2009 Health Care Survey of DoD Beneficiaries:

Adult Technical Manual

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Final

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Introduction

The 2009 Adult Health Care Survey of Department of Defense Beneficiaries (HCSDB) is the primary tool with which the TRICARE Management Activity (TMA) of the Assistant Secretary of Defense (Health Affairs) monitors the opinions and experiences of military health system (MHS) beneficiaries. The HCSDB was conducted annually from 1995 to 2000, at which time the survey was fielded quarterly. Specifically, the HCSDB is designed to answer the following questions:

- How *satisfied* are DoD beneficiaries with their health care and their health plan?

- How does overall satisfaction with military treatment facilities (MTFs) compare with satisfaction with civilian treatment facilities (CTFs)?

- Does *access* to military and civilian facilities meet TRICARE standards?

- Is beneficiaries' use of preventive health care services in line with national goals, such as those outlined in *Healthy People 2010*?

- Has beneficiaries' use of MHS services changed over time?

- What aspects of MHS care contribute most to beneficiary satisfaction with their health care experiences? With which aspects are beneficiaries least satisfied?

- What are the demographic characteristics of MHS beneficiaries?

The HCSDB is a quarterly mail survey of a representative sample of MHS beneficiaries. It is sponsored by the TRICARE Management Activity in the Office of the Assistant Secretary of Defense (Health Affairs) [OASD(HA)] under authority of the National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484). Altarum Institute prepares the sampling frame, which consists of selected variables for each MHS beneficiary in the Defense Enrollment Eligibility Reporting System (DEERS) database on a specified reference date. DEERS includes everyone who is eligible for a MHS benefit (i.e., everyone in the Uniformed Services—Army, Air Force, Navy, Marine Corps, Coast Guard, the Commissioned Corps of the Public Health Service, National Oceanic and Atmospheric Administration, Guard/Reserve personnel who are activated for more than 30 days – and other special categories of people who qualify for benefits). DEERS includes those on active duty, those retired from military careers, immediate family members of people in the previous two categories, and surviving family members of people in these categories.

Each quarter, Mathematica Policy Research (Mathematica, Washington, D.C.) prepares a sample of 50,000 adult beneficiaries. Synovate fields the survey each quarter. Mathematica analyzes the survey data, reports on the results and prepares a public use file and a Codebook and Users' Guide. Each year, Mathematica prepares an annual public use dataset (the "2009 Health Survey of DoD Beneficiaries: Adult Technical Manual"), and the "Health Care Survey of DoD Beneficiaries: Annual Report."

This manual is designed to be used as a reference by analysts in OASD (HA) as they interpret the survey findings and prepare briefings. This manual provides detailed documentation on the following: naming conventions for variables, editing procedures, selection of records, computation of response rates, recoding of variables, computation of weights, variance estimation, and construction of tables and charts for the reports. This manual also enables an analyst to follow, and

replicate if desired, the processing of the raw survey data through each step in the production of the final database.

A. OVERVIEW OF THE HCSDB

1. Sample Design

The 2009 adult sample design is a stratified random sample with 51,000 adult beneficiaries selected each quarter. Stratification is based on three variables: analytical group, geographic area, and enrollment/beneficiary type. The *analytical group* stratification is determined in cooperation with TRICARE Management Activity (TMA) staff, and is important to data users and policymakers. The criteria for the analytical group stratification is the following: (1) beneficiaries younger than 65, enrolled with a military primary care manager (PCM), or active duty beneficiaries; (2) beneficiaries younger than 65, who use Managed Care Support Contractors; (3) beneficiaries younger than 65, who use TRICARE Standard/Extra; (4) beneficiaries enrolled in TRICARE Reserve Select; (5) beneficiaries age 65 or older enrolled in TRICARE Plus; and (6) beneficiaries age 65 or older not enrolled in TRICARE Plus.

The *geographic area* stratification includes military treatment facilities (MTFs) which TMA is interested in, TNEX regions for those enrolled in other MTFs, and TNEX regions for all other beneficiaries.

The *enrollment/beneficiary* type includes (1) active duty; (2) active duty family members enrolled in Prime with a civilian PCM; (3) active duty family members enrolled in Prime with a military PCM; (4) active duty family members not enrolled in Prime; (5) retirees and their family members younger than 65 enrolled in Prime with a civilian PCM; (6) retirees and their family members younger than 65 enrolled in Prime with a military PCM; (7) retirees and their family members younger than 65 not enrolled in Prime; (8) retirees and their family members age 65 and older; and (9) beneficiaries enrolled in TRICARE Reserve Select.

The sample selection process involved five steps: (1) construction of the sampling frame and definition of sampling strata; (2) allocation of the sample to strata to satisfy the study's precision goals; (3) selection of the survey sample using a permanent random number sample selection algorithm; (4) creation of the sampling weights, which reflect the probability of selection; and (5) verification of results to ensure that sampling was implemented as specified. Please see Mathematica Policy Research, Inc (2008) for details on sample design.

2. 2009 Adult HCSDB

The HCSDB questionnaire was converted from an annual to a quarterly survey in 2000, and is fielded each quarter to a representative sample of MHS beneficiaries. Beginning with 2006, reporting and documentation of the HCSDB is performed on a fiscal year basis. In previous years, reporting and documentation were based on calendar years. Thus this document, the "2009 Health Survey of DoD Beneficiaries: Adult Technical Manual", describes Quarters I-IV of fiscal year 2009. Throughout this document, Quarter I, 2009 refers to Quarter I of fiscal year 2009. The adult questionnaires for Quarters I-IV are reproduced in Appendix A. The 2009 survey consists of an unchanging core questionnaire with different quarterly supplements.

The core adult questionnaire includes the following topics:

- Use of health care
- Use of preventive health care
- Type of health plan covering the beneficiary

- Satisfaction with health plan

- Satisfaction with health care

- Access to health care

- Demographic characteristics

Beginning in 2002, the survey naming convention was changed. Prior to 2000, the year in the survey's name reflected the year that respondents were asked to think about when answering the questions. For example, although the 2000 HCSDB was fielded in 2001, it asked beneficiaries to think about the prior 12 months (mostly 2000) as the reference period for their answer. Under the new naming convention, the survey title refers to the year the questionnaires are fielded, so last year's survey was the 2008 HCSDB and this year's survey is the 2009 HSCDB. Because of the name change, there is no "2001" survey, even though the questionnaire was administered continuously in each quarter of 2001.

3. Survey Response – Quarters I-IV

Each quarter in 2009, Synovate sent surveys to a random sample of 51,000 adult MHS beneficiaries. In Quarter 1, 2009 and Quarter 2, 2009, Mathematica randomly split the 51,000 sample into two groups to test two versions of the questionnaire; one using questions from CAHPS version 3.0 and the other from CAHPS version 4.0. By the end of the fielding period in Quarter I, Synovate received completed surveys from 25.5 percent of the sample. In Quarter II, 25.2 percent of the sample members returned completed surveys while in Quarter III, 23.2 percent of the sample members returned completed surveys. In Quarter IV, Synovate received complete surveys from 23.1 percent of the beneficiaries sampled. Information pertaining to how Mathematica developed these response rates is presented in Chapter 3.

It should be noted that the above cited response rates do not reflect late arriving responses from the surveys fielded in the first three quarters. The response rates are based on the number of completed surveys returned to the survey vendor at the end of the fielding period. The annual combined dataset, however, includes the surveys returned after the end of the fielding period. Therefore, the revised annual response rates were 26.9 percent for Quarter I, 26.1 percent for Quarter II, 24.6 percent for Quarter III, and 25.2 percent for the combined annual dataset.

4. Database Development

Mathematica edits the data, selects records for inclusion in the final database, and constructs variables to be used in reports. To ensure that the survey data is representative of the DEERS population, Mathematica develops weights to take account of the initial sampling, the sampled individuals who chose not to respond to the survey, and post-stratification if the beneficiary's key information is updated.

5. Reports

Mathematica analyzes the data and produces several reports explaining the findings on topics such as satisfaction, access to care, health care use, and use of preventive services. These reports will be available on the TRICARE website at http://www.TRICARE.USD.mil:

- 2009 TRICARE Beneficiary Reports

- 2009 TRICARE Consumer Watch

- Health Care Survey of DoD Beneficiaries: Annual Report

B. ORGANIZATION OF THIS MANUAL

Chapter 2 explains how the database was developed. It covers naming conventions, editing procedures, record selection criteria, descriptions of all variable types, definitions of each constructed variable, the development of satisfaction and health status scales, and weighting procedures. Chapter 3 describes how the database was analyzed. This includes rules for developing response rates, the development of table and chart specifications for the Health Care Survey of DoD Beneficiaries: (The HCSDB Annual Report, TRICARE Beneficiary Reports and TRICARE Consumer Watch), an explanation of the dependent variables and independent variables, and the methodology for estimating the variance of estimates. The manual concludes with a series of technical appendices:

- Appendix A: Annotated questionnaire – Quarters I-IV survey questionnaire annotated with database variable names

- Appendix B: Plan for Data Quality – Coding Scheme – Quarters I-IV

- Appendix C: A table mapping MTFs to the catchment area and DMIS ID

- Appendix D: Response rate tables for selected domains – Quarters I-IV and Combined Annual

- Appendix E: Technical Description of the 2009 TRICARE Beneficiary Reports

- Appendix F: SAS Code for File Development – Quarters I-IV

- Appendix G: SAS Code for Statistical and Web Specifications for the 2009 TRICARE Beneficiary Reports - Quarters I-IV

- Appendix H: SAS Code for 2009 TRICARE Consumer Watch - Quarters I-IV and Combined Annual

- Appendix I: SAS Code for Statistical and Web Specifications for the 2009 TRICARE Purchased Care Beneficiary Reports - Quarters I-IV

- Appendix J: SAS Code for 2009 TRICARE Purchased Care Consumer Watch - Quarters I-IV and Combined Annual

- Appendix K: Sample SUDAAN Code for Calculating Variance Estimates

Chapter

2

Database

This chapter explains the process of developing the raw survey data into a final database free of inconsistencies and ready for analysis. We discuss the design of the database; cleaning, editing, and implementing the Coding Scheme; record selection; and constructing variables.

A. DATABASE DESIGN

The 2009 Adult HCSDB consists of variables from various sources. When Synovate delivers the file to Mathematica after fielding the sample, the following types of variables are present:

- DEERS information on beneficiary group, social security number (SSN), sex, age, etc.

- Sampling variables used to place beneficiaries in appropriate strata

- Core and supplemental questionnaire responses

- Synovate information from fielding the sample, such as scan date and flags developed during the fielding to assist us in determining eligibility

Mathematica removes all identifying information such as SSN to protect the confidentiality of the respondents. Mathematica then adds the following types of variables to the database:

- Updated DEERS variables from the time of data collection to be used for post-stratification

- Coding Scheme flags

- Constructed variables for analysis

- Weights

In addition, Mathematica updates and cleans the questionnaire responses using the Coding Scheme tables found in Appendix B. Each quarter, the final public-use database will contain only the recoded responses; this will help users to avoid using an uncleaned response for analysis. We structured the final database so that all variables from a particular source are grouped by position. Table 2.1 lists all variables in the Quarters I-IV, 2009 database by source. For specific information on variable location within the database, refer to the "2009 Adult Health Care Survey of DoD Beneficiaries: Adult Codebook and User's Guide."

1. Data Sources

a. DEERS

Altarum provided the sampling frame to Mathematica prior to the selection of the sample. DEERS information such as sex, date of birth, and service are retained in the database; this data is current as of the time of sample selection.

b. **Sampling Variables**

Mathematica developed variables during the sample selection procedure that were instrumental in placing beneficiaries in appropriate strata. Many of the variables are retained on the database.

c. **Questionnaire Responses**

These variables represent the cleaned values for all responses to the questionnaire. The original values scanned in by Synovate are cleaned and recoded as necessary to ensure that responses are consistent throughout the questionnaire. The Coding Scheme tables found in Appendix B are the basis for insuring data quality.

d. **Survey Fielding Variables**

In the process of fielding the survey, Synovate created a number of variables that we retain in the database. Certain of these variables, information that came in by phone, for example, assist us in determining eligibility.

e. **Coding Scheme Flags**

Each table of the Coding Scheme (see Appendix B) has a flag associated with it that indicates the pattern of original responses and any recodes that were done. For example, the table for Note 5 has a flag N5.

f. **Constructed Variables**

Mathematica constructed additional variables that were used in the TRICARE Beneficiary Reports, TRICARE Consumer Watch, and the "Health Care Survey of DoD Beneficiaries: Annual Report." Often these variables were regroupings of questionnaire responses or the creation of a binary variable to indicate whether or not a TRICARE standard was met. Complete information on each constructed variable is found in section 2.D.

g. **Weights**

Mathematica developed weights for each record in the final database. Weights are required for the following reasons:

- To compensate for variable probabilities of selection

- To adjust for differential response rates

- To improve the precision of survey-based estimates through post-stratification

Weighting procedures are discussed in section 2.E.

TABLE 2.1

VARIABLES IN THE 2009 ADULT HCSDB DATA FILE – QUARTERS I-IV

SAMPLING VARIABLES	
MPRID	- Unique MPR identifier
SVCSMPL	- Branch of service sampling variable
SEXSMPL	- Sex sampling variable
STRATUM	- Sampling stratum
CACSMPL	- Catchment area
ENBGSMPL	- Enrollment by beneficiary category
MPCSMPL	- Military personnel category
NHFF	- Stratum sample size
SERVAREA	- Service area
DCATCH	- Catchment Area
MSM	- Multiple service market areas
D_FAC	- Facility type code
D_HEALTH	- Health service region
TNEXREG	- TRICARE next generation of contracts region grouping
DEERS VARIABLES	
SERVAFF	- Service affiliation
MRTLSTAT	- Marital status
RACEETHN	- Race/Ethnic code
PNSEXCD	- Person gender
DAGEQY	- Age at time of data collection
FIELDAGE	- Age at start of fielding period
PCM	- Primary manager code (civilian or military)
ACV	- Alternate care value
DBENCAT	- Beneficiary category
DMEDELG	- Medical privilege code
DSPONSVC	- Derived sponsor branch of service
MBRRELCD	- Member relationship code
MEDTYPE	- Medicare type
PATCAT	- Aggregated beneficiary category
PNTYPCD	- Person type code
PNLCATCD	- Personnel category code (duty status)
QUESTIONNAIRE RESPONSES	
H09001	- Are you the person listed on envelope
H09002A	- Health plan(s) covered: TRICARE Prime
H09002C	- Health plan(s) covered: TRICARE Ext/Stnd
H09002F	- Health plan(s) covered: Medicare
H09002G	- Health plan(s) covered: FEHBP
H09002H	- Health plan(s) covered: Medicaid
H09002I	- Health plan(s) covered: Civilian HMO
H09002J	- Health plan(s) covered: Other civilian
H09002K	- Health plan(s) covered: USFHP
H09002L	- Health plan(s) covered: Not sure
H09002M	- Health plan(s) covered: Veterans
H09002N	- Health plan(s) covered: TRICARE Plus
H09002O	- Health plan(s) covered: TRICARE For Life
H09002P	- Health plan(s) covered: TRICARE Supplemental Insurance
H09002Q	- Health plan(s) covered: TRICARE Reserve Select
H09002R	- Health plan(s) covered: Other Non-US government health insurance
H09003	- Which health plan did you use most in the past 12 months?
H09004	- Months or years in a row with health plan
H09005	- In last year: facility used most for health care
H09006	- In last year: have illness/injury/condition that needed care right away

H09007	- In last year: how often got care as soon as you believed you need it
H09008	- In last year: wait between trying to get care and actually seeing a provider for an illness or injury
H09009	- In last year: made appointments for non-urgent health care
H09010	- In last year: how often got appointments for non-urgent health care as soon as you wanted
H09011	- In last year: days between making an appointment for regular or routine care and actually seeing a provider
H09012	- In last year: times went to an emergency room for own care
H09013	- In last year: times went to a doctors office or clinic for yourself (not counting times went to an emergency room)
H09014	- In last year: how often talk to doctor or other health care provider about illness prevention
H09015	- In last year: doctor or other health care provider talked about more than 1 choice for treatment
H09016	- In last year: doctor talked about pros/cons of each treatment/health care choice
H09017	- In last year: doctor/health care provider asked which treatment option you thought was best for you when there was more than one choice of treatment
H09018	- Rating of all health care in last year
H09019	- Have one person you think of as your personal doctor
H09020	- In last year: number of times visited personal doctor for care for self
H09021	- In last year: how often personal doctor listened carefully to you
H09022	- In last year: how often personal doctor explained things in a way that was easy to understand
H09023	- In last year: how often your personal doctor showed respect for what you have to say
H09024	- In last year: how often your personal doctor spent enough time with you
H09025	- In last year: got care from doctor or other health provider other than personal doctor
H09026	- In last year: how often personal doctor seemed informed and up-to-date about care received from other doctors
H09027	- Rating of your personal doctor
H09028	- In last year: tried to make appointment to see a specialist
H09029	- In last year: how often it was easy to get appointments with specialists
H09030	- In last year: how many specialists seen
H09031	- Rating of specialist seen most often in last year
H09032	- In last year: tried to get care, tests, or treatment through health plan
H09033	- In last year: how often easy to get care, tests, or treatment you thought you needed through health plan
H09034B	- In last year: looked for information in written material or on the Internet about how health plan works
H09034	- In last year: how often written material/Internet provide information you needed about how your plan works
H09035	- In last year: looked for information from health plan on cost of health care service or equipment
H09036	- In last year: how often able to find out cost of health care service or equipment from health plan
H09037	- In last year: looked for information from health plan on cost of prescription medications
H09038	- In last year: how often able to find out cost of prescription medications
H09039	- In last year: tried to get information or help from health plan's customer service
H09040	- In last year: how often did customer service give needed information or help
H09041	- In last year: how often did customer service treat with courtesy and respect
H09042	- In last year: health plan gave forms to fill out
H09043	- In last year: how often forms from health plan were easy to fill out
H09044	- In last year: sent in any claims to your health plan
H09045	- In last year: how often health plan handled claims quickly
H09046	- In last year: how often health plan handled claims correctly
H09047	- Rating of all experience with health plan
H09048	- Blood pressure: when last reading

H09049	- Blood pressure: know if blood pressure is too high or not
H09050	- When did you last have a flu shot
H09051	- Smoked at least 100 cigarettes in life
H09052	- Smoke everyday, some days, or not at all
H09053	- Last year: number of visits advised to quit smoking
H09054	- Last year: number of visits medication was recommended or discussed to assist with quitting smoking
H09055	- Last year: number of visits recommended or discussed methods and strategies to assist quitting smoking
H09056	- Are you male or female
H09057	- Female: Last have a Pap smear test
H09058	- Female: Are you under age 40
H09059	- Female: Last time breasts checked mammography
H09060	- Female: Been pregnant in last year or pregnant now
H09061	- Female: In what trimester is your pregnancy
H09062	- Female: Trimester first received prenatal care
H09063	- In general how would you rate your overall health
H09064	- Limited in any way in any activities because of any impairment or health problem
H09065	- In last year: seen doctor or other health provider 3 or more times for same condition or problem
H09066	- Condition lasted for at least 3 months
H09067	- Need to take medicine prescribed by a doctor
H09068	- Medicine to treat condition that has lasted for at least 3 months
H09069F	- Feet portion of height without shoes
H09069I	- Inches portion of height without shoes
H09070	- Weight without shoes in pounds
H09071	- Are you Spanish, Hispanic, or Latino
H09071A	- No, not Spanish, Hispanic, or Latino
H09071B	- Yes, Mexican, Mexican American, Chicano
H09071C	- Yes, Puerto Rican
H09071D	- Yes, Cuban
H09071E	- Yes, other Spanish, Hispanic, or Latino
H09072	- Currently covered Medicare part A
H09073	- Currently covered Medicare part B
H09074	- Currently covered Medicare supplemental
SREDA	- Highest grade completed
SRRACEA	- Race: White
SRRACEB	- Race: Black or African American
SRRACEC	- Race: American Indian or Alaska native
SRRACED	- Race: Asian
SRRACEE	- Race: Native Hawaiian/other Pacific Islanders
SRAGE	- What is your age now?
S09B01	- Self rating of overall mental/emotional health
S09B02	- Last year: needed treatment/counseling for personal/family problem
S09B03	- Last year: problem getting needed treatment/counseling
S09B04	- Last year: rate of treatment/counseling received
S09B22	- You or spouse deployed to a combat zone within the past two years
S09B22A	- Spouse and/or I deployed to a combat zone in the past year
S09B22B	- Spouse and/or I deployed to a combat zone within the past two years
S09B22C	- Neither I nor my spouse deployed to a combat zone within the past two years
S09B23	- Past month: had nightmares or unwanted thoughts about an experience that was frightening, horrible, or upsetting
S09B24	- Past month: tried hard not to think about or went out of the way to avoid situations that remind you of experience that was frightening, horrible, or upsetting
S09B25	- Past month: constantly on guard, watchful, or easily startled after experience that was frightening, horrible, or upsetting

S09B26	- Past month: felt numb or detached from others, activities, or surroundings after experience that was frightening, horrible, or upsetting
S09D01	- Used/tried any smokeless tobacco products such as chewing tobacco or snuff
S09D02	- Currently use chewing tobacco or snuff every day, some days, or not at all
S09D03	- Currently use any tobacco products other than cigarettes, like cigars/pipes/kreteks/other
S09D04	- Past year: number of visits dr/other health provider advised to quit use of tobacco products other than cigarettes
S09D05	- In a typical week: amount of dip/chewing tobacco/snuff/snus used
S09N11	- Preference between military and civilian facilities for all of your health care
S09Q01	- Had blood stool test using a home kit
S09Q02	- Time since last blood stool test using a home kit
S09Q03	- Had sigmoidoscopy or colonoscopy exam
S09Q04	- Time since last sigmoidoscopy
S09Q05	- Time since last colonoscopy
S09W01	- Last emergency room visit due to an accident, injury or some health problem
S09W02	- Able to contact doctor or other health professional about health problem before going to the emergency room
S09W03	- Doctor or health professional told you to go to the emergency room
S09W04	- Tried to see or call a doctor or other health professional about this problem before going to the emergency room or calling for emergency medical assistance
S09W05	- At the time you went to the emergency room, there were places to go to for treatment other than the emergency room
S09W06	- Why decide to go to emergency room rather than alternative
S09W07	- As a result of this emergency room visit, admitted to the hospital for an overnight stay
S09009	- Had the same personal doctor or nurse before joining this health plan
S09010	- Since joined health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?
S09011	- Able to see my provider when needed
S09012	- Last visit to provider's office: number days wait between making the appointment and actually seeing a provider
S09013	- Satisfaction with the length of time waited for appointment
S09014	- Satisfaction with health care received during last visit
S09K01	- Sometimes your health care provider cares more about what is convenient for him/her than about your medical needs
S09K02	- Health care provider is always thoughtful and thorough
S09K03	- Completely trust health care provider's decisions about which medical treatments are best for you
S09K04	- Health care provider is completely honest in telling you about all of the different treatment options available for your condition
S09K05	- All in all, have complete trust in health care provider
S09K12	- Health plan cares more about saving money than about getting you the treatment you need
S09K13	- Feel the need to double-check everything your health plan does
S09K14	- Believe health plan will pay for everything it is supposed to, even really expensive treatments
S09K15	- Think health plan will give you a straight answer to questions
S09K16	- All in all, have complete trust in health plan
S09J01	- Can obtain civilian health insurance for self through some civilian group
S09J02A	- Obtain civilian coverage: my current employer
S09J02B	- Obtain civilian coverage: COBRA from previous employer
S09J02C	- Obtain civilian coverage: retirement coverage from previous employer
S09J02D	- Obtain civilian coverage: family member's current employer
S09J02E	- Obtain civilian coverage: COBRA from family member's previous employer
S09J02F	- Obtain civilian coverage: retirement coverage from family member's previous employer
S09J02G	- Obtain civilian coverage: another organization
S09J02H	- Obtain civilian coverage: government program

S09J02I	- Obtain civilian coverage: don't know
S09J03	- Are you or you and others in household covered by a civilian policy
S09J04	- I or family member pay all or part of insurance premium for civilian coverage
S09J05	- How much (in dollars) per month do you or family member pay for this coverage
S09J06	- Used civilian coverage for any of your health care in the past 12 months
S09J07A	- Not used civilian coverage: not available
S09J07B	- Not used civilian coverage: had better choice of doctors with TRICARE
S09J07C	- Not used civilian coverage: don't want to pay premium for civilian coverage
S09J07D	- Not used civilian coverage: better customer service with TRICARE
S09J07E	- Not used civilian coverage: civilian benefits are poor compared to TRICARE
S09J07F	- Not used civilian coverage: personal doctor is only available through TRICARE
S09J07G	- Not used civilian coverage: want to be sure I can always use military health care
S09J07H	- Not used civilian coverage: pay less for TRICARE than I would for civilian care
S09J07I	- Not used civilian coverage: prefer to use military doctors
S09J07J	- Not used civilian coverage: prefer military hospitals
S09J07K	- Not used civilian coverage: have not needed health care
S09J07L	- Not used civilian coverage: another reason
S09J07M	- Not used civilian coverage: receive employer bonus for not taking employee coverage
S09J07N	- Not used civilian coverage: family member receives employer bonus for not taking employee coverage
S09J08	- Used TRICARE for any health care (except for prescription drugs) in the past 12 months
S09J09A	- Not used TRICARE: greater choice of doctors with my civilian plan
S09J09B	- Not used TRICARE: don't want to pay the premium for TRICARE
S09J09C	- Not used TRICARE: better customer service with civilian plans
S09J09D	- Not used TRICARE: personal doctor is not available to me through TRICARE
S09J09E	- Not used TRICARE: TRICARE benefits are poor compared to my civilian plan
S09J09F	- Not used TRICARE: easier to get care through civilian plan
S09J09G	- Not used TRICARE: pay less for civilian care than I would for TRICARE
S09J09H	- Not used TRICARE: no military facilities near me
S09J09I	- Not used TRICARE: prefer civilian doctors
S09J09J	- Not used TRICARE: prefer civilian hospitals
S09J09K	- Not used TRICARE: have not needed health care
S09J09L	- Not used TRICARE: another reason
S09J10	- Dropped civilian coverage in past 12 months
S09J11	- Current employment status
S09J12	- Family's income before taxes in 2006
S09Z01	- Spouse deployed to a combat zone
S09Z02	- Rating of level of stress in personal life
S09Z03	- Extent of concern: childcare arrangement
S09Z04	- Extent of concern: child's education
S09Z06	- Extent of concern: communicating with spouse
S09Z07	- Extent of concern: managing household expenses
S09Z10	- Extent of concern: marital problems
S09Z11	- Extent of concern: personal health problems
S09Z12	- Extent of concern: family member health problem
S09Z13	- Extent of concern: job/education demands
S09Z14	- Extent of concern: major financial hardship/bankruptcy
S09Z15	- Sought resources available for deployed personnel family
S09Z16	- How helpful was information in coping with spouse deployment
S09Z17	- Problem finding information
ONTIME	- Responded within 8 weeks of mail-out
FLAG_FIN	- Final disposition
DUPFLAG	- Multiple response indicator
FNSTATUS	- Final status
KEYCOUNT	- Number of key questions answered
QUARTER	- Survey quarter

WEB	- Web survey indicator
VERSION	- Indicator of a version 3 or 4 of the questionnaire
N1	- Coding scheme note 1
N1A1	- Coding Scheme note 1A1
N1A2	- Coding Scheme note 1A2
N1A3	- Coding Scheme note 1A3
N1A4	- Coding Scheme note 1A4
N1A5	- Coding Scheme note 1A5
N2	- Coding scheme note 2
N3	- Coding scheme note 3
N3A1	- Coding scheme note 3A1
N3A2	- Coding scheme note 3A2
N3A3	- Coding scheme note 3A3
N3A4	- Coding scheme note 3A4
N4	- Coding scheme note 4
N5	- Coding scheme note 5
N6	- Coding scheme note 6
N7	- Coding scheme note 7
N8	- Coding scheme note 8
N8A1	- Coding scheme note 8A1
N9	- Coding scheme note 9
N10	- Coding scheme note 10
N10A1	- Coding scheme note 10A1
N11	- Coding scheme note 11
N11B	- Coding scheme note 11B
N12	- Coding scheme note 12
N13	- Coding scheme note 13
N14	- Coding scheme note 14
N15	- Coding scheme note 15
N16	- Coding scheme note 16
N16A1	- Coding scheme note 16A1
N16A2	- Coding scheme note 16A2
N17	- Coding scheme note 17
N18	- Coding scheme note 18
N18A1	- Coding scheme note 18A1
N19A	- Coding scheme note 19A
N19B	- Coding scheme note 19B
N20	- Coding scheme note 20
N21	- Coding scheme note 21
N22	- Coding scheme note 22
N23	- Coding scheme note 23
N23A1	- Coding scheme note 23A1
N24	- Coding scheme note 24
N24A1	- Coding scheme note 24A1
N24B1	- Coding scheme note 24B1
N24B2	- Coding scheme note 24B2
MISS_1	- Count of: violates skip pattern
MISS_4	- Count of: incomplete grid error
MISS_5	- Count of: scalable response of don't know
MISS_6	- Count of: not applicable - valid skip
MISS_7	- Count of: out-of-range error
MISS_8	- Count of: multiple response error
MISS_9	- Count of: no response - invalid skip
MISS_TOT	- Total number of missing responses

CONSTRUCTED VARIABLES

XSERVAFF	- Service affiliation
XTNEXREG	- TRICARE next generation of contracts region grouping

XBMI	- Body mass index
XBMICAT	- Body mass index category
XENRLLMT	- Enrollment in TRICARE prime
XENR_PCM	- Enrollment by PCM type
XINS_COV	- Insurance coverage
XBENCAT	- Beneficiary category
XENR_RSV	- Enrollment by PCM type - reservist
XINS_RSV	- Insurance coverage - reservist
XREGION	- Region
XCATCH	- XCATCH - Catchment area (reporting)
USA	- CONUS/OCONUS indicator
XOCONUS	- Overseas Europe/Pacific/Latin indicator
OUTCATCH	- Out of catchment area indicator
XSEXA	- Male or female (recode)
XBNFGRP	- Constructed beneficiary group
KMILOPQY	- Outpatient visits to military facility
KCIVOPQY	- Outpatient visits to civilian facility
KCIVINS	- Beneficiary covered by civilian insurance
HP_PRNTL	- Pregnant in last year received care in 1st trimester
HP_MAMOG	- Women age 40 and over mammography in past 2 years
HP_MAM50	- Women age 50 and over mammography in past 2 years
HP_PAP	- All women pap smear in last 3 years
HP_BP	- Blood pressure check in last 2 years know results
HP_FLU	- Age 65 and older flu shot in last 12 months
HP_SMOKE	- Advised to quit smoking in last 12 months
HP_SMKH2	- Smoker under HEDIS definition (modified)
HP_CESH2	- Had smoking cessation counseling - HEDIS (modified)
HP_OBESE	- Obese or morbidly obese
POSTCELL	- Poststratification cell for new weights
BWT	- Basic sampling weight
FWRWT_V4	- Final weight for CAHPS4.0 questionnaire for Quarters I and II
FWRWT_V3	- Final weight for CAHPS3.0 questionnaire for Quarters I and II
FWRWT	- Final quarterly weight
CFW_V4	- Annual weight for CAHPS 4.0 questionnaire
CFW	- Combined annual final weight

2.   Variable Naming Conventions

To preserve continuity with survey data from previous years, Mathematica followed the same variable naming conventions for the core questions used for the 1996, 1997, 1998, 1999, 2000, 2002, 2003, 2004, 2005, 2006, 2007, 2008 and 2009 survey data. Variable naming conventions for the 2009 Adult HCSDB core and supplemental questions, shown in Table 2.2 correspond to those of previous years. The suffix "_0" will be used to distinguish the original version of the variable from the recoded version. The public use files for the adult survey will contain only recoded variables.

Variables created from most survey questions begin with the character "H." The next two characters are the third and fourth digits of the survey year. A small number of self-reported demographic variables begin with the characters "SR."

Each quarter, the questionnaire includes a battery of questions on specific health care topics concerning services offered to MHS beneficiaries. Supplemental questions contain the same number of alphanumeric characters as the core questions; each variable begins with an "S" to distinguish it as a supplemental question.

TABLE 2.2

NAMING CONVENTIONS FOR 2009 HCSDB VARIABLES – QUARTERS I-IV
(VARIABLES REPRESENTING SURVEY QUESTIONS)

1st Character: Survey Type	2nd – 3rd Characters: Survey Year	4th – 6th Characters: Question #	Additional Characters: Additional Information
H= Health Beneficiaries (18 and older, Adult Questionnaire)	09	001 to 074 --------------------------------- 008 to 037, 039 to 048, and 054	A to R are used to label responses associated with a multiple response question --------------------------------- A used to designate variables from CAHPS 3.0 _____
_____ S = Supplemental Question		Quarter I B01-B04 – Supplemental questions about overall mental or emotional health. D01-D04 – Supplemental questions about respondent's use of tobacco products. N11 – Supplemental question about civilian and military healthcare facilities Quarter II B01-B04 – Supplemental questions about overall mental or emotional health. D01-D05 – Supplemental questions about respondent's use of tobacco products. Q01-Q05 – Supplemental questions about colon cancer screening tests. N11 – Supplemental question about civilian and military healthcare facilities Quarter III 009-014 – Supplemental questions about respondent's personal doctor and about the visits to the respondent's healthcare provider. B01-B04, B22-B26 – Supplemental questions about overall mental or emotional health. K01-K05, K12-K16 – Supplemental questions about the level of trust respondents have in their medical provider. N11 – Supplemental question about civilian and military healthcare facilities	A to N are used to label responses associated with a multiple response question

		W01-W07 - Supplemental questions are about the reasoning behind the respondent's decision to visit the emergency room. Quarter IV 009-010 – Supplemental questions about respondent's personal doctor. B01-B04 – Supplemental questions about overall mental or emotional health. D02-D03 – Supplemental questions about respondent's use of tobacco products. J01-J12 – Supplemental questions about civilian health insurance coverage. ZO1-Z04, Z06-Z07, Z10-Z17 – Supplemental questions about stressors in personnel file and deployment-related stress.	

1st Characters: Variable Group	Additional Characters: Additional Information
SR=Self-reported demographic data	Descriptive text, e.g., SREDA
N=Coding scheme notes	Number referring to Note, e.g., N2
X=Constructed independent variable	Descriptive text, e.g., XREGION
HP=Constructed *Healthy People 2010* variable	Descriptive text, e.g., HP_BP (had blood pressure screening in past two years and know the results)
K=Constructed dependent variables	Descriptive text, e.g., KMILOPQY (total number of outpatient visits to military facility)
FW= Weighting variables	Descriptive text, e.g., FWRWT for the overall final quarterly weight, FWRWT_V3 for the version 3 final quarterly weight, and FWRWT_V4 for the version 4 final quarterly weight; Number referring to replicate weights, e.g., FWRWT10, FWTV3_10, and FWTV4_10
CFW= Annual weighting variables	Descriptive text, e.g., CFW for the final annual weight CFW_V3 for the version 3 final annual weight, and CFW_V4 for the version 4 final annual weight; Number referring to replicate weights, e.g., CFW10, CFWV3_10, and CFWV4_10

3. Missing Value Conventions

The 2009 conventions for missing variables are the same as the 2008 conventions. All missing value conventions used in the 2009 HCSDB are shown in Table 2.3

TABLE 2.3

CODING OF MISSING DATA AND "NOT APPLICABLE" RESPONSES

ASCII or Raw Source Data	Edited and Cleaned SAS Data	Description
Numeric	Numeric	
-9	.	No response
-7	.O	Out of range error
-6	.N	Not applicable or valid skip
-5	.D	Scalable response of "Don't know" or "Not sure"
-4	.I	Incomplete grid error
-1	.C	Question should have been skipped, not answered
	.B	No survey received

B.   CLEANING AND EDITING

Data cleaning and editing procedures ensure that the data are free of inconsistencies and errors. Standard edit checks include the following:

- Checks for multiple surveys returned for any one person
- Range checks for appropriate values within a single question
- Logic checks for consistent responses throughout the questionnaire

We computed frequencies and cross tabulations of values at various stages in the process to verify the accuracy of the data. Data editing and cleaning proceeded in the following way:

1.   Scan Review

Synovate spot checked the scanned results from the original survey to verify the accuracy of the scanning process and made any necessary corrections by viewing the returned survey.

2.   Additional Synovate Editing and Coding

In preparing the database for Mathematica, Synovate used variable names and response values provided by Mathematica in the annotated questionnaires (see Appendix A). Synovate delivered to Mathematica a database in SAS format. In this database, any questions with no response were encoded with a SAS missing value code of '.'.

3.   Duplicate or Multiple Surveys

At this stage, Synovate delivered to Mathematica a file containing one record for every beneficiary in the sample, plus additional records for every duplicate survey or multiple surveys received from any beneficiary. These duplicates and multiples were eliminated during record selection, and only the most complete questionnaire in the group was retained in the final database. Record selection is discussed in Section 2.C.

4.   Removal of Sensitive or Confidential Information

The file that Mathematica received from Synovate contained sensitive information such as Social Security Number (SSN). Any confidential information was immediately removed from the file. Each beneficiary had already been given a generic ID (MPRID) substitute during sample selection, and the MPRID was retained as a means to uniquely identify each individual.

5.   Initial Frequencies

Mathematica computed frequencies for all fields in the original data file. These tabulations served as a reference for the file in its original form and allowed comparison to final frequencies from previous years, helping to pinpoint problem areas that needed cleaning and editing. Mathematica examined these frequencies and cross-tabulations, using the results to adapt and modify the cleaning and editing specifications as necessary.

6.   Data Cleaning and Recoding of Variables

Mathematica's plan for data quality is found in the 2009 Adult Coding Scheme for Quarters I-IV. It contains detailed instructions for all editing procedures used to correct data inconsistencies and errors. The Coding Scheme tables for Quarters I-IV are found in Appendix B. These tables outline in detail the approach for recoding self-reported fields, doing range checks, logic checks, and skip pattern checks to insure that responses are consistent throughout the questionnaire. The Coding Scheme tables specify all possible original responses and any recoding, also indicating if backward coding or forward coding was used. Every skip pattern is assigned a note number shown in the annotated questionnaire (Appendix A). This note number defines the flag (for example, the Note 5 flag is N5) that is set to indicate the pattern of the original responses and any recoding. Thus, if the value of N5 is 2, the reader can look at line 2 in the Note 5 table for the original and recoded response values.

The SAS programs implementing the Coding Scheme for each quarter are found in Appendix F.

a.   Check Self-Reported Fields

Several survey questions seek information that can be verified with DEERS data and/or sampling variables. Nevertheless, in recoding these self-reported fields (such as sex, active duty status, and TRICARE enrollment) we used the questionnaire responses unless they were missing; in which case, we used the DEERS data. For example, if the question on the sex of the beneficiary was not answered, the recoded variable for self-reported sex was not considered missing but was given the DEERS value for gender. If there was any disagreement between questionnaire responses and DEERS data, the questionnaire response generally took precedence.

In many tables and charts in the reports, the DEERS information was used rather than the recoded self-reported information for active duty status and TRICARE enrollment.

b.   Skip Pattern Checks

At several points in the survey, the respondent should skip certain questions. If the response pattern is inconsistent with the skip pattern, each response in the series was checked to determine which are most accurate, given the answers to other questions. Questions that are appropriately skipped were set to the SAS missing value of '.N'. Inconsistent responses, such as answering questions that should be skipped or not answering questions that should be answered, were examined for patterns that could be resolved. Frequently, responses to subsequent questions provide the information needed to infer the response to a question that was left blank. The 2009 Adult Coding Scheme for Quarters I-IV (see Appendix B) specifically addresses every skip pattern and shows the recoded values for variables within each pattern; we back coded and/or forward coded to ensure that all responses are consistent within a sequence.

c.   Missing Values

Synovate initially encoded any question with a missing response to a SAS missing value code of '.'. After verifying skip patterns, Mathematica recoded some of these responses to reflect valid skips (SAS missing value code of '.N'). The complete list of codes for types of missing values such as incomplete grids, and questions that should not have been answered is shown in Table 2.3.

Occasionally, missing questionnaire responses can be inferred by examining other responses. For example, if a respondent fails to answer H09025 about getting care from a doctor or other health provider besides your personal doctor, but goes on to answer how often he/her personal doctor seemed informed and up-to-date about the care received from these doctor's or providers, then we assume that the answer to H09025 should have been "yes." Using this technique, we recoded some missing questionnaire responses to legitimate responses.

d.   Logic Checks

Most logic problems are due to inconsistent skip patterns, for example, when a male answers a question intended for women only. Other internal inconsistencies were resolved in the same manner as skip pattern inconsistencies — by looking at the answers to all related questions. For instance, several questions related to smoking were examined as a group to determine the most appropriate response pattern so that any inconsistent response could be reconciled to the other responses in the group.

7.   Quality Assurance

Mathematica created an edit flag for each Coding Scheme table that indicates what, if any, edits were made in the cleaning and editing process. This logic was also used in previous years; variables such as N5 (see Appendix B) indicate exactly what pattern of the Coding Scheme was followed for a particular set of responses. These edit flags have a unique value for each set of original and recoded values, allowing us to match original values and recoded values for any particular sequence.

In order to validate the editing and cleaning process, Mathematica prepared cross-tabulations between the original variables and the recoded variables with the corresponding edit flag. This revealed any discrepancies that needed to be addressed. In addition, we compared unweighted frequencies of each variable with the frequencies from the original file to verify that each variable was accurately recoded. Mathematica reviewed these tabulations for each variable in the survey. If necessary, the earlier edit procedures were modified and the Coding Scheme program rerun. The resulting file was clean and ready for analysis.

C.   RECORD SELECTION

To select final records, we first defined a code that classifies each sampled beneficiary as to his/her final response status. To determine this response status, we used postal delivery information provided by Synovate for each sampled beneficiary. This information is contained in the FLAG_FIN variable which is described in Table 2.4

TABLE 2.4

FLAG_FIN VARIABLE FOR 2009 HCSDB

Value	Questionnaire Return Disposition	Reason/Explanation Given	Eligibility
1	Returned survey	Completed and returned	Eligible
2	Returned ineligible	Returned with at least one question marked and information that the beneficiary was ineligible	Ineligible
3	Returned blank	Information sent that beneficiary is temporarily ill or incapacitated	Eligible
4	Returned blank	Information sent that beneficiary is deceased	Ineligible
5	Returned blank	Information sent that beneficiary is incarcerated or permanently incapacitated	Ineligible
6	Returned blank	Information sent that beneficiary left military, or divorced after reference date, or retired	Eligible
7	Returned blank	Information sent that beneficiary was not eligible on reference date	Ineligible
8	Returned blank	Blank form accompanied by reason for not participating	Eligible
9	Returned blank	No reason given	----

Value	Questionnaire Return Disposition	Reason/Explanation Given	Eligibility
10	No return	Temporarily ill or incapacitated. Information came in by phone	Eligible
11	No return	Active refuser. Information came in by phone	Eligible
12	No return	Deceased. Information came in by phone	Ineligible
13	No return	Incarcerated or permanently incapacitated. Information came in by phone	Ineligible
14	No return	Left military or divorced after reference date, or retired. Information came in by phone	Eligible
15	No return	Not eligible on reference date. Information came in by phone	Ineligible
16	No return	Other eligible. Information came in by phone	Eligible
17	No return	No reason	---
18	Postal Non-Deliverables (PND)	No address remaining	---
19	PND	Address remaining at the close of field	---
20	Original Non-Locatable	No address at start of mailing	---
21	No return or returned blank	Written documentation declining participation, no reason given	Eligible
22	No return or returned blank	Hospitalized but no indication if temporary or permanent	---
23	Returned blank	Deployed	Eligible
24	No return	Deployed	Eligible
25	Deceased	Updating process identified beneficiary as deceased	Ineligible
26	Ineligible	Updating process identified beneficiary as not eligible for Military Health System plan	Ineligible

Using the above variables in Table 2.4, we classified all sampled beneficiaries into four groups:

- **Group 1**: Eligible, Questionnaire Returned. Beneficiaries who were eligible for the survey and returned a questionnaire with at least one question answered (FLAG_FIN = 1)

- **Group 2**: Eligible, Questionnaire Not Returned (or returned blank). Beneficiaries who did not complete a questionnaire but who were determined to be eligible for military health care by the reference date, that is, not deceased, not incarcerated, not permanently hospitalized (FLAG_FIN = 3, 6, 8, 10, 11, 14, 16, 21, 23, 24)

- **Group 3:** Ineligible Beneficiaries who were ineligible because of death, institutionalization, or no longer being in the MHS as of the reference date (FLAG_FIN = 2, 4, 5, 7, 12, 13, 15, 25, 26)

- **Group 4:** Eligibility Unknown. Beneficiaries who did not complete a questionnaire and for whom survey eligibility could not be determined (FLAG_FIN = 9, 17, 18, 19, 20, 22)

Group 1 was then divided into two subgroups according to the number of survey items completed (including legitimate skip responses):

- G1-1. Complete questionnaire returned

- G1-2. Incomplete questionnaire returned

G1-1 consists of eligible respondents who answered "enough" questions to be classified as having completed the questionnaire. G1-2 consists of eligible respondents who answered only a few questions. To determine if a V3 questionnaire is "complete", 27 key questions were chosen. These key questions were adapted from the complete questionnaire rule developed by AHRQ for CAHPS

V3 surveys. At least 50 percent of these key items (more than thirteen) must be answered for a questionnaire to be accepted as a complete questionnaire. The key survey variables are: H09003, H09008A, H09009A, H09010A, H09011A, H09012A, H09014A, H09015A, H09016A, H09017A, H09018A, H09019A, H09021A, H09024A, H09025A, H09027A, H09030A, H09037A, H09005, H09042A, H09044A, H09046A, H09048A, H09063, SREDA, H09071, and the race indicator.

To determine if a V4 questionnaire is "complete", 20 key questions were chosen. These key questions were adapted from the complete questionnaire rule developed by AHRQ for CAHPS V4 surveys. At least 50 percent of these key items (more than nine) must be answered for a questionnaire to be accepted as a complete questionnaire. The key survey variables are: H09003, H09005, H09006, H09009, H09013, H09018, H09019, H09027, H09028, H09031, H09033, H09039, H09042, H09047, H09050, H09051, H09063, H09071, SREDA and the race indicator.

Group 3 was then divided into two subgroups according to how ineligible beneficiaries were identified:

- G3-1. Returned ineligible (FLAG_FIN = 2, 4, 5, 7, 12, 13, 15)

- G3-2. Ineligible at time of Altarum address update (FLAG_FIN = 25, 26)

G3-1 consists of ineligible beneficiaries who responded to the survey request, but told us they were ineligible. G3-2 consists of beneficiaries identified as ineligible during the updating process.

Furthermore, we also subdivided Group 4 into the following:

- G4-1 for locatable-blank return/no reason or no return/no reason (FLAG_FIN = 9, 17, 22)

- G4-2 for nonlocatable-postal nondeliverable/no address, postal nondeliverable/had address, or original nonlocatable (FLAG_FIN = 18, 19, 20).

With this information, we can calculate the location rate (see Section 4.A).

With a code (FNSTATUS) for the final response/eligible status, we classified all sampled beneficiaries using the following values of FNSTATUS:

- 11 for G1-1

- 12 for G1-2

- 20 for Group 2

- 31 for G3-1

- 32 for G3-2

- 41 for G4-1

- 42 for G4-2

There were altogether 1209 duplicate questionnaires in the four quarterly data sets Synovate delivered. All duplicates were classified into one of the above six groups. We then retained the one questionnaire for each beneficiary that had the most "valid" information for the usual record selection process. For example, if two returned questionnaires from the same beneficiary have FNSTATUS code values of 11, 12, 20, 41, or 42, we retained the questionnaire with the smaller value. However, if one of a pair of questionnaires belongs to Group 3 (FNSTATUS = 31 or 32, i.e., ineligible), then we regarded the beneficiary as being ineligible.

Only beneficiaries with FNSTATUS = 11 were retained. All other records were dropped. In Quarters I-IV, we retained 49,475 respondents.

D.   CONSTRUCTED VARIABLES

One of the most important aspects of database development is the formation of constructed variables and scale variables to support analysis. Constructed variables are formed when no single question in the survey defines the construct of interest. In Table 2.1 there is a list of all constructed variables for 2009. Each constructed variable is discussed in this section and the relevant piece of SAS code is shown. All SAS programs can be found in Appendix F.

1.   Demographic Variables

a.   Region (XREGION)

Catchment area codes (CACSMPL) are used to classify beneficiaries into lead agent's regions. These regions corresponded to the administrative organization of TRICARE before reorganization in 2004. The XREGION variable partitions all catchment areas into non-overlapped regions so that we can report catchment-level estimates in the catchment reports. The regions are defined as follows:

1 = Northeast

2 = Mid-Atlantic

3 = Southeast

4 = Gulfsouth

5 = Heartland

6 = Southwest

7,8 = Central

9 = Southern California

10 = Golden Gate

11 = Northwest

12 = Hawaii

13 = Europe

14 = Western Pacific Command (Asia)

15 = TRICARE Latin America

16 = Alaska

  .= Unassigned (CACSMPL = 9999)

For the purposes of our analysis, Region 7 and Region 8 were combined.

```
/* XREGION –HEALTH CARE REGIONS */
IF     CACSMPL IN (0035, 0036, 0037, 0066, 0067,
           0068, 0069, 0081, 0086, 0100,
           0123, 0306, 0310, 0321, 0326,
           0330, 0385, 0413, 6201, 6223) THEN XREGION= 1;
ELSE IF CACSMPL IN (0089, 0090, 0091, 0092, 0120,
           0121, 0122, 0124, 0335, 0378, 0387, 0432,
           0433, 0508, 7143, 7286, 7294) THEN XREGION= 2;
ELSE IF CACSMPL IN (0039, 0041, 0045, 0046, 0047,
           0048, 0049, 0050, 0051, 0101,
           0103, 0104, 0105, 0337, 0356,
           0405, 0422, 0511          ) THEN XREGION= 3;
```

```
            ELSE IF CACSMPL IN (0001, 0002, 0003, 0004, 0038,
                        0042, 0043, 0073, 0074, 0107,
                        0297, 7139       ) THEN XREGION= 4;
            ELSE IF CACSMPL IN (0055, 0056, 0060, 0061, 0095,
                        9905              ) THEN XREGION= 5;
            ELSE IF CACSMPL IN (0013, 0062, 0064, 0096, 0097,
                        0098, 0109, 0110, 0112, 0113,
                        0114, 0117, 0118, 0338, 0363,
                        0364, 0365, 0366, 1587, 1592, 7236, 9906     ) THEN XREGION= 6;
            ELSE IF CACSMPL IN (0008, 0009, 0010, 0079, 0083,
                        0084, 0085, 0108, 9907      ) THEN XREGION= 7;
            ELSE IF CACSMPL IN (0031, 0032, 0033, 0053, 0057,
                        0058, 0059, 0075, 0076, 0077,
                        0078, 0093, 0094, 0106, 0119,
                        0129, 0252, 7200, 7293, 9908        ) THEN XREGION= 8;
            ELSE IF CACSMPL IN (0018, 0019, 0024, 0026, 0029, 0030,
                        0131, 0213, 0231, 0248, 0407, 5205,
                        6215, 9909  ) THEN XREGION= 9;
            ELSE IF CACSMPL IN (0014, 0015, 0028, 0235, 0250,
                        9910              ) THEN XREGION=10;
            ELSE IF CACSMPL IN (0125, 0126, 0127, 0128, 0395, 1646,
                        9911              ) THEN XREGION=11;
            ELSE IF CACSMPL IN (0052, 0280, 0287, 0534, 7043, 9912 ) THEN XREGION=12;
            ELSE IF CACSMPL IN (0606, 0607, 0609, 0617, 0618,
                        0623, 0624, 0629, 0633, 0635,
                        0653, 0805, 0806, 0808, 0814,
                        8931, 8982, 9913         ) THEN XREGION=13;
            ELSE IF CACSMPL IN (0610, 0612, 0620, 0621, 0622,
                        0637, 0638, 0639, 0640, 0802,
                        0804, 0853, 0862, 9914      ) THEN XREGION=14;
            ELSE IF CACSMPL IN (0449, 0613, 0615, 0616, 9915 ) THEN XREGION=15;
            ELSE IF CACSMPL IN (0005, 0006, 0203, 9916     ) THEN XREGION=16;
            ELSE IF CACSMPL = 9999                 THEN XREGION= .;

         IF CACSMPL IN (9901,9902,9903,9904) THEN DO;
           IF D_HEALTH NOT IN ('00','17','18','19') THEN DO;
             XREGION=INPUT(D_HEALTH,8.)+0;
           END;
           ELSE DO;
             IF  DCATCH IN ('0037', '0067', '0123', '0781', '0907',
                        '0908', '0920', '0921', '0922', '0930',
                        '0931', '0933', '0939', '0940', '0946',
                        '0995')
             THEN XREGION=1;
             ELSE IF DCATCH IN ('0124', '0934', '0996')
                THEN XREGION=2;
             ELSE IF DCATCH IN ('0039', '0048', '0105', '0911', '0941',
                        '0987')
                THEN XREGION=3;
             ELSE IF DCATCH IN ('0003', '0787', '0901', '0925', '0943',
                        '0988', '0989')
                THEN XREGION=4;
             ELSE IF DCATCH IN ('0055', '0056', '0061', '0782', '0783',
                        '0789', '0914', '0915', '0918', '0923',
                        '0936', '0950')
```

```
            THEN XREGION=5;
        ELSE IF DCATCH IN ('0113', '0904', '0937', '0990', '0993')
            THEN XREGION=6;
        ELSE IF DCATCH IN ('0785', '0929', '0932')
            THEN XREGION=7;
        ELSE IF DCATCH IN ('0078', '0784', '0788', '0906', '0917',
                    '0924', '0927', '0928', '0935', '0942',
                    '0945', '0951', '0974')
            THEN XREGION=8;
        ELSE IF DCATCH IN ('0029', '0786', '0986')
            THEN XREGION=9;
        ELSE IF DCATCH IN ('0014', '0985')
            THEN XREGION=10;
        ELSE IF DCATCH IN ('0125', '0938', '0948', '0973')
            THEN XREGION=11;
        ELSE IF DCATCH IN ('0912')
            THEN XREGION=12;
        ELSE IF DCATCH IN ('0957', '0958', '0960', '0964', '0966',
                    '0967', '0976', '0977', '0979',
                    '0982')
            THEN XREGION=13;
        ELSE IF DCATCH IN ('0006', '0052', '0640', '0961', '0963',
                    '0965', '0978', '0983')
            THEN XREGION=14;
        ELSE IF DCATCH IN ('0075', '0120', '0615', '0622','0953',
                    '0970', '0971', '0972', '0975')
            THEN XREGION=15;
        ELSE IF DCATCH IN ('0902')
            THEN XREGION=16;
      END;
    END;


    IF D_PAR = '0902' THEN XREGION=16;
    IF XREGION = 0 THEN XREGION = .;
```

b.   United States (USA)

XREGION is used to classify beneficiaries either in the United States or overseas

USA stands for United States including both Alaska and Hawaii.

```
    IF    XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN USA=1;
    ELSE IF XREGION IN (13,14,15)              THEN USA=0;
    ELSE IF XREGION = .                  THEN USA=.;
```

c.   Overseas (XOCONUS)

XREGION is used to classify beneficiaries who are overseas as follows:

```
     1=Europe
     2=Western Pacific
     3=Latin America
     .=In Conus/Missing Region
```

```
    IF    XREGION=13 THEN XOCONUS=1;
```

```
      ELSE IF XREGION=14 THEN XOCONUS=2;
      ELSE IF XREGION=15 THEN XOCONUS=3;
```

d.   TRICARE Next Generation of Contracts Region (XTNEXREG)

XREGION is used to create XTNEXREG. XTNEXREG is the TRICARE Next Generation of Contracts Region grouping.

1=North
2=South
3=West
4=Overseas

```
IF XREGION IN (1,2,5) THEN XTNEXREG=1;                        /* North */
ELSE IF XREGION IN (3,4,6) THEN XTNEXREG=2;                   /* South */
ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG=3; /* West */
ELSE IF XREGION IN (13,14,15) THEN XTNEXREG=4;           /* Overseas */
```

e.   Out of Catchment Area (OUTCATCH)

CACSMPL is used to classify beneficiaries either in a catchment area or outside a catchment area.

```
/* OUTCATCH – OUT OF CATCHMENT AREA */
IF 9900 < CACSMPL < 9999 THEN OUTCATCH=1;    /* Out of catchment area */
  ELSE IF CACSMPL = 9999 THEN OUTCATCH=.;
  ELSE OUTCATCH=0;                      /* Catchment area       */
```

f.   Catchment (XCATCH)

XCATCH is an MTF catchment area for annual beneficiary reports. The catchment is defined as follows:

```
  LENGTH XCATCH 8;
  com_geo = geocell;
  if pcm = 'MTF' then do;
%INCLUDE ."..\..\..\Q4_2009\Programs\Sampling\AssignCOM_GEO.inc"
    else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
      ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
      ('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' ) or enrid = '0000' or
      ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919') or
      ('3031' <= enrid <= '3057') or
      enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208', '0250',
                '0449', '0626', '0012') or
      ('0190' <= enrid <='0199') then com_geo = geocell;
    else com_geo = d_par;
  end;
  else if patcat='ACTDTY' then com_geo=d_par;

  if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR" then do;
    if d_health in ('01','02','05','17') then com_geo = '9901';
    else if d_health in ('03','04','06','18') then com_geo = '9902';
    else if d_health in ('07','08','09','10','11','12','19') then com_geo = '9903';
    else if d_health in ('00','13','14','15') then com_geo = '9904';
  end;
  *********************************************************************************.
  ***d_fac="TPR" and d_health = '17', '18', '19' were added above for Q4, 2004,  ***;
  ***since we got the new regions 17(North T_NEX),18(South T_NEX),19(West T_NEX).***;
  *********************************************************************************.
```

*** If the facility is unknown then set com_geo indicates unknown facility ***;
*** '0999' added 03/15 to account for id 6992;
if com_geo in ('9900', '0999', '0998',' ') then com_geo = '9904';

**.
      ;
***Made the following 9 Navy sites stand alone in q1,2005:   ***;
'0026','0068','0231','0378','0387','0405','0407','0508','6215';
**.
      ;
if geocell in ('0026','0068','0231','0378','0387','0405','0407','0508','6215') then com_geo=geocell;

xcatch = INPUT(com_geo,8.);
label xcatch = "XCATCH – Catchment Area (Reporting)";

g.   Gender of Beneficiary (XSEXA)

XSEXA is constructed using self reported sex, gender identified on the DEERS database, and answers to gender specific questions.

1=Male
2=Female

```
/** Note 19 - gender H09056, SEX, H09057--H09062,
        XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


  ARRAY fmaleval H09057 H09058 H09059 H09060 H09061 H09062
            ;

  cntfmale=0;
  DO OVER fmaleval;        /* mammogram/pap smear/PREGNANT*/
    IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;

  IF cntfmale>0 THEN FMALE=1;
  ELSE FMALE = 0;


  IF H09056=. THEN DO;
    IF (SEX='F' AND FMALE) THEN DO;
      N19a=1;
      XSEXA=2;
    END;
    ELSE IF (SEX='F' AND FMALE=0) THEN DO;
      N19a=2;
      XSEXA=2;
    END;
    ELSE IF (SEX='M' AND FMALE) THEN DO;
      N19a=3;
      XSEXA=1;
    END;
```

```
                         ELSE IF (SEX='M' AND FMALE=0) THEN DO;
                           N19a=4;
                           XSEXA=1;
                         END;
                         ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
                           N19a=5;
                           XSEXA=2;
                         END;
                         ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
                           N19a=6;
                           XSEXA=.;
                         END;
                         ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
                           N19a=7;
                           XSEXA=.;
                         END;
                       END;
                       ELSE IF (H09056=1) THEN DO;
                         IF FMALE=0 THEN DO;
                           N19a=8;
                           XSEXA=1;
                         END;
                         ELSE IF FMALE THEN DO;
                           IF SEX='F' THEN DO;
                             N19a=9;
                             XSEXA=2;
                           END;
                           ELSE DO;
                             N19a=10;
                             XSEXA=1;
                           END;
                         END;
                       END;
                       ELSE IF (H09056=2) THEN DO;
                         IF FMALE THEN DO;
                          N19a=11;
                          XSEXA=2;
                         END;
                         ELSE IF FMALE=0 THEN DO;
                          IF SEX='M' THEN DO;
                            N19a=12;
                            XSEXA=1;
                          END;
                          ELSE DO;
                            N19a=13;
                            XSEXA=2;
                          END;
                         END;
                       END;
                     END;
```

h.   Beneficiary Group (XBNFGRP)

We redefined beneficiary groups to exclude any active duty personnel and any active duty family members who are age 65 or older. The variable XBNFGRP reconstructs beneficiary groups into the following values:

1 = Active Duty, under 65
2 = Family members of active duty, under 65
3 = Retirees, survivors, and family members, under 65
4 = Retirees, survivors, and family members, 65 or over
 .= Unknown/other

/* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty and Family Members
of Active Duty */
IF FIELDAGE >= 65 AND ENBGSMPL IN (1, 2, 3, 4) THEN XBNFGRP = .;
   ELSE IF ENBGSMPL = 1 THEN XBNFGRP = 1;
   ELSE IF ENBGSMPL IN (2, 3, 4) THEN XBNFGRP = 2;
   ELSE IF ENBGSMPL IN (5, 6, 7) THEN XBNFGRP = 3;
   ELSE IF ENBGSMPL IN (8, 9, 10) THEN XBNFGRP = 4;
   ELSE IF ENBGSMPL IN (11)   THEN XBNFGRP = .;

i.   Service Affiliation (XSERVAFF)

We redefined service affiliation to collapse coast guard, administrative, support contractor, USTF,
noncatchment, other, not available, missing/unknown service affiliations into a single category. The
variable XSERVAFF reconstructs service affiliation into the following values:
1 = Army
2 = Air Force
3 = Navy
4 = Other

IF SERVAFF='A' THEN XSERVAFF=1; *Army;
IF SERVAFF='F' THEN XSERVAFF=2; *Air Force;
IF SERVAFF='N' THEN XSERVAFF=3; *Navy;

 /***Coast Guard, Administrative, Support Contractor, USTF, Noncatchment,
     Other, Not available, Missing/unknown
 *** will collapse to other per Eric Shone ***/

 IF SERVAFF IN ('C' 'J' 'M' 'T' 'S' 'O' 'X' ' ') THEN XSERVAFF=4; *Other;

2.   TRICARE Prime Enrollment and Insurance Coverage

a.   TRICARE Prime Enrollment Status (XENRLLMT)

For reporting purposes, a person is considered enrolled in TRICARE Prime if they are under 65
and the poststratification enrollment type (ENBGSMPL), based on DEERS data, indicates that they
were enrolled at the time of data collection. Because it is important to view the experiences of
active duty personnel separately from other enrollees, there is a separate category for active duty
(under 65) — they are automatically enrolled in Prime. The five categories for TRICARE Prime
enrollment are as follows:

1 = Active duty, under 65
2 = Other enrollees, under 65
3 = Not enrolled in TRICARE Prime, under 65
4 = Not enrolled in TRICARE Prime, 65 or over
5 = Enrolled in TRICARE Prime, 65 or over
. = Unknown

 /* XENRLLMT—ENROLLMENT STATUS */

```
      IF 18 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
        IF INPUT(ENBGSMPL,8.) = 1 THEN XENRLLMT = 1;               /*  Active duty (<65) */
        ELSE  IF  INPUT(ENBGSMPL,8.) IN (2, 3, 5, 6) THEN XENRLLMT = 2;   /*   Non-active duty
      enrolled (<65)*/
        ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENRLLMT = 3;     /*   Not Enrolled (<65)*/
      END;
      ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN DO;
        IF INPUT(ENBGSMPL,8.) = 10 THEN XENRLLMT = 4;                 /*  Not Enrolled (65+)*/
        IF INPUT(ENBGSMPL,8.) IN (8,9) THEN XENRLLMT = 5;            /*  Enrolled (65+)   */
      END;
```

b.   TRICARE Prime Enrollment Status by Primary Care Manager (XENR_PCM)

This variable, similar to the previous variable XENRLLMT, separates the enrollees other than the active duty category into those with a military primary care manager (PCM) and those with a civilian PCM. Active duty personnel are automatically enrolled and always have a military PCM. XENR_PCM has seven possible values:

1 = Active duty, under 65, military PCM
2 = Other enrollees, under 65, military PCM
3 = Other enrollees, under 65, civilian PCM
4 = Not enrolled in TRICARE Prime, under 65
5 = Not enrolled in TRICARE Prime, 65 or over
6 = Enrolled in TRICARE Prime, 65 or over, military PCM
7 = Enrolled in TRICARE Prime, 65 or over, civilian PCM
 . = Unknown

```
/* XENR_PCM—ENROLLMENT BY PCM TYPE */
IF 18 <= FIELDAGE < 65 THEN DO;
  IF ENBGSMPL = 1 THEN XENR_PCM = 1;             /*  Active duty (<65)        */
  ELSE IF ENBGSMPL IN (3, 6) THEN XENR_PCM = 2;    /*  Enrolled (<65) - mil PCM */
  ELSE IF ENBGSMPL IN (2, 5) THEN XENR_PCM = 3;    /*  Enrolled (<65) - civ PCM */
  ELSE IF ENBGSMPL IN (4, 7,11) THEN XENR_PCM = 4;  /*  Not Enrolled (<65)       */
END;
 ELSE IF FIELDAGE > = 65 THEN DO;
  IF ENBGSMPL = 10 THEN XENR_PCM = 5;        /*  Not Enrolled (65+)       */
  IF ENBGSMPL = 9 THEN XENR_PCM = 6;         /*  Enrolled (65+)-mil PCM   */
  IF ENBGSMPL = 8 THEN XENR_PCM = 7;         /*  Enrolled (65+)-civ PCM   */ /*NJ_Q2*/
 END;
END;
```

c.   Most–Used Health Plan (XINS_COV)

The respondent's most–used health plan comes directly from variable H09003 (unless the respondent is active duty) and the respondent's age. All active duty personnel are automatically enrolled in Prime. The eight categories for this variable are as follows:
1 = Active duty, under 65
2 = Other TRICARE Prime enrollees, under 65
3 = TRICARE Standard/Extra (CHAMPUS)
4 = Medicare Part A and/or Part B
5 = Other civilian health insurance or civilian HMO
6 = Prime, 65 or over
7 = TRICARE Plus and Medicare
8 = Veterans Administration (VA)
9 = TRICARE Reserve Select
 . = Unknown

```
/* XINS_COV--INSURANCE COVERAGE */
IF XENRLLMT = 1 THEN XINS_COV =1;                              /* Prime <65-Active Duty */
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H09003 IN (1) THEN XINS_COV = 2; /* Prime
<65-Non-active Duty */
  ELSE IF H09003 = 3 THEN XINS_COV = 3;                       /* Standard/Extra */
  ELSE IF H09003 = 11 THEN XINS_COV = 7;                      /* Plus and Medicare */
  ELSE IF H09003 = 4 THEN XINS_COV = 4;                  /* Medicare*/
  ELSE IF H09003 IN (5,6, 7, 8, 9, 13) THEN XINS_COV = 5;     /* Other civilian health insurance*/
  ELSE IF H09003 = 10 THEN XINS_COV = 8;                      /* Veterans Administration (VA) */
  ELSE IF H09003 = 12 THEN XINS_COV = 9;                   /* TRICARE Reserve Select */
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H09003 = 1) THEN XINS_COV
= 6;   /* Prime, >= 65 */
  ELSE IF H09072=1 AND H09073=1 AND H09003 NE .N THEN XINS_COV = 4;   /* NEW Q2
Medicare/Medicaid */
```

d.   Insurance coverage distinguishing reservists from Active Duty (XINS_RSV)

This variable is similar to XINS_COV but separates reservists from other active duty.
XINS_RSV has 10 possible values:

    1 = Prime <65-Active Duty (Non reservists)
    2 = Prime <65-Non-active Duty
    3 = Standard/Extra
    4 = Medicare/Medicaid
    5 = Other civilian health insurance
    6 = Prime, >= 65
    7 = Plus and Medicare
    8 = Veterans Administration (VA)
    9 = TRICARE Reserve Select
   10 = Prime <65-Active Duty (Reservists)
    . = Unknown

```
/* XINS_RSV--INSURANCE COVERAGE DISTINGUISHING RESERVISTS FROM ACTIVE
DUTY*/
 IF XENRLLMT = 1 THEN DO;
   IF XBENCAT IN (1) THEN XINS_RSV =1;             /* Prime <65-Active Duty (Non reservists) */
    ELSE IF XBENCAT IN (3,5) THEN XINS_RSV=10;  /* Prime <65-Active Duty (Reservists) */
 END;
 ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H09003 IN (1) THEN XINS_RSV = 2; /* Prime
<65-Non-active Duty */
  ELSE IF H09003 =3 THEN XINS_RSV = 3;                     /* Standard/Extra */
  ELSE IF H09003 = 11 THEN XINS_RSV = 7;               /* Plus and Medicare */
  ELSE IF H09003 = 4 THEN XINS_RSV = 4;               /* Medicare*/
  ELSE IF H09003 IN (5,6, 7, 8, 9, 13) THEN XINS_RSV = 5;    /* Other civilian health insurance*/
  ELSE IF H09003 = 10 THEN XINS_RSV = 8;                     /* Veterans Administration (VA) */
  ELSE IF H09003 = 12 THEN XINS_RSV = 9;                  /* TRICARE Reserve Select */
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H09003 = 1) THEN XINS_RSV
= 6;  /* Prime, >= 65 */
  ELSE IF H09072=1 AND H09073=1 AND H09003 NE .N THEN XINS_RSV = 4;          /*
Medicare/Medicaid */
```

e.   Enrollment distinguishing reservists from Active Duty (XENR_RSV)

This variable is similar to XENR_PCM but separates reservists from other active duty.
XINS_RSV has 8 possible values:

```
                1 = Active duty (<65) Non reservists
                2 = Enrolled (<65) - mil PCM
                3 = Enrolled (<65) - civ PCM
                4 = Not Enrolled (<65)
                5 = Not Enrolled (65+)
                6 = Enrolled (65+)-mil PCM
                7 = Enrolled (65+)-civ PCM
                8 = Active duty (<65) Reservists
                . = Unknown

        /* XENR_RSV--ENROLLMENT DISTINGUISHING RESERVISTS FROM ACTIVE DUTY */
        IF 18 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
          IF INPUT(ENBGSMPL,8.) = 1 THEN DO;
            IF XBENCAT IN (1) THEN XENR_RSV = 1;           /*  Active duty (<65) Non reservists */
            ELSE IF XBENCAT IN (3,5) THEN XENR_RSV = 8;        /*  Active duty (<65) Reservists */
          END;
          ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_RSV = 2;      /*  Enrolled (<65) - mil
        PCM */
          ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_RSV = 3;      /*  Enrolled (<65) - civ
        PCM */
          ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_RSV = 4;   /*  Not Enrolled (<65)
        */
        END;
        ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
            IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_RSV = 5;         /*  Not Enrolled (65+)     */
            IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_RSV = 6;          /*  Enrolled (65+)-mil PCM   */
            IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_RSV = 7;          /*  Enrolled (65+)-civ PCM   */
        END;
```

f.   Types of Coverage (KCIVINS)

A binary variable was created to indicate the type of insurance that respondents use:

▪   Is the respondent covered by civilian insurance (KCIVINS)

This variables has the following values:
1 = Yes
2 = No
.= Unknown

```
IF H09002G=1 OR H09002I=1 OR H09002J=1 THEN KCIVINS=1;        /* YES */
ELSE KCIVINS=2;                                              /* NO  */
```

3.   Access to Care
(KMILOFFC, KCIVOFFC, KBGPRB1, KBGPRB2)

These variables were applicable to the V3 questionnaire. Some of the survey questions on access relate to a TRICARE performance standard. For these questions, we constructed binary variables, separately for beneficiaries using military and civilian facilities, to approximate the TRICARE standard. Table 2.5 presents those standards that were analyzed in the reports. The new variables have the following values:

1 = Standard was met
2 = Standard was not met
. = Missing response

TABLE 2.5

TRICARE STANDARDS FOR ACCESS

Access Measure	TRICARE Standard	Variable Name	Relevant Question
Waiting Room Wait	Within 15 minutes	KMILOFFC, KCIVOFFC	H09030A

```
/* KMILOFFC—OFFICE WAIT OF MORE THAN 15 MINUTES AT MILITARY FACILITES
   KCIVOFFC—OFFICE WAIT OF MORE THAN 15 MINUTES AT CIVILIAN FACILITES */
IF H09005 = 1 THEN DO;                    /* Military */
  IF H09030A IN (1,2) THEN KMILOFFC = 1;          /* Yes */
  ELSE IF H09030A IN (3,4) THEN KMILOFFC = 2;       /* No */
END;
  ELSE IF H09005 IN (2, 3, 4) THEN DO;         /* Civilian */
    IF H09030A IN (1,2) THEN KCIVOFFC = 1;         /* Yes */
    ELSE IF H09030A IN (3,4) THEN KCIVOFFC = 2;     /* No */
  END;
```

H09013A asks how much of a problem, if any, it was to get a referral to a specialist. The responses to this question are regrouped by a binary variable KBGPRB1. KBGPRB1 looks at these two categories:
1 = Those who reported a "big problem"
2 = Those who reported not a "big problem"
. = Missing response

```
/* KBGPRB1—BIG PROBLEM GETTING REFERRALS TO SPECIALISTS */
    IF H09013A = 1 THEN KBGPRB1 = 1;                 /* YES */

  ELSE IF H09013A IN (2,3) THEN KBGPRB1 = 2;          /* NO */
```

Similarly, variable KBGPRB2 was constructed. H09027A asks about how much of a problem, if any, it was to get the care you or a doctor believed necessary. The responses to this question are regrouped by a binary variable KBGPRB2. KBGPRB2 looks at these two categories:

1 = Those who reported a "big problem"
2 = Those who reported not a "big problem"
. = Missing response

```
/* KBGPRB2—BIG PROBLEM GETTING NECESSARY CARE */
IF H09027A = 1 THEN KBGPRB2 = 1;                 /* YES */
  ELSE IF H09027A IN (2,3) THEN KBGPRB2 = 2;         /* NO */
```

4. **Preventive Care**
    (HP_PRNTL, HP_MAMOG, HP_MAM50, HP_PAP, HP_BP, HP_FLU, HP_SMOKE,
    HP_SMOKH, HP_SMKH2, HP_CESH, HP_CESH2, HP_OBESE, XBMI, XBMICAT)

As in some of the access analyses, preventive care analyses incorporated either a TRICARE standard or a federal Healthy People 2010 objective. We constructed new binary variables from the responses to indicate whether the respondent received the preventive care service within the recommended time period. See Table 2.6 for the list of the variables developed for analysis of preventive care; these variables will be compared to the TRICARE standard or Healthy People 2010 Goal. New versions of variables identifying smoking and smoking cessation counseling were added because of changes to the questionnaire. The new variables have the following values:

1 = Received service within the recommended time period

2 = Did not receive service within the recommended time period
.= Missing information

TABLE 2.6

PREVENTIVE CARE STANDARDS

Preventive Care Delivered	Relevant Question	Variable Name	Received Service In Recommended Time Period (Numerator)	Population Involved (Denominator)	Standard
Blood Pressure Check	H09048 & H09049	HP_BP	Number with care in the past 24 months and know the results	Adults	95% within past 2 years
Flu Shot	H09050	HP_FLU	Number with care in the past 12 months	Adults age 65 and older	90% in past year, age 65 and over
Pap Smear	H09057	HP_PAP	Number with care in the past 36 months	Adult females	90% in the past 36 months
Mammography	H09059	HP_MAMOG	Number with care in the past 24 months	Females age 40 and over	70% in the past 24 months
Mammography	H09059	HP_MAM50	Number with care in the past 24 months	Females age 50 and over	70% in the past 24 months
Smoker	H09053	HP_SMOKE	Number that smoked in the past 12 months	Adults	12% in the last 12 months
Smoker – V3	H09051, H09052 & H09054A	HP_SMOKH	Number that smoked in the past 12 months	Adults	12% in the last 12 months
Smoker – V4	H09051 & H09052	HP_SMKH2	Number that smoked in the past 12 months	Adults	12% in the last 12 months
Smoking Cessation – V3	H09051, H09052, H09054A, & H09053	HP_CESH	Number that smoked in the past 12 months	All current adult smokers and those who quit smoking within the past year	None
Smoking Cessation – V4	H09051, H09052, & H09053	HP_CESH2	Number that smoked in the past 12 months	All current adult smokers and those who quit smoking within the past year	None
Prenatal Care	H09062	HP_PRNTL	Number with care in the first trimester	Currently pregnant adult females and all adult females who were pregnant in the past 12 months, excluding those less than 3 months pregnant who haven't received care	90% had care in first trimester
Non-Obese Weight	H09069F, H09069I & H09070	HP_OBESE	Number of people who are not obese	Adults	85% are not obese

```
/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER
*/
IF H09060 IN (1,2) THEN DO;                        /*  Pregnant in last 12 months  */
    IF H09062 = 4 THEN HP_PRNTL = 1;               /*  Yes  */
    ELSE IF (H09061 = 1 AND H09062 = 1) THEN HP_PRNTL = .;
    /* <3 months pregnant now */
    ELSE IF H09062 IN (1,2,3) THEN HP_PRNTL = 2;  /*  No */
END;
```

```
/* HP_MAMOG--FOR WOMEN AGE 40 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS
*/
IF XSEXA = 2 AND INPUT(FIELDAGE,8.) >= 40 THEN DO;
  IF H09059 IN (5, 4) THEN HP_MAMOG = 1;        /* Yes */
  ELSE IF H09059 IN (1, 2, 3) THEN HP_MAMOG = 2;   /* No */
END;

/* HP_MAM50--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS
*/
IF XSEXA = 2 AND INPUT(FIELDAGE,8.) >= 50 THEN DO;
  IF H09059 IN (5, 4) THEN HP_MAM50 = 1;        /* Yes */
  ELSE IF H09059 IN (1, 2, 3) THEN HP_MAM50 = 2;   /* No */
END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
IF XSEXA = 2 THEN DO;
  IF H09057 IN (4, 5) THEN HP_PAP = 1;          /* Yes */
  ELSE IF H09057 IN (1, 2, 3) THEN HP_PAP = 2;      /* No  */
END;

IF H09048 IN (2,3) AND H09049 IN (1,2) THEN HP_BP = 1;  /* Yes    */
  ELSE IF H09048 = 1 THEN HP_BP = 2;              /* No      */
  ELSE IF H09048 < 0 OR H09049 < 0 THEN HP_BP = .;     /* Unknown */
  ELSE HP_BP = 2;                          /* No      */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
IF INPUT(FIELDAGE,8.) >= 65 THEN DO;
  IF H09050 = 4 THEN HP_FLU = 1;            /*  Yes */
  ELSE IF H09050 IN (1, 2, 3) THEN HP_FLU = 2;     /*  No  */
END;

/* HP_SMOKE--ADVISED TO QUIT SMOKING IN PAST 12 MONTHS */
IF H09053 IN (2, 3, 4, 5) THEN HP_SMOKE = 1;      /*  Yes  */
  ELSE IF H09053 = 1 THEN HP_SMOKE = 2;          /*  No   */

/* 1/16/09 Changed HP_SMOKH to HP_SMKH2 and HP_CESH to HP_CESH2 to account for  */
/* HYY054 variable not appearing in V4 questionnaire.                 */
IF H09051 IN (1,2) THEN DO;
  IF H09051=1 AND (H09052=3 OR H09052=4 ) THEN HP_SMKH2=1;            /* Yes */
  ELSE IF H09051=2 OR H09052 > 0 THEN HP_SMKH2=2;                 /* No  */
END;

if hp_smkh2=1 & H09053>0 then do;
  if H09053>1 then hp_cesh2=1;  /* Yes */
  else hp_cesh2=2;          /* No */
end;

IF H09051 IN (1,2) THEN DO;
  IF H09051=1 AND (H09052=3 OR H09052=4 OR (H09052=2 AND H09054A=3)) THEN
HP_SMOKH=1;     /* Yes */
  ELSE IF H09051=2 OR H09052 > 0 THEN HP_SMOKH=2;                 /* No  */
END;

if hp_smokh=1 & H09053>0 then do;
  if H09053>1 then hp_cesh=1;  /* Yes */
  else hp_cesh=2;          /* No */
end;
```

```
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
* Calculate XBMI- Body Mass Index and XBMICAT- Body Mass Index Category
* BMI=Weight(in pounds)*703 divide by Height(in inch)*Height(in inch)
*********************************************************************************,


 IF H09069F IN (.A,.O,.I,.B) THEN TSRHGTF=.; ELSE TSRHGTF=H09069F;
 IF H09069I IN (.A,.O,.I,.B) THEN TSRHGTI=.; ELSE TSRHGTI=H09069I;
 IF H09070  IN (.A,.O,.I,.B) THEN TSRWGT =.; ELSE TSRWGT =H09070;

 IF TSRHGTF IN (.) OR
   TSRWGT  IN (.) THEN XBMI=.;
 ELSE DO;
   XBMI = ROUND((TSRWGT*703)/
          (SUM(TSRHGTF*12,TSRHGTI)*SUM(TSRHGTF*12,TSRHGTI)), .1);
 END;

IF XBMI >= 100 THEN XBMI=.;


 DROP TSRHGTF TSRHGTI TSRWGT;

   IF XBMI = .       THEN XBMICAT=.;
   ELSE IF XBMI < 18.5 THEN XBMICAT=1;  *Underweight;
   ELSE IF XBMI < 25   THEN XBMICAT=2;  *Normal Weight;
   ELSE IF XBMI < 30   THEN XBMICAT=3;  *Overweight;
   ELSE IF XBMI < 40   THEN XBMICAT=4;  *Obese;
   ELSE              XBMICAT=5;  *Morbidly Obese;


 /*ADD HP_OBESE VARIABLE. JMA 11/3/2005*/

 IF XBMICAT=. THEN HP_OBESE=.;
 ELSE IF XBMICAT IN (4,5) THEN HP_OBESE=1;   *OBESE ;
 ELSE HP_OBESE=2;                  *NOT OBESE;
```

5.   Utilization

a.   Outpatient Utilization (KMILOPQY, KCIVOPQY)

H09013 contains the total outpatient visits. This is called KMILOPQY for those receiving care at military facilities; we adjust KMILOPQY to reflect zero visits for those with no care or those who get their care from civilian facilities. KCIVOPQY is the comparable variable for those who receive care at civilian facilities.

```
/* KMILOPQY--OUTPATIENT VISITS TO MILITARY FACILITY
   KCIVOPQY--OUTPATIENT VISITS TO CIVILIAN FACILITY */
IF H09005 = 1 THEN DO;
  KMILOPQY=H09013;
  KCIVOPQY=1;
END;
ELSE IF H09005 IN  (2, 3, 4) THEN DO;
  KCIVOPQY=H09013;
  KMILOPQY=1;
END;
```

```
ELSE IF H09005 = 5 THEN DO;
  KMILOPQY=1;
  KCIVOPQY=1;
END;
```

E.   WEIGHTING PROCEDURES

Quarterly and annual estimates based on the 2009 HCSDB must account for the survey's complex sample design and adjust for possible bias due to nonresponse. As part of sample selection, Mathematica constructed sampling weights (BWT) that reflect the differential selection probabilities used to sample beneficiaries across strata. With the level of nonresponse experienced in the HCSDB and the likelihood that respondents and nonrespondents will differ in terms of their responses to survey questions, the issue of nonresponse bias is potentially a serious one. In previous surveys prior to 2005 we compensated for potential nonresponse bias by adjusting for nonresponse independently within weighting classes defined by the stratification variables— enrollment status, beneficiary group, and geographic area. In other words, it was assumed that both response propensity and characteristics related to survey outcome variables were homogeneous within these weighting classes.

However, because the HCSDB sample is selected from the DEERS, a great deal is known about both respondents and nonrespondents. Consequently, a wide choice of variables is available for use as auxiliary variables in the nonresponse weighting adjustments. As described above, in previous surveys, the only auxiliary variables used in developing the nonresponse weighting adjustments were the stratification variables, a small subset of the available variables.

Therefore, beginning with the 2005 HCSDB we developed a new weighting adjustment procedure to incorporate more information about respondents and nonrespondents. The first stage in this process identified variables from the frame that were most related to whether or not a beneficiary responded to the survey. After initial screening of variables, the Chi-squared Automatic Interaction Detection (CHAID) (Biggs et al. 1991) technique was used for this purpose. Second, we incorporated the chosen auxiliary variables into a weighting class adjustment procedure using a response propensity model.

In addition, for 2009, two versions of the questionnaire were fielded. For that reason, three versions of weights were calculated: one for version 3 questionnaire, one for version 4, and one for combined data.

1.   Constructing the Sampling Weight

The sampling weight was constructed on the basis of the sample design. In the 2009 HCSDB, stratified sampling was used to select the samples that would receive the questionnaire. Sampling was independently executed within strata defined by combinations of three domains: enrollment status groups; beneficiary groups; and geographic areas.

The sample was selected with differential probabilities of selection across strata. Sample sizes were driven by predetermined precision requirements. For further details of the 2009 adult sample design, see "Health Care Survey of DoD Beneficiaries: 2009 Adult Sampling Report (2008)." Our first step in constructing sampling weights was to ensure that they reflected these unequal sampling rates. These sampling weights can be viewed as the number of population elements each sampled beneficiary represents. The sampling weight was defined as the inverse of the beneficiary's selection probability:

$$W_s(h,i) = \frac{N_h}{n_h}$$

where:

$W_s(h,i)$ is the sampling weight for the ith sampled beneficiary in stratum h,

N_h is the total number of beneficiaries in stratum h, and

n_h is the number of sampled beneficiaries in stratum h.

The sum of the sampling weights over selections i, from stratum h equals the total population size of stratum h or N_h.

2. Adjustment for Total Nonresponse

Survey estimates obtained from respondent data only can be biased with respect to describing characteristics of the total population (Lessler and Kalsbeek 1992). The choice of an appropriate method for adjusting for potential nonresponse bias depends on the response mechanism that underlies the study population. We adjusted for nonresponse independently within classes, with the assumptions that both response and characteristics directly or indirectly related to survey variables are homogeneous within these classes. Two types of nonresponse were associated with the 2009 HCSDB:

- Unit or total nonresponse occurred when a sampled beneficiary did not respond to the survey questionnaire (e.g., refusals, no questionnaire returned, blank questionnaire returned, bad address).

- Item nonresponse occurred when a question that should have been answered was not answered (e.g., refusal to answer, no response).

Because item response rates in previous surveys were high, statistical imputation, a technique used to compensate for item nonresponse, was not used in the 2009 HCSDB. To account for unit or total nonresponse, we implemented a weighting class adjustment procedure where the weighting classes are formed from a response propensity model.

3. Weighting Class Adjustments

Weighting class adjustments were made by partitioning the sample into groups, called weighting classes, and then adjusting the weights of respondents within each class so that they sum to the weight total for nonrespondents and respondents from that class. Implicit in the weighting class adjustment is the assumption that—had the nonrespondents responded—their responses would have been distributed in the same way as the responses of the other respondents in their weighting class.

The 2009 HCSDB weighting was implemented by using a method that was instituted in 2005. This new method forms the weighting classes using the propensity scores from the propensity model.

Nonresponse adjustment factors for the 2009 HCSDB were calculated in two steps. First, we adjusted the sampling weights to account for sampled beneficiaries for whom eligibility status could not be determined. Sampled beneficiaries were then grouped as follows according to their response status d:

$d = 1$ Eligible — complete questionnaire returned (FNSTATUS = 11)

$d = 2$ Eligible — incomplete or no questionnaire returned (FNSTATUS = 12 or 20)

$d = 3$ Ineligible — deceased, incarcerated or permanently incapacitated beneficiary (FNSTATUS = 31)

$d = 4$ Eligibility unknown — no questionnaire or eligibility data (FNSTATUS = 41 or 42)

$d = 5$ Ineligible — ineligible at time of Altarum address update (FNSTATUS = 32)

Within weighting class c, the weights of the $d = 4$ nonrespondents with unknown eligibility were redistributed to the cases for which eligibility was known ($d = 1, 2, 3$), using an adjustment factor $A_{wc1}(c,d)$ that was defined to be zero for $d = 4$, one for $d = 5$, and defined as:

$$A_{wc1}(c,d) = \frac{\sum_{i \in S(c)} W_s(c,i)}{\sum_{i \in S(c)} I_1(i)W_s(c,i) + \sum_{i \in S(c)} I_2(i)W_s(c,i) + \sum_{i \in S(c)} I_3(i)W_s(c,i)} \text{ for d = 1, 2, 3}$$

where:

$A_{wc1}(c,d)$ is the eligibility-status adjustment factor for weighting class c and response status code d,

$I_d(i)$ is the indicator function that has a value of 1 if sampled unit i has a response status code of d and value of 0 otherwise,

$S(c)$ is the set of sample members belonging to weighting class c, and

$W_s(c,i)$ is the sampling weight (BWT) for the ith sample beneficiary from weighting class c before adjustment.

The adjustment $A_{wc1}(c,d)$ was then applied to the sampling weights to obtain the eligibility-status adjusted weight. Beneficiaries in weighting class c with response status code of d were assigned the eligibility-status adjusted weight:

$$W_{wc1}(c,d,i) = A_{wc1}(c,d)\ W_s(c,i) \text{ for } d = 1, 2, 3, 4, 5$$

Note that since $d = 5$ cases have an adjustment factor of one, they have an adjusted weight equal to the sampling weight. Moreover, note that since $d = 4$ cases have adjustment factors of zero; they also have adjusted weights of zero.

The next step in weighting was to adjust for incomplete or missing questionnaires from beneficiaries known to be eligible. For this adjustment, the weighting class method is again used. Within weighting class c the sample was again partitioned into groups according to the beneficiary's response status code d. Within weighting class c, the weights of the $d = 2$ nonresponding eligibles were redistributed to the responding eligibles $d = 1$, using an adjustment factor $A_{wc2}(c,d)$ that was defined to be zero for $d = 2, 4$. For Group 1 ($d = 1$), the questionnaire-completion adjustment or $A_{wc2}(c, 1)$ factor for class c was computed as:

$$A_{wc2}(c,1) = \frac{\sum_{i\in S(c)} I_1(i)W_{wc1}(c,i) + \sum_{i\in S(c)} I_2(i)W_{wc1}(c,i)}{\sum_{i\in S(c)} I_1(i)W_{wc1}(c,i)}$$

By definition, all $d = 3$ and $d = 5$ ineligible beneficiaries "respond," so the $d = 3$ and $d = 5$ adjustment factor is 1, or $A_{wc2}(c,3) = A_{wc2}(c,5) = 1$. The questionnaire-completion adjusted weight was calculated as the product of the questionnaire-completion adjustment $A_{wc2}(c,d)$ and the previous eligibility-status adjusted weight $W_{wc1}(c,d,i)$, or:

$$W_{wc2}(c,d,i) = A_2(c,d)W_{wc1}(c,d,i)$$

As a result of this step, all nonrespondents ($d = 2, 4$) had questionnaire-completion adjusted weights of zero, while the weight for ineligible cases ($d = 3, 5$) remained unchanged, or $W_{wc2}(c,3,i) = W_{wc1}(c,3,i)$ and $W_{wc2}(c,5,i) = W_{wc1}(c,5,i)$.

4. Response Propensity Model

It is common practice to use weighting adjustments to compensate for unit nonresponse in sample surveys. There are numerous methods developed to make these adjustments (Kalton and Maligalig 1991; Holt and Smith 1979; Oh and Scheuren 1983; Little and Vartivarian 2003; Vartivarian and Little 2003). Moreover, a number of studies have evaluated multiple weighting methods to adjust for nonresponse. Carlson and Williams (2001) found nearly identical results with respect to the design effects and the weighted estimates for two weighting approaches: 1) weighting classes using the design features (strata and sampling units), and 2) propensity models containing numerous variables identified as predictors of response. They conjectured that the propensity model approach might perform better for estimates in key geographic subdomains because there would be many fewer weighting cells than for the national estimates. Rizzo et al. (1994) investigated several alternative methods for panel nonresponse in the Survey of Income and Program Participation (SIPP), including nonresponse adjustment cells, logistic regression, CHAID methods, and generalized raking methods. They found a number of variables related to panel nonresponse that are not employed in the standard SIPP nonresponse adjustment cells methodology. These variables were used in the alternative weighting methods and were found to result in similar weights regardless of method. Therefore, Rizzo et al conclude that the choice of model variables is more important than the weighting methodology.

a. Predictors of Response Propensity

The first step in developing nonresponse adjustments is deciding which of the large number of variables available from the HCSDB sample frame would be best to use in the adjustment procedures. We do this by evaluating each variable and its relationship to response. Segmentation analysis using the CHAID software was used to allow for a model-building process that focuses on segments showing different response propensities.[1] This analysis avoids the problem of examining "all possible interactions" that is typical of regression modeling. The unweighted segmentation algorithm split the sample into subgroups based on response rates. The splitting process continued until either no other predictors were found or the segment size fell below a minimum size of 50. For ease of interpretation, we also limited the splitting process to three levels.

---

[1] Using as a criterion the significance of a chi-squared test, CHAID evaluates all of the values of a potential predictor variable. It merges values that are judged to be statistically homogeneous (similar) with respect to response and maintains all other values that are heterogeneous (dissimilar). It then selects the best predictor variable to form the first branch in the decision tree, such that each node is made of a group of homogeneous values of response. This process continues recursively until the tree is fully grown.

We ran the CHAID analysis twice, once to predict eligibility determination and again to predict survey completion among eligible beneficiaries

b.   Response Propensity Weighting Classes

The nonresponse adjustments involved developing weighting classes using sample design characteristics and the response propensity model developed in the modeling stage. The usual HCSDB approach computes the response weight adjustment cells based on fully observed variables from the sample frame. However, in order to avoid empty or sparsely populated cells, we limited our classification to the stratification variables, catchment area, enrollment, and beneficiary group, and collapsed these cells as necessary.

The alternative approach we used to reduce the number of cells was to stratify based on response propensity. The method used a model of the relationship between a set of beneficiary characteristics and a response outcome. We used logistic regression to model this relationship because response outcome is dichotomous: beneficiaries either respond or they do not. If the characteristics in the model predict response well and if the characteristics are correlated with the substantive variables of the survey, then the model-based adjustment factors applied to the sampling weights greatly reduce the potential for nonresponse bias. Like the previous weighting class adjustment method, we make two separate weighting adjustments to attempt to compensate for nonresponse: an eligibility determination adjustment and a completion adjustment.

The overall probability of having a known eligibility status is estimated with a logistic regression model. The probability that sample beneficiary *i* has a known eligibility status is:

$$\hat{\lambda}_i = P\left[E_i = 1 \mid X_i \hat{\beta} \right]$$
$$= \left[1 + \exp\left(-X_i \hat{\beta} \right) \right]^{-1}$$

where

$$E_i = \begin{cases} 1 \text{ if sample beneficiary } i \text{ has eligibility status determined} \\ 0 \text{ otherwise} \end{cases}$$

and X_i is a vector of HCSDB response predictors (main effects and interaction terms) and $\hat{\beta}$ are the estimated regression coefficients.

To determine the best set of response predictors we fit models using unweighted stepwise, backward, and forward logistic regression procedures in SAS. We developed a model for Continental U.S. (CONUS) and Outside of Continental U.S. (OCONUS) separately and included as response predictors an indicator variable for each TNEX region. Besides TNEX region, an indicator of whether a beneficiary is in a catchment area or not was added in the model. In the full model, we included all nine variables (TNEX region, age, beneficiary group, PCM, personnel category, rank, sex, service, and an indicator for being in a catchment area) and interactions identified by the CHAID analysis as response predictors. We re-ran the three resulting unweighted models using weights and the sample design characteristics in SUDAAN. We estimated the coefficients using a weighted logistic regression procedure in SUDAAN, which incorporates the stratified design in estimating standard errors for the coefficients. We selected the model with the best Hosmer and Lemeshow (H-L) goodness-of-fit test from both SAS and SUDAAN since all models have similar concordance-discordance rates.

For each eligibility determination model, we ordered the list of response propensity scores and then divided them into groups of equal size. Ten weighting classes were formed from the deciles of the propensity score for CONUS. For OCONUS we formed five classes using the quintiles of the propensity scores.

For the completion adjustment stage, we formed the weighting classes using the results from the CHAID trees; the number of weighting classes was determined by the number of the terminal nodes in the CHAID trees. Because we observed little variation in the questionnaire-completion adjustment stage, the modeling was not necessary, and instead the weighting classes were formed directly from the CHAID trees.

In addition, we poststratified the nonresponse-adjusted weights to the frame totals to obtain specific domain weighted totals equal to population totals. The poststrata were defined by stratification variables—TNEX region, catchment area, and enrollment status, and were collapsed to form poststrata of sufficient size. Due to the possibly insufficient sample size constraint within each TNEX region, we stratified by catchment area only for those enrolled with military primary care manager. The poststratification adjustment factor for the hth poststratum is defined as:

$$A_h^{PS} = \frac{N_h}{\sum_{i \in h} W_i^{C}}$$

where W_i^{C} is the nonresponse-adjusted weights, and N_h is the total number of beneficiaries in the DEERS frame associated with the hth poststratum. We calculated the poststratified adjusted weight for the ith sample record from the hth poststratum by the following:

$$W_{hi}^{PS} = A_h^{PS} \times W_i^{C}$$

Therefore, when summed over all respondents in poststratum h, the poststratified weights now total N_h.

Lastly, we evaluated the weights and trimmed some extreme weights to reduce excessive effect of extreme weights to variance inflation. Whenever some weights were trimmed, we re-post stratified the weights to produce the final survey weights.

c.   **Three Sets of Quarterly Weights in Q1 and Q2 2009**

In Q1 and Q2 of FY2009, the sample was equally split in order to test two versions of questionnaires. Half of the sample was administered CAHPS 3.0 questionnaire and the other half was administered CAHPS 4.0 questionnaire. Since across the two versions of the questionnaire there are some common items and some unique items, we produced three sets of quarterly analysis weights:

▪   the first set of weights (FWRWT) was constructed for all 51,000 beneficiaries and were designed to be used when analyzing the common items

▪   the second set of weights (FWRWT_V3) was constructed for the 25,500 beneficiaries who were administered the CAHPS 3.0 questionnaires and were designed to be used when analyzing items unique to CAHPS 3.0

▪   the third set of weights (FWRWT_V4) was constructed for the 25,500 beneficiaries who were administered the CAHPS 4.0 questionnaires and were designed to be used when analyzing items unique to CAHPS 4.0.

Assuming that the response propensity is independent to the version of questionnaires, the propensity modeling and the nonresponse adjustments for unknown eligibility cases and for

noncompleters were carried out similar to those in previous survey rounds or in quarters Q3 and Q4 2009; that is based on all 51,000 cases. However, the Q1 and Q2 2009 poststratification adjustments were done separately for these 3 sets of weights.

In Q3 and Q4 of FY2009, each of the quarterly samples were only administered the CAHPS 4.0 questionnaire, and therefore it was only necessary to construct one set of quarterly weights for these quarters.

5. Calculation of Combined Annual Weights

a. Calculation of Combined Annual Weights Prior to 2009

Lastly, we constructed a dataset combining the four consecutive quarterly data files. Because there were a total of 1,937 late respondents who were not included in the Quarters I–III 2009 files, the first three quarters were re-weighted before they were merged into the combined annual dataset. The new Quarters I–III datasets contain the responses of respondents who "trickled" in past the deadline for the survey. After reweighting the Quarters I–III datasets, the Quarters I–III datasets and the Quarter IV dataset were merged to form a combined annual dataset with data for all four quarters.

Because the combined annual dataset sample sizes are sufficiently large to provide statistically reliable estimates, users will be able to calculate survey estimates for subdomains, such as catchment areas. Construction of an appropriate annual weight will allow users to consider the combined data as the data from a single survey. Quarterly weights are still included so that users may continue to calculate quarterly estimates and retain the ability to combine any sequential four quarters into a combined data set.

The method used for combining the four quarters of data and calculating combined estimates assumes that the variance in estimates from one quarter to the next is merely due to sampling variation. That is, combined estimates can be calculated from the four independent samples by averaging the estimates for the four quarters. These combined estimates will, in fact, be more precise than the quarterly estimates because they average out the variation across quarters (For a further discussion, see Friedman, et al. 2002).

We calculated the final survey weight for each quarter within the combined dataset. Without the loss of generality, let us denote the current quarter by Q4. Then, the combined dataset would include the four quarterly datasets: Q1, Q2, Q3, and Q4. Let us denote quarterly final survey weights by WQ1, WQ2, WQ3, and WQ4. To retain the sum of the weights from the combined data as the population count, we average the population over the four quarters, by rescaling each quarterly survey weight as follows in order to develop a combined annual weight:

(1) $$WCOM = q_i \times WQi$$

where q_i is between 0 and 1 with the constraint $q_1 + q_2 + q_3 + q_4 = 1$. We can make the choice of the appropriate value for each of the q_i's based on various assumptions. We have decided that each quarterly contribution to the annual weight should be equal and therefore the value of each q_i is as follows:

$$q_1 = 0.25; \; q_2 = 0.25; \; q_3 = 0.25; \; q_4 = 0.25$$

Then, the weight for the combined annual data will be *WCOM* in (1).

The final data file retains the quarterly sampling stratum variables and quarterly weight as calculated using the response propensity (FWRWT) and the combined weights (CFWT). The file

also contains an indicator variable for the quarters. From this combined dataset, one can calculate both combined data and revised quarterly estimates.

b.   **Calculation of Combined Annual Weights in 2009**

With three sets of quarterly analysis weights being constructed each for Quarter I and Quarter II and one set of quarterly analysis weights each for Quarter III and Quarter IV, there was a need to create a corresponding set of three sets of annual analysis weights, and three sets of annual replicate weights.

Since the CAPHS 3.0 questionnaire was administered only in Quarter I and Quarter II 2009, for analyzing items unique to the CAPHS 3.0 questionnaire, an annual weight (CFWT_V3) was constructed by averaging the two 2009 quarterly weights: Quarter I and Quarter II CAPHS 3.0 weights (FWRWT_V3).

For analyzing items unique to CAPHS 4.0 questionnaire, an annual weight (CFWT_V4) was constructed by averaging the four 2009 quarterly weights: Quarter I, Quarter II CAPHS 4.0 weights (FWRWT_V4), and Quarter III, and Quarter IV weights (FWRWT).

For analyzing items common across both the CAPHS 3.0 and 4.0 questionnaires, an annual weight (CFWT) was constructed by averaging the full sample weights (FWRWT) across the four quarters in 2009.

The final data file retains the quarterly sampling stratum variables, and three sets of quarterly weights (FWRWT_V3, FWRWT_V4, FWRWT) and three sets of the combined annual weights (CFWT_V3, CFWT_V4, CFWT).

6.   **Calculation of Quarterly Jackknife Replicate Weights**

a.   **Calculation of Quarterly Jackknife Replicate Weights Prior to 2009**

Calculation of variance estimates in the HCSDB requires a design-based variance estimation technique that is available in most statistical software packages for analysis from a complex survey data, such as WesVarPC® (Brick et al. 1996), SUDAAN®, SAS/STAT® version 8 or higher, and STATA®. This technique requires sample design information, including the sampling weight and stratification information. As an alternative, a replication technique such as the Jackknife method can be used to calculate variance estimates. In the HCSDB, a series of jackknife replicate weights are calculated and attached to each beneficiary record in the database. In jackknife replication, deleting selected cases from the full sample generates the prescribed number of replicates. The HCSDB replicate weights were constructed as follows.

First, the entire file of sampled beneficiaries is sorted in sample selection order in which the stratification variables are used in the sorting process. Next, 60 mutually exclusive and exhaustive systematic subsamples of the full sample are identified in the sorted file. A jackknife replicate is then obtained by dropping one subsample from the full sample. As each subsample is dropped in turn, consequently 60 sets of jackknife replicates are produced. The weighting process after the modeling as applied to the full sample is then applied separately to each of the jackknife replicates to produce a set of replicate weights for each record. The propensity score modeling was skipped. Instead the weighting cells from the propensity scores from the full sample weight were adopted in the replicate weights construction. Then, a series of jackknife replicate weights (FWRWT1-FWRWT60) is attached to the final data in order to construct jackknife replication variance estimates. These replicate weights should be used to estimate variances of quarterly estimates.

b.   Calculation of Quarterly Jackknife Replicate Weights in FY2009

In Quarter I and Quarter II of FY2009, since there are three sets of quarterly analysis weights produced (for analyses with CAPHS 3.0, CAPHS 4.0, or common items), correspondingly there are three sets of jackknife replicate weights produced. First, jackknife replicate subsamples of the full sample of 51,000 were constructed as usual described above. The weighting process after the modeling through the nonresponse adjustment as applied to the full sample is then applied separately to each of the jackknife replicates. Then, at the poststratification step the full sample was poststratified to produce replicate weights FWRWT1 – FWRWT60 for the analyses using the full sample with the common items in CAPHS 3.0 and 4.0. Each of the half samples was poststratified to represent the whole population to produce the replicate weights FWTV3_1 - FWTV3_60 for analyses using half sample with unique items in CAPHS 3.0; and to produce the replicate weights FWTV4_1 – FWTV4_60 for analyses using half sample with unique items in CAPHS 4.0.

In Quarter III and Quarter IV of 2009, since only the CAPHS 4.0 questionnaire was administered, for each quarter one set of 60 replicate weights (FWRWT1 – FWRWT60) were constructed as described above.

7.   Calculation of Annual Jackknife Replicates

a.   Calculation of Annual Jackknife Replicates Prior to 2009

Since 60 quarterly replicate weights are available in each quarter, 240 annual replicate weights were constructed as follows:

Figure 1: Construction of Annual replicate weights based on the quarterly replicate weights

1 – Q1 Replicate Weights
2 – Q2 Replicate Weights
3 – Q3 Replicate Weights
4 – Q4 Replicate Weights
5 – Q1 Final weights
6 – Q2 Final weights
7 – Q3 Final weights
8 – Q4 Final weights

Each quarterly replicate weight was put into the data set as a form of block diagonal (1, 2, 3, 4), and the quarterly final weights were put into the dataset for off-diagonal (5, 6, 7, 8). This construction was based on the assumption that each quarterly sample was independent. The use

of the quarterly final weights as the replicate weights for off-diagonal units in the dataset does not introduce variability into the variance. In fact, the replicate estimates from the off-diagonal are equal to the full sample estimate, because the replicate weights on the off-diagonal are same as the quarterly final weight. Thus, the values of variance factor $(\hat{\theta}_{hi} - \hat{\theta})^2$, i.e., the difference between the estimates calculated from the replicate *r* and that calculated on the basis of full sample, is zero for replicates with off-diagonal units only.

The general formula for the jackknife variance estimator in SUDAAN (RTI 2002) can be expressed as:

$$v_{Jack}\left(\hat{\theta}\right) = \sum_h \frac{N_h - D_h}{D_h R_h} \sum_i \left(\hat{\theta}_{hi} - \hat{\theta}\right)^2$$

where

N_h is the number of PSUs or clusters within the stratum *h*,

D_h is the number of PSUs or clusters deleted in creating the replicate,

R_h is the number of replicates selected,

$\hat{\theta}_{hi}$ is the estimate of the parameter θ from the *i*-th replicate of the *h*-th stratum,

$\hat{\theta}$ is the estimate based on the entire sample.

b.   Calculation of Annual Jackknife Replicates in FY2009

In FY2009, three sets of annual replicate weights were constructed. For the analysis of the unique items in CAPHS 3.0, 120 replicate weights (CFWV3_1 - CFWV3_120) were constructed using the half sample administered with CAPHS 3.0 from Q1 and Q2. For the analysis of the unique items in CAPHS 4.0, 240 replicate weights (CFWV4_1 - CFWV4_240) were constructed using the half sample administered with CAPHS 4.0 from Q1 and Q2, and the full sample administered with CAPHS 4.0 from Q3 and Q4. For the analysis of the common items in CAPHS 3.0 and 4.0, 240 replicate weights (CFW1 – CFW240) were constructed using the whole full sample from Q1-Q4.

All three sets of the annual replicate weights follow the same algorithm as shown in Figure 1 above. For the detailed information of construction, please refer to the Appendix L.

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Chapter

3

Analysis

This chapter explains how the HCSDB variables were processed during the analysis phase of the project. It covers the procedure for calculating response rates, developing dependent and independent variables for the analysis and estimating the variance of the statistics. The "Health Care Survey of DoD Beneficiaries: Annual Report" is described briefly along with an outline of the steps involved in creating charts for the reports.

A. RESPONSE RATES

In this section, we present the procedures for response rate calculations along with a brief analysis of response rates for domains of interest. Beginning in 2006, response rates for the 2009 HCSDB were calculated in the same way. The procedure is based on the guidelines established by the Council of American Survey Research Organizations (CASRO 1982) for defining a response rate.

1. Definition of Response Rates

In calculating response rates and related measures, we considered two different rates: *unweighted* and *weighted*. The unweighted version of the response rate represents the counted proportion of respondents among all sampled units, and the weighted version indicates the estimated proportion of respondents among all population units. When sampling rates across all strata are equal, these two approaches give the same result. However, the 2009 HCSDB used different sampling rates across strata. So, it is useful to show both "unweighted" and "weighted" response rates. We calculated these two response rates in the same way. As presented in Chapter 2, all sampled beneficiaries were completely classified into these four main (seven detailed) groups:

- Group 1 (G1-1): eligible and complete questionnaire returned;

- Group 1 (G1-2): eligible and incomplete questionnaire returned;

- Group 2: eligible and questionnaire not returned;

- Group 3 (G3-1): returned ineligible

- Group 3 (G3-2): ineligible at time of Altarum address update

- Group 4 (G4-1): eligibility unknown and locatable; and

- Group 4 (G4-2): eligibility unknown and unlocatable.

The unweighted counts reflect the number of sampled cases (n_i for Group i, where i =1,2,3,4), and the weighted counts reflect the estimated population size[2] ($\hat{N}_i$ for Group i, where i =1,2,3,4) for the four main response categories.

These weighted and unweighted counts were also calculated for the subgroups G1-1, G1-2, G3-1, G4-1, and G4-2, where we denote the unweighted counts by $n_{1,1}$, $n_{1,2}$, $n_{3,1}$, $n_{4,1}$, and $n_{4,2}$, and the

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[2] The weighted sum of sampled units can be regarded as an estimated population size. The base weight (BWT) was used in calculating weighted counts, where BWT is the inverse of selection probability.

weighted counts by $\hat{N}_{1,1}, \hat{N}_{1,2}, \hat{N}_{3,1}, \hat{N}_{4,1},$ and $\hat{N}_{4,2}$. With these values, we calculated response rates as follows.

Response rates can be partitioned into two measures: the location rate and the completion rate. To calculate the location rate, we first estimated the number of Group 4 "located" beneficiaries who were expected to be eligible for the survey:

(1)

$$l = \left(\frac{n_1 + n_2}{n_1 + n_2 + n_{3,1}}\right) n_{4,1} \qquad \text{and} \qquad l_w = \left(\frac{\hat{N}_1 + \hat{N}_2}{\hat{N}_1 + \hat{N}_2 + \hat{N}_{3,1}}\right) \hat{N}_{4,1}$$

where l and l_w are unweighted and weighted estimates of the number of "located" beneficiaries among Group 4. Then, the unweighted and weighted "location rates" are defined by:

(2)

$$LR = \frac{n_1 + n_2 + l}{n_1 + n_2 + n_4\left(\dfrac{n_1 + n_2}{n_1 + n_2 + n_{3,1}}\right)} \qquad \text{and} \qquad LR_w = \frac{\hat{N}_1 + \hat{N}_2 + l_w}{\hat{N}_1 + \hat{N}_2 + \hat{N}_4\left(\dfrac{\hat{N}_1 + \hat{N}_2}{\hat{N}_1 + \hat{N}_2 + \hat{N}_{3,1}}\right)}.$$

And the corresponding unweighted and weighted "completion rates" are defined by:

(3)

$$CR = \frac{n_{1,1}}{n_1 + n_2 + l} \qquad \text{and} \qquad CR_w = \frac{\hat{N}_{1,1}}{\hat{N}_1 + \hat{N}_2 + l_w}.$$

The final response rates in Equation (4) can be obtained by multiplying the location rate in Equation (2) by the completion rate in Equation (3).

(4)

$$FRR = LR \times CR \text{ and } FRR_w = LR_w \times CR_w$$

In the definitions in Equations (1) through (4), the subscript "w" indicates that all calculations involve weighted counts. The method used to calculate response rates is consistent with the CASRO guidelines.

2. Reporting

We examined response rates to identify patterns across different domains or characteristics. While analysts prefer weighted rates that reflect the estimated proportion of respondents among all population beneficiaries, operational staff often is interested in getting unweighted measures. All tables include unweighted and weighted values under columns headed "RR" and "RR$_w$", respectively. In the following, we focus on discussing unweighted response rates for domains of interest.

Table 3.1 includes overall response rates for the 2009 HCSDB for Quarters I-IV, individual and combined. It also contains response rates by beneficiary groups, and by enrollment status:

- Overall: The overall unweighted response rate for the combined 2009 Adult HCSDB was 25.2 percent (which is found in Table 3.1 in the row of "Overall"). This rate is higher than 21.8 percent rate achieved in the combined 2008 Adult HCSDB.

- Beneficiary group and enrollment status: All response rates calculated by beneficiary group and enrollment status show similar patterns to the 2008 survey, i.e., active duty beneficiaries had the lowest response rates and beneficiaries 65 years and older had the highest rate.[3]

- The response rates for the first three quarters include late respondents (respondents whose survey "trickled-in" after the deadline).

TABLE 3.1

RESPONSE RATES OVERALL AND BY ENROLLEE BENEFICIARY GROUP: QUARTERS I-IV, 2009

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR (%)	RR$_W$ (%)	RR (%)	RR$_W$ (%)	RR (%)	RR$_W$ (%)	RR (%)	RR$_W$ (%)	RR (%)	RR$_W$ (%)
Overall	26.9	44.1	26.1	43.6	24.6	42.9	23.1	40.6	25.2	42.8
Active Duty	22.1	19.9	21.0	38.6	19.1	16.8	17.2	15.3	19.8	17.6
Active Duty fam,Prime,civ PCM	24.3	23.6	22.9	22.5	22.6	21.4	19.7	19.1	22.2	21.6
Active Duty fam,Prime,mil PCM	22.8	22.0	21.8	21.2	20.2	20.2	20.1	19.0	21.2	20.6
Active Duty fam,non-enrollee	15.3	16.6	14.4	15.1	15.8	16.7	14.0	15.7	14.9	16.0
Retired,<65,civ PCM	80.3	80.8	85.8	85.9	79.6	80.1	74.0	74.2	80.0	80.3
Retired,<65,mil PCM	75.0	74.9	73.6	73.6	75.7	75.8	70.5	70.5	73.7	73.7
Retired,<65,non-enrollee	50.2	50.2	48.9	49.4	47.3	49.8	46.2	48.1	48.1	49.4
Retired,65+,enrollee	48.6	48.7	49.7	50.5	45.0	44.7	45.3	46.4	47.2	47.6
Retired,65+,non-enrollee	41.4	43.8	41.2	43.9	40.7	43.7	39.4	42.1	40.7	43.4
TRICARE Reserve Select	34.0	34.0	38.9	38.9	30.0	30.0	31.1	31.1	33.5	33.2

RR = Weighted
RR$_w$ = Unweighted
Note: There was no TRICARE Reserve Select in the Q2 frame at the time of the sampling.

For domains of special interest, Appendix D contains tables showing unweighted and weighted response rates for Quarters I-IV, 2009. We summarize unweighted results about response rates for selected domains as follows:

- Regions: Combined response rates across regions range from 19.7 percent for Overseas to 26.4 percent for West (Table D.10).

- Sex: Combined response rate for men is 24.0 percent as compared to 26.8 percent for women. (Table D.4).

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[3] However, response patterns vary considerably across beneficiary and enrollment groups. The relatively low level of response for active duty persons and their family members could be due to frequent relocations and our inability to receive new addresses in a timely manner.

- USA: Combined response rate for USA is 26.2 percent as compared to 19.7 percent for not in USA. (Table D.5).

- Catchment areas: Combined response rates across catchment areas range from 13.0 percent for Ft. Drum to 38.6 percent for Tricare Outpat-Chula Vista. (Table D.7).

- Beneficiary groups by sex: Women respond at a higher rate than men for both active duty and active duty family members, 22.7 percent versus 19.4 percent and 19.8 percent versus 11.6 percent, respectively. The opposite pattern emerges for retirees, survivors and family members 65 and older. The response rates for retirees less than 65 are 46.2 for men vs 43.3 for women. (Table D.12).

- Beneficiary group by service affiliation (Army, Navy, Air Force, Marine Corps, Coast Guard): Among service affiliations, the smallest combined response rate comes from active duty in the Marine Corps with 12.1 percent and the largest from beneficiaries over 65 from other/unknown with 80.0 percent (Table D.13).

B.   VARIANCE ESTIMATION

Due to the complex sample design, variance estimation for the 2009 HCSDB is not simple, and may be most easily achieved using one of two methods. The first, the Taylor series linearization via SUDAAN (Shah et al. 1996) or SAS/STAT version 8 or higher, is a direct variance estimation method, which may be used to calculate the standard errors (the square root of the variance) of estimates. For the 2009 HCSDB analyses, we used the Taylor series linearization method. For analysts who prefer a replication method of variance estimation, replicate weights for jackknife replication are provided in the public use file. This section details the two approaches to calculating variance estimates of the characteristics of interest associated with the 2009 HCSDB.

1.   Taylor Series Linearization

Mathematica uses Taylor series linearization to produce standard errors for the estimates from the 2009 HCSDB. For most sample designs, including the 2009 HCSDB, design-based variance estimates for linear estimators of totals and means can be obtained with explicit formulas. Estimators for nonlinear parameters, such as ratios, do not have exact expressions for the variance. The Taylor series linearization method approximates the variance of a nonlinear estimator with the variances of the linear terms from the Taylor series expansion for the estimator (Woodruff 1971). To calculate variance estimates based on the Taylor series linearization method, given HCSDB's stratified sampling design, we need to identify stratum as well as the final analysis weight for each data record. We included these variables on the final database. For variance estimation, we use the general-purpose statistical software package SUDAAN to produce Taylor series variance estimates. SUDAAN is the most widely used of the publicly available software packages based on the Taylor series linearization method. In SUDAAN, the user specifies the sample design and includes the stratum variables and the analysis weight for each record. Unlike WesVarPC, SUDAAN allows for unlimited strata, so stratification effects can be incorporated in calculating standard errors.

2.   Jackknife Replication

Resampling methods are often used in estimating the variance for surveys with complex designs. In resampling, the sample is treated as if it was a population, and many smaller samples are drawn from the original sample (Lohr 1999, pages 298-308). The subsamples are then used to compute the variance. Replication methods have been recommended for surveys in which the sample design is complex, nonresponse adjustments are needed, and statistics of interest are

complicated. In such surveys, the usual design-based estimation formula is extremely difficult or impossible to develop (see, for example, Wolter 1985, pages 317-318). Jackknife replicate weights can be used to calculate the standard errors of estimates. An estimate of a characteristic of interest is calculated (with the same formula as the full sample estimate) using each set of replicate weights; these replicate estimates are used to derive the variance of the full sample statistic.

The jackknife variance of the full sample statistic of interest is estimated from the variability among the replicated estimates. When the replicate weights are produced according to the above procedure, jackknife replicate standard errors can be produced using custom written software or publicly available statistical software. For instance, WesVarPC® (Brick et al. 1996) is a popular software package that calculates standard errors based on replication methods. It produces standard errors for functions of survey estimates such as differences and ratios as well as simple estimates such as means, proportions, and totals. Additional details about the jackknife replication approach are given in Wolter (1985). Like other replication methods, the jackknife variance estimation can be easily implemented for any form of estimate without further algebraic work.

C.   SIGNIFICANCE TESTS

In certain charts in the adult report cards and the "Health Care Survey of DoD Beneficiaries: Annual Report", statistical testing is done to show which columns of the chart (values of the independent variable) are statistically different from all CONUS regions as a whole. Positional arrows show if a region is statistically better than the CONUS regions (an arrow pointing up) or statistically worse than the CONUS regions (an arrow pointing down); if there is no arrow, there is no statistical difference.

The null hypothesis for this significance test is that the mean for the column is essentially equal with the CONUS mean, and the alternative is that the mean for the column is different from the CONUS mean. That is, we are testing:

$$H_0: \mu_1 = \mu_2 \quad \text{vs.} \quad H_a: \mu_1 \neq \mu_2$$

For instance, μ_1 might represent the characteristic of interest for the active duty group while μ_2 might represent the same characteristic for all CONUS regions.

With large sample sizes, the estimator $\overline{y}_1 - \overline{y}_2$ is approximately distributed as a normal distribution with mean zero and variance $\sigma^2_{\overline{y}_1 - \overline{y}_2}$ under the null hypothesis. In testing the hypothesis, a test statistic T is thus calculated as:

$$T = \frac{\overline{y}_1 - \overline{y}_2}{\hat{\sigma}_{\overline{y}_1 - \overline{y}_2}}.$$

With $\alpha = 0.05$, the null hypothesis should be rejected if $|T| > 1.96$. The denominator of T, the standard error of $\overline{y}_1 - \overline{y}_2$, can be calculated as the square root of the variance estimator $\hat{\sigma}^2_{\overline{y}_1 - \overline{y}_2}$:

$$\hat{\sigma}^2_{\overline{y}_1 - \overline{y}_2} = \text{var}(\overline{y}_1) + \text{var}(\overline{y}_2) - 2\text{cov}(\overline{y}_1, \overline{y}_2).$$

If $\overline{y}_1$ and $\overline{y}_2$ are independent, then the covariance term equals zero and thus the variance estimator can be easily obtained as the sum of two individual variance estimators. However, there are some cases in which the condition of independence does not hold. For example, active duty

MTF group is not independent with the CONUS regions because these two domains share active duty group within the CONUS regions. So the covariance term should be incorporated in calculating the variance estimator of the estimator of the difference. With suitable algebra and program modification, these covariance terms were calculated for all such cases. All detailed programs are included in Appendix G.

D.   DEMOGRAPHIC ADJUSTMENTS

All scores in the TRICARE Beneficiary Reports are adjusted for patient characteristics affecting their scores. Scores can be adjusted for a wide range of socioeconomic and demographic variables.

The purpose of risk adjustment is to make comparisons of outcomes, either internally or to external benchmarks, that control for characteristics beyond the health care provider's control. Based on previous work with satisfaction scales derived from Consumer Assessment of Healthcare Providers and Systems (CAHPS) Health Plan Survey, it appears that satisfaction increases with age and decreases with poor health across social classes and insurance types. Besides, controlling for these factors, the methodology used does the following:

- Permits risk-adjusted comparisons among regions and catchment areas within and across beneficiary and enrollment groups

- Permits testing the hypothesis that the difference in risk-adjusted scores between a region or catchment area and a benchmark is due to chance

- Is appropriate for CAHPS composites and global satisfaction ratings.

The methodology used is an adaptation of that found in CAHPS 2.0 Survey and Reporting Kit (DHHS, 1999).

The model used for this adjustment is:

$$Y_{ijkl} = \beta_{1l}A_{1l} + \beta_{2l}A_{2l} + ... + \beta_{5l}A_{5l} + \beta_{6l}P_l + \varepsilon_{ijkl},$$

where Y_{ijkl} is a dependent variable, β_{ql}'s are parameters to be estimated, A_{ql}'s are age dummy variables ($A_{ql} = 1$ if the beneficiary is in age group q, and 0 otherwise; A_l = age 18-24, A_2 = age 25-34, A_3 = age 35-44, A_4 = age 45-54, A_5 = age 55-64), P_l is health status. The subscripts *i, j, k and l* refer to the service/region, MTF, beneficiary, and beneficiary's enrollment group, respectively.

Given 24 region and service combinations and *J*+1 catchment areas, the specifications that we use are:

$$\varepsilon_{ijkl} = \delta_{0l} + \delta_{1l}R_{1l} + \delta_{2l}R_{2l} + ... + \delta_{24l}R_{24l} + w_{ijkl},$$

where R_i's are service/region dummy variables ($R_{il} = 1$ if the beneficiary is in service/region *i* and beneficiary group *l*, and 0 otherwise), and

$$\varepsilon_{ijkl} = \gamma_{0l} + \gamma_{1l}H_{1l} + \gamma_{2l}H_{2l} + ... + \gamma_{Jl}H_{Jl} + w_{ijkl},$$

where H_{ij}'s are catchment area dummy variables ($H_{jl} = 1$ if the beneficiary is in catchment area *j* and beneficiary group *l*, and 0 otherwise). The first specification is used when catchment area values are not reported, and the second when catchment areas are reported.

The methods for calculating demographically adjusted values and testing hypotheses of differences in demographically adjusted scores among geographic areas vary with the way ε_{ijkl} is defined. For specification 1, the adjusted mean of the dependent variable *Y* for region *i* can be obtained as:

$$\overline{y_i} = \hat{\delta}_0 + \hat{\delta}_i + \hat{\beta}_1 \hat{A}_1 + \hat{\beta}_2 \hat{A}_2 + ... + \hat{\beta}_5 \hat{A}_5 + \hat{\beta}_6 \hat{P},$$

where $\hat{\beta}_i$'s are estimated model parameters, $\hat{A}_i$'s are weighted proportions of age group *i* among the total U.S. population, and $\hat{P}$ is the weighted MHS mean of the variable *P*. For beneficiary group *l*, the adjusted regional value is:

$$\overline{y_{il}} = \hat{\delta}_{0l} + \hat{\delta}_{il} + \hat{\beta}_{1l} \hat{A} + \hat{\beta}_{2l} \hat{A}_{2l} + ... + \hat{\beta}_{5l} \hat{A}_{5l} + \hat{\beta}_{6l} \hat{P}_l,$$

where $\hat{A}_{ql}$'s are weighted proportions of age group *q* in the MHS.

For specification 2, an adjusted catchment area value can be calculated as:

$$\overline{y_{ijl}} = \hat{\gamma}_{0l} + \hat{\gamma}_{ijl} + \hat{\beta}_{1l} \hat{A}_{1l} + \hat{\beta}_{2l} \hat{A}_{2l} + ... + \hat{\beta}_{5l} \hat{A}_{5l} + \hat{\beta}_{6l} \hat{P}_l,$$

while the regional value is calculated using specification 1.

Standard errors then can be estimated as the standard error of residuals for catchment areas or regions using SUDAAN. These standard errors can be used in hypothesis tests comparing adjusted values to other adjusted values or to external benchmarks. Composite values are calculated as averages of regional or catchment area adjusted values for questions making up the composites, in which each question is equally weighted.

Benchmarks can also be adjusted for age and health status as are scores taken from survey responses. If the benchmark data set contains age and health status information, we fit a model of the form

$$y = \alpha + \beta_1 A_1 + \beta_2 A_2 + ... + \beta_5 A_5 + \beta_6 P$$

where the A's are age groups and P is health status. Then the adjusted benchmark is

$$\hat{y}_l = \hat{\alpha} + \hat{\beta}_1 \overline{A}_{1l} + \hat{\beta}_2 \overline{A}_{2l} + ... + \hat{\beta}_5 \overline{A}_{5l} + \hat{\beta}_6 \overline{P}_l$$

using the mean values of A and P for beneficiary group l.

The adjusted values for that beneficiary group can then be compared to a benchmark appropriate for their age distribution and health status.

In some cases, it may be desirable for a single benchmark to be presented in comparison to many beneficiary groups. We accomplish this by recentering scores for beneficiary groups. In the Beneficiary Reports, described below, the benchmark presented is the all-users beneficiary group, but scores for many other beneficiary groups are also presented. Each score and benchmark is calculated for the appropriate beneficiary group. Then a recentering factor for each beneficiary group is calculated as the difference in adjusted benchmarks between a beneficiary group and the all-users group. For the all-users group, that recentering factor is zero. The recentering factor is

added to the score for each region or catchment area for that beneficiary group. Thus beneficiary groups can also be compared controlling for age and health status and can be compared to the same benchmark.

E.   CALCULATING SCORES

Beneficiary Reports (see below) include four types of scores: CAHPS composites, ratings, a preventive care composite, and a healthy behaviors composite.

1.   Composites and Ratings

The preventive care composite is calculated as $P_i = \Sigma w_i r_i$, where w is the proportion of the eligible population for whom the preventive care measure is relevant and r is the proportion of that eligible group receiving preventive care.

CAHPS composites are calculated as

$$S_i = (1/n_i)\ \Sigma(q_j/k_j),$$

where n_i is the number of questions in the composite *i*, q_j is the number giving a favorable response to question *j* in the composite *i*, and k_j is the number responding to that question *j*. CAHPS ratings are calculated as

$$S_i = q_i/k_i,$$

where q_i is the number giving a favorable response and k_i is the (weighted) number responding to rating *i*. All scores are adjusted for age and health status (see above).

F.   TESTS FOR TREND

In the Beneficiary Reports (see below), we use linear regression to estimate a quarterly rate of change and test it for statistical significance. Our estimate for the rate of change, *T*, is

$$T = \sum_{t=1}^{4} w_t (S_t - \overline{S})(t - \overline{t}) / \sum_{t=1}^{4} w_t (t - \overline{t})^2 ,$$

where t is the quarter, S_i is the score and w_i is the total weight of quarter i's observations. In order to test the hypothesis that trend is zero, we use the standard error for the trend coefficient

$$\sigma = \frac{\sqrt{\sum_{t=1}^{4} w_t^2 \sigma_t^2}}{\sum_{t=1}^{4} w_t} , \text{ and}$$

$$S = \sigma / \sqrt{\sum_{t=1}^{4} w_t (t - \overline{t})^2 / \sum_{t=1}^{4} w_t}$$

where σ_t is the standard error for quarter t. The hypothesis test is based on a t-test of the hypothesis that T=0, where n is the total number of observations for all 4 quarters p=Prob(abs(T/S)>0,n).

G.   DEPENDENT AND INDEPENDENT VARIABLES

Dependent, or outcome, variables represent the research questions the survey is designed to answer. For example, beneficiary satisfaction and access are dependent variables in this analysis. The research questions are listed in Chapter 1. Generally, dependent variables form the rows of the tables and the vertical axis of the charts.

Independent, or explanatory, variables do not directly represent research questions, but they may help to explain the differences in one or more of the outcome variables. They may also be correlated with one or more dependent variables. For example, a beneficiary's satisfaction with health care may be correlated with their age and/or TRICARE Prime enrollment status. Each table is designed to help determine whether a particular dependent variable is correlated with a particular independent variable. Independent variables form the columns of the tables and the horizontal axis of the charts.

In analyzing the relationship between dependent and independent variables, Mathematica produced charts and tables that are found in the reports described below. Beginning with the HCSDB in a SAS format, Mathematica programmers developed SAS procedures such as PROC FREQ and PROC MEANS and SAS-callable SUDAAN procedures such as PROC DESCRIPT and PROC CROSSTAB to generate the relevant statistics (e.g., per cents, means, and standard errors). These statistical values were moved directly from SAS programs to Excel tables using a dynamic data exchange to populate the cells of the tables. Graphical displays were generated from table values wherever feasible.

H.   REPORTS

This section lists the three types of reports produced and states the main purpose of each report: 2009 TRICARE Beneficiary Reports, the TRICARE Consumer Watch, and the "Health Care Survey of DoD Beneficiaries: Annual Report." The 2009 TRICARE Beneficiary Reports and the TRICARE Consumer Watch are presented on a quarterly basis and display results from the most recent quarter. The "Health Care Survey of DoD Beneficiaries: Annual Report" is produced annually and describes findings from all four quarters of survey data.

The Beneficiary Reports were modified in 2009 because of the change from CAHPS 3.0 to CAHPS 4.0 questions. The current Beneficiary Reports contain results from both questionnaires. Methods are described in Appendix M.

1.   2009 TRICARE Beneficiary Reports

a.   Purpose

The purpose of the Beneficiary Reports is to provide TRICARE Regional offices, services and MTF commanders with a comprehensive description of TRICARE beneficiaries' satisfaction with care, access to care, and use of preventive care, in comparison with other regions and catchment areas, and with relevant national benchmarks. MHS scores are adjusted using demographic characteristics. Both quarterly and annual Beneficiary Reports are produced. The quarterly reports present results from the most recent quarter for each region, service and for CONUS MHS by beneficiary status and enrollment group, making it easy for the reader to compare findings across groups and quarters. The annual report is a cumulative report that combines results from four quarters and previous years and presents results by catchment area, region, and service.

b. Beneficiary Report Production

1. Content

The quarterly Beneficiary Report presents 12 scores for all beneficiary groups and all enrollment by region and CONUS MHS overall. Scores are presented in the following areas: getting needed care; getting care quickly; courteous and helpful office staff; how well doctors communicate; customer service; claims processing; rating of the health plan, health care, personal doctor, and specialist; healthy behavior; and preventive care standards. The first 6 scores are CAHPS composites, which group together responses to several related survey questions. The CAHPS composite questions are shown in Appendix E. The scores are presented in relation to national benchmarks.

The four ratings of health care and health care providers are health plan, health care, personal doctor, and specialist. Each rating is based on a scale of 0 to 10, where 0 is the worst and 10 is the best. The scores are adjusted for patient age and health status and are presented relative to national benchmarks.

The TMA Standard Composite for preventive care is based on how beneficiaries compare preventive care services offered through the MHS with the Healthy People 2010 goals. Preventive care indicators include prenatal care, hypertension, mammography, and Pap smears.

Healthy behavior combines the non-smoking rate, the rate at which smokers are counseled to quit, and the percent non-obese.

2. Format

a. Programming Specifications

Data for the Beneficiary Reports is arranged in a SAS data set, consisting of records indexed by region, service, catchment area, enrollment group, beneficiary category, and table column. A benchmark corresponding to the MHS population is also included in the SAS data set. Records contain scores and categorical variables showing the existence and directions of significant differences. The benchmark record contains national mean values, where available, for a comparable non-MHS population.

Data files serve as the basis for the electronic reports and quality assurance. The file for the quarterly Beneficiary Reports is updated each quarter and referenced by the report card application. In each quarter, a separate quarterly file is created. The quarterly and annual Beneficiary Reports are coded in HTML and a program generates the information in the form of a data set corresponding to the cells in the tables of the reports described below. Appendix G contains the programs to generate the Beneficiary Reports.

b. Web Specifications

Quarterly Beneficiary Reports are published in a tabular, interactive, HTML format on TRICARE's website, allowing users to "drill down" in the reports to follow the performance of the MHS over time by enrollment status and beneficiary group. Each report consists of several pages of tables. The first set of tables presents the findings for a single quarter for all enrollment and beneficiary groups by region and CONUS MHS. A second set of tables presents the findings for the current quarter and for the past quarters for each enrollment and beneficiary group, by regions and CONUS MHS. Significant differences between the scores and the benchmark are indicated by color, bolding and italics. Scores significantly above the benchmark are green and bold. Scores significantly below the benchmark are red and italicized.

Like the quarterly report, the annual report is presented in HTML tabular format. One set of tables shows cumulative scores for the 2009 HCSDB by region for all beneficiary groups and enrollment

groups. Another set shows scores for the questions that make up the composite, and a third set shows composites or ratings from prior years. The fourth set of tables shows scores for the catchment areas that make up the MHS regions.

2.   TRICARE Consumer Watch

a.   Purpose

Like the TRICARE Beneficiary Reports, the TRICARE Consumer Watch is targeted to TRICARE Regional offices, services and MTF commanders. TRICARE Consumer Watch presents key results from the quarterly HCSDB in a graphical format. The exhibits present TRICARE beneficiaries' experiences with their health care and health plan and utilization rates for preventive services. The TRICARE Consumer Watch is produced on a quarterly basis for all regions and three service affiliations. In the fourth quarter, the TRICARE Consumer Watch is produced for all catchment areas.

Two versions of the quarterly TRICARE Consumer Watch are produced: one for all Prime Enrollees, and one comparing beneficiaries who are enrolled to military facilities (direct care users) with those who rely on civilian care financed by TRICARE through Prime or Standard/Extra (purchased care users).

b.   2009 TRICARE Consumer Watch Production

1.   Content

The Consumer Watch contains graphs presenting four ratings and six composite scores. These graphs are based on data from the Beneficiary Reports. Beneficiaries are asked to rate their experiences with their health care and health plan, and their personal provider on a scale of 0 to 10 where 0 is the worst and 10 is the best. Composite scores evaluate beneficiaries' experiences with the following: getting needed care, getting care quickly, courteous and helpful office staff, how well doctors communicate, customer service, and claims processing. Using data from the National CAHPS Benchmarking Database (NCBD), ratings and composites are compared to experiences of individuals in civilian health plans. Ratings and composites are also compared to results from previous surveys.

Utilization of preventive care services are measured against the goals established by Healthy People 2010 as well as results from the prior years. Preventive care indicators include preventive cancer screenings, such as mammography and Pap smears, hypertension screening, and prenatal care. Preventative care also includes a non-smoking rate and the percentage of smokers counseled to quit.

2.   Format

a.   Programming Specifications

Data for the Consumer Watch is arranged in a SAS data set, and consists of records indexed by region, catchment area, enrollment group, and beneficiary category. Scores for the rating and composite graphs utilize the same programs as the TRICARE Beneficiary Reports. The data file for the Consumer Watch is updated each quarter. The programs to generate the Consumer Watch are in Appendix H.

b.   Report Production Specifications

Though the Consumer Watch files reside on TRICARE's website, it is designed to be used primarily in print form. The reports are created in portable document format (PDF). The Consumer

Watch is arranged on two pages; the key findings are presented as bar graphs. Preventive care scores are presented in table format.

3.   "Health Care Survey of DoD Beneficiaries: Annual Report"

a.   Purpose

The purpose of the "Health Care Survey of DoD Beneficiaries: Annual Report" is to provide OASD(HA), in general, and TMA, in particular, with a comprehensive national summary of the HCSDB findings. The "Health Care Survey of DoD Beneficiaries: Annual Report" bar charts reflect survey data from all respondents in the domestic MHS and incorporates data from the adult and child HCSDB for 2009[4] and previous years.

b.   Procedures for Report Production

1.   Content

The report contains ten chapters and an executive summary:

- Introduction
- Access Through TRICARE Standard and Extra
- Adult Behavioral Health and Health Care
- Child Behavioral Health and Health Care
- Adult Obesity: Disparities in Health and Health Care Access
- Child Obesity: Disparities in Health and Health Care Access
- Health Care Experiences of Deployed Women
- Medicare and TRICARE for Life

2.   Programming Specification

Programs for calculation of the statistics appearing in the report are written in SAS-callable SUDAAN. Means and proportions and their standard errors are calculated using PROC DESCRIPT. Tests for linear trends are performed using PROC REGRESS or PROC RLOGIST. Values are compared with benchmarks from the National CAHPS Benchmarking Database. The benchmarks are readjusted for age and health status using the methods described in Chapter 3, Section D above.

3.   Report Production

Numbers and text are presented using publishing software following models developed by importing SUDAAN results into Excel as a text file. Results in the finished report are compared with their Excel models for accuracy. Methods used in the Annual Report are also described in the "Health Care Survey of DoD Beneficiary: Annual Report."

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[4] For further detail on the 2009 child HCSDB, refer to "the 2009 Health Care Survey of DoD Beneficiaries: Child Codebook and User's Guide" and "The 2009 Health Care Survey of DoD Beneficiaries: Child Technical Manual."

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APPENDIX A

ANNOTATED QUESTIONNAIRE – V4 - QUARTER I

Health Care Survey of DoD Beneficiaries

October 2008

YOUR PRIVACY

Your participation in this survey effort is very important. Your responses are confidential and your participation is voluntary. The number on the back of this survey is ONLY used to let us know if you returned your survey so we don't have to send you reminders.

This is your opportunity to tell officials of your opinions and experiences with the current military health care system. It is also an opportunity to provide feedback and identify areas where improvements are needed.

The survey processing center removes all identifying information before sending the results to the Department of Defense.

Your information is grouped with others and no individual information is shared. Only group statistics will be compiled and reported. No information about you as an individual will be disclosed.

SURVEY INSTRUCTIONS

Answer <u>all</u> the questions by checking the box to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

    ☑   Yes ➔ *Go to Question 42*
    ☐   No

Please return the completed questionnaire in the enclosed postage-paid envelope within **_seven days_**. If the envelope is missing, please send to:

      Office of the Assistant Secretary of Defense (Health Affairs)
      TMA/HPAE
      c/o Synovate Survey Processing Center
      PO Box 5030
      Chicago, IL 60680-4138

As an eligible TRICARE beneficiary, please complete this survey even if you did not receive your health care from a military facility.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

1. Are you the person whose name appears on the cover letter?

                                             H09001

  1 ☐   Yes ➔   *Go to Question 2*
  2 ☐   No ➔   Please give this questionnaire to the person addressed on the cover letter.

2. By which of the following health plans are you currently covered?

MARK ALL THAT APPLY.

Military Health Plans

                                      H09002A-H09002R

A ☐   TRICARE Prime (including TRICARE Prime Remote and TRICARE Overseas)
C ☐   TRICARE Extra or Standard (CHAMPUS)
N ☐   TRICARE Plus
O ☐   TRICARE for Life
P ☐   TRICARE Supplemental Insurance
Q ☐   TRICARE Reserve Select

Other Health Plans

F ☐   Medicare
G ☐   Federal Employees Health Benefit Program (FEHBP)
H ☐   Medicaid
I ☐   A civilian HMO (such as Kaiser)
J ☐   Other civilian health insurance (such as Blue Cross)
K ☐   Uniformed Services Family Health Plan (USFHP)
M ☐   The Veterans Administration (VA)
R ☐   Government health insurance from a country other than the US
L ☐   Not sure

3. **Which health plan did you use for all or most of your health care in the last 12 months?**

| H09003 | See Note 1 |

MARK ONLY ONE ANSWER.

- 1 ☐ TRICARE Prime
- 3 ☐ TRICARE Extra or Standard (CHAMPUS)
- 11 ☐ TRICARE Plus
- 12 ☐ TRICARE Reserve Select
- 4 ☐ Medicare (may include TRICARE for Life)
- 5 ☐ Federal Employees Health Benefit Program (FEHBP)
- 6 ☐ Medicaid
- 7 ☐ A civilian HMO (such as Kaiser)
- 8 ☐ Other civilian health insurance (such as Blue Cross)
- 9 ☐ Uniformed Services Family Health Plan (USFHP)
- 10 ☐ The Veterans Administration (VA)
- 13 ☐ Government health insurance from a country other than the US
- -5 ☐ Not sure
- -6 ☐ Did not use any health plan in the last 12 months ➔ *Go to Question 5*

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 3.

4. **How many months or years in a row have you been in this health plan?**

| H09004 | See Note 1 |

- 1 ☐ Less than 6 months
- 2 ☐ 6 up to 12 months
- 3 ☐ 12 up to 24 months
- 4 ☐ 2 up to 5 years
- 5 ☐ 5 up to 10 years
- 6 ☐ 10 or more years

YOUR HEALTH CARE IN THE LAST 12 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

5. **In the last 12 months, where did you go most often for your health care?**

| H09005 |

MARK ONLY ONE ANSWER.

- 1 ☐ A military facility – This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
- 2 ☐ A civilian facility – This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
- 3 ☐ Uniformed Services Family Health Plan facility (USFHP)
- 4 ☐ Veterans Affairs (VA) clinic or hospital
- 5 ☐ I went to none of the listed types of facilities in the last 12 months

6. **In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?**

| H09006 | See Note 2 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 9*

7. **In the last 12 months, when you needed care right away, how often did you get care as soon as you thought you needed?**

| H09007 | See Note 2 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

8. **In the last 12 months, when you needed care right away for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?**

| H09008 | See Note 2 |

- 1 ☐ Same day
- 2 ☐ 1 day
- 3 ☐ 2 days
- 4 ☐ 3 days
- 5 ☐ 4-7 days
- 6 ☐ 8-14 days
- 7 ☐ 15 days or longer
- -6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

9. **A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for health care.**

In the last 12 months, not counting the times you needed health care right away, did you make any appointments for your health care at a doctor's office or clinic?

| H09009 | See Note 3 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 12*

10. **In the last 12 months, not counting times you needed care right away, how often did you get an appointment for health care at a doctor's office or clinic as soon as you thought you needed?**

| H09010 | See Note 3 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no appointments in the last 12 months

3

11. In the last 12 months, not counting the times you needed health care right away, how many <u>days</u> did you usually have to wait between making an <u>appointment</u> and actually <u>seeing a provider</u>?

H09011
See Note 3

- 1 ☐ Same day
- 2 ☐ 1 day
- 3 ☐ 2-3 days
- 4 ☐ 4-7 days
- 5 ☐ 8-14 days
- 6 ☐ 15-30 days
- 7 ☐ 31 days or longer
- -6 ☐ I had no appointments in the last 12 months

12. In the last 12 months, how many times did you go to an <u>emergency room</u> to get care for yourself?

H09012

- 1 ☐ None
- 2 ☐ 1
- 3 ☐ 2
- 4 ☐ 3
- 5 ☐ 4
- 6 ☐ 5 to 9
- 7 ☐ 10 or more

13. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a <u>doctor's office or clinic</u> to get health care for yourself?

H09013
See Note 4

- 1 ☐ None ➔ *Go to Question 19*
- 2 ☐ 1
- 3 ☐ 2
- 4 ☐ 3
- 5 ☐ 4
- 6 ☐ 5 to 9
- 7 ☐ 10 or more

14. In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?

H09014
See Note 4

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always

15. Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?

H09015
See Notes 4 and 5

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 18*

16. In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?

- 1 ☐ Definitely yes
- 2 ☐ Somewhat yes
- 3 ☐ Somewhat no
- 4 ☐ Definitely no

H09016
See Notes 4 and 5

17. In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?

- 1 ☐ Definitely yes
- 2 ☐ Somewhat yes
- 3 ☐ Somewhat no
- 4 ☐ Definitely no

H09017
See Notes 4 and 5

18. Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?

H09018
See Note 4

- 0 ☐ 0 Worst health care possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best health care possible
- -6 ☐ I had no visits in the last 12 months

YOUR PERSONAL DOCTOR OR NURSE

The next questions ask about <u>your own</u> health care. <u>Do not include</u> care you got when you stayed overnight in a hospital. <u>Do not include</u> the times you went for dental care visits.

19. A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

H09019
See Note 6

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 28*

4

20. In the last 12 months, how many times did you visit your personal doctor to get care for yourself?

0 ☐ None ➜ *Go to Question 27*
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5 to 9
6 ☐ 10 or more

| H09020 | See Notes 6 and 7 |

21. In the last 12 months, how often did your personal doctor listen carefully to you?

| H09021 | See Notes 6 and 7 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

22. In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?

| H09022 | See Notes 6 and 7 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

23. In the last 12 months, how often did your personal doctor show respect for what you had to say?

| H09023 | See Notes 6 and 7 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

24. In the last 12 months, how often did your personal doctor spend enough time with you?

| H09024 | See Notes 6 and 7 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

25. In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?

| H09025 | See Notes 6, 7, and 8 |

1 ☐ Yes
2 ☐ No ➜ *Go to Question 27*

26. In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

| H09026 | See Notes 6 and 8 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always

27. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

0 ☐ 0 Worst personal doctor possible
1 ☐ 1
2 ☐ 2
3 ☐ 3

| H09027 |
| See Note 6 |

4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10 Best personal doctor possible
-6 ☐ I don't have a personal doctor

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

28. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care.

   In the last 12 months, did you try to make any appointments to see a specialist?

| H09028 |
| See Note 9 |

1 ☐ Yes
2 ☐ No ➜ *Go to Question 32*

29. In the last 12 months, how often was it easy to get appointments with specialists?

| H09029 |
| See Note 9 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need a specialist in the last 12 months

30. How many specialists have you seen in the last 12 months?

- 0 ☐ None ➔ *Go to Question 32*
- 1 ☐ 1 specialist
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5 or more specialists

H09030	See Notes 9 and 10

31. We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

H09031	See Notes 9 and 10

- 0 ☐ 0 Worst specialist possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best specialist possible
- -6 ☐ I didn't see a specialist in the last 12 months

32. In general, how would you rate your overall mental or emotional health now?

S09B01

- 1 ☐ Excellent
- 2 ☐ Very good
- 3 ☐ Good
- 4 ☐ Fair
- 5 ☐ Poor

33. In the last 12 months, did you need any treatment or counseling for a personal or family problem?

S09B02
See Note 10A1

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 36*

34. In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?

S09B03
See Note 10A1

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

35. Using any number from 0 to 10, where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?

- 0 ☐ 0 Worst treatment or counseling possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best treatment or counseling possible
- -6 ☐ I had no treatment or counseling in the last 12 months

S09B04
See Note 10A1

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

36. In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 38*

H09032
See Note 11

37. In the last 12 months, how often was it easy to get the care, tests or treatment you thought you needed through your health plan?

H09033
See Note 11

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need any care, tests, or treatment through my health plan in the last 12 months

38. In the last 12 months, how often did the written material or the Internet provide the information you needed about how your plan works?

H09034

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't look for information from my health plan in the last 12 months

39. Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen.

In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?

| H09035 |
| See Note 12 |

1 ☐ Yes
2 ☐ No ➔ *Go to Question 41*

40. In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?

| H09036 |
| See Note 12 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need a health care service or equipment from my health plan in the last 12 months

41. In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy.

In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?

| H09037 |
| See Note 13 |

1 ☐ Yes
2 ☐ No ➔ *Go to Question 43*

42. In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?

| H09038 |
| See Note 13 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need a prescription medications from my health plan in the last 12 months

43. In the last 12 months, did you try to get information or help from your health plan's customer service?

| H09039 |
| See Note 14 |

1 ☐ Yes
2 ☐ No ➔ *Go to Question 46*

44. In the last 12 months, how often did your health plan's customer service give you the information or help you needed?

| H09040 |
| See Note 14 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't call my heath plan's customer service in the last 12 months

45. In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?

| H09041 |
| See Note 14 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't call my heath plan's customer service in the last 12 months

46. In the last 12 months, did your health plan give you any forms to fill out?

| H09042 |
| See Note 15 |

1 ☐ Yes
2 ☐ No ➔ *Go to Question 48*

47. In the last 12 months, how often were the forms from your health plan easy to fill out?

| H09043 |
| See Note 15 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't have any experiences with paperwork for my health plan in the last 12 months

48. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?

1 ☐ Yes
2 ☐ No ➔ *Go to Question 51*
-5 ☐ Don't know ➔ *Go to Question 51*

| H09044 |
| See Note 16 |

7

49. In the last 12 months, how often did your health plan handle your claims quickly?

H09045

See Note 16

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

50. In the last 12 months, how often did your health plan handle your claims correctly?

H09046

See Note 16

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

51. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

H09047

- 0 ☐ 0 Worst health plan possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best health plan possible

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

52. When did you last have a blood pressure reading?

H09048

- 3 ☐ Less than 12 months ago
- 2 ☐ 1 to 2 years ago
- 1 ☐ More than 2 years ago

53. Do you know if your blood pressure is too high?

H09049

- 1 ☐ Yes, it is too high
- 2 ☐ No, it is not too high
- 3 ☐ Don't know

54. When did you last have a flu shot?

H09050

- 4 ☐ Less than 12 months ago
- 3 ☐ 1-2 years ago
- 2 ☐ More than 2 years ago
- 1 ☐ Never had a flu shot

55. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

H09051

See Note 17

- 1 ☐ Yes
- 2 ☐ No   ➜ *Go to Question 60*
- -5 ☐ Don't know ➜ *Go to Question 60*

56. Do you now smoke cigarettes every day, some days or not at all?

H09052

See Note 17

- 4 ☐ Every day ➜ *Go to Question 57*
- 3 ☐ Some days ➜ *Go to Question 57*
- 2 ☐ Not at all ➜ *Go to Question 60*
- -5 ☐ Don't know ➜ *Go to Question 60*

57. In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?

H09053

See Notes 17 and 18

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

58. On how many visits was medication recommended or discussed to assist you with quitting smoking (for example: nicotine gum, patch, nasal spray, inhaler, prescription medication)?

H09054

See Notes 17 and 18

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

59. On how many visits did your doctor or health provider recommend or discuss methods and strategies (other than medication) to assist you with quitting smoking?

H09055

See Notes 17 and 18

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

60. Have you ever used or tried any smokeless tobacco products such as chewing tobacco or snuff?

S09D01

See Note 18A1

1 ☐ Yes ➜ *Go to Question 61*
2 ☐ No ➜ *Go to Question 62*
-5 ☐ Don't know ➜ *Go to Question 62*

61. Do you currently use chewing tobacco or snuff everyday, some days or not at all?

S09D02

See Note 18A1

1 ☐ Every day
2 ☐ Some days
3 ☐ Not at all
-5 ☐ Don't know

62. Do currently use any tobacco products other than cigarettes, such as cigars, pipes, bidis, kreteks, or any other tobacco product?

Note: Bidis are small, brown, hand-rolled cigarettes from India and other southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.

S09D03

1 ☐ Yes
2 ☐ No
-5 ☐ Don't know

63. If you use tobacco products other than cigarettes, on how many visits in the last 12 months were you advised to quit by a doctor or other health provider in your plan?

S09D04

1 ☐ None
2 ☐ 1 visit
3 ☐ 2 to 4 visits
4 ☐ 5 to 9 visits
5 ☐ 10 or more visits
-6 ☐ I had no visits in the last 12 months
-7 ☐ I do not use other tobacco products

64. Are you male or female?

H09056

See Note 19A

1 ☐ Male ➜ *Go to Question 71*
2 ☐ Female

65. When did you last have a Pap smear test?

5 ☐ Within the last 12 months
4 ☐ 1 to 3 years ago
3 ☐ More than 3 but less than 5 years ago
2 ☐ 5 or more years ago
1 ☐ Never had a Pap smear test

H09057 | See Notes 19A and 19B

66. Are you under age 40?

1 ☐ Yes ➜ *Go to Question 68*
2 ☐ No

H09058 | See Notes 19A, 19B, and 20

67. When was the last time your breasts were checked by mammography?

H09059 | See Notes 19A, 19B, and 20

5 ☐ Within the last 12 months
4 ☐ 1 to 2 years ago
3 ☐ More than 2 years ago but less than 5 years ago
2 ☐ 5 or more years ago
1 ☐ Never had a mammogram

68. Have you been pregnant in the last 12 months or are you pregnant now?

H09060 | See Notes 19A, 19B, and 21

1 ☐ Yes, I am currently pregnant ➜ *Go to Question 69*
2 ☐ No, I am not currently pregnant, but have been pregnant in the past 12 months ➜ *Go to Question 70*
3 ☐ No, I am not currently pregnant, and have not been pregnant in the past 12 months ➜ *Go to Question 71*

69. In what trimester is your pregnancy?

1 ☐ First trimester (up to 12 weeks after 1st day of last period) ➜ *Go to Question 71*
2 ☐ Second trimester (13th through 27th week)
3 ☐ Third trimester (28th week until delivery)

H09061 | See Notes 19A, 19B, and 21

70. In which trimester did you first receive prenatal care?

4 ☐ First trimester (up to 12 weeks after 1st day of last period)
3 ☐ Second trimester (13th through 27th week)
2 ☐ Third trimester (28th week until delivery)
1 ☐ Did not receive prenatal care

H09062 | See Notes 19A, 19B, and 21

ABOUT YOU

71. In general, how would you rate your overall health now?

5 ☐ Excellent
4 ☐ Very good
3 ☐ Good
2 ☐ Fair
1 ☐ Poor

H09063

72. Are you limited in any way in any activities because of any impairment or health problem?

H09064

1 ☐ Yes
2 ☐ No

73. In the last 12 months, have you seen a doctor or other health provider 3 or more times for the same condition or problem?

1 ☐ Yes
2 ☐ No ➔ *Go to Question 75*

H09065
See Note 22

74. Is this a condition or problem that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

1 ☐ Yes
2 ☐ No

H09066
See Note 22

75. Do you now need or take medicine prescribed by a doctor? Do <u>not</u> include birth control.

1 ☐ Yes
2 ☐ No ➔ *Go to Question 77*

H09067
See Note 23

76. Is this medicine to treat a condition that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

1 ☐ Yes
2 ☐ No

H09068
See Note 23

77. How tall are you without your shoes on? Please give your answer in feet and inches.

H09069F, H09069I

Example:

Height		Height	
Feet	Inches	Feet	Inches
5	**6**		
☐ 1	☐ 0	☐ 1	☐ 0
☐ 2	☐ 1	☐ 2	☐ 1
☐ 3	☐ 2	☐ 3	☐ 2
☐ 4	☐ 3	☐ 4	☐ 3
☑ 5	☐ 4	☐ 5	☐ 4
☐ 6	☐ 5	☐ 6	☐ 5
☐ 7	☑ 6	☐ 7	☐ 6
	☐ 7		☐ 7
	☐ 8		☐ 8
	☐ 9		☐ 9
	☐ 10		☐ 10
	☐ 11		☐ 11

78. How much do you weigh without your shoes on? Please give your answer in pounds.

H09070

Example:

Weight			Weight		
Pounds			Pounds		
1	**6**	**0**			
☐ 0	☐ 0	☑ 0	☐ 0	☐ 0	☐ 0
☑ 1	☐ 1	☐ 1	☐ 1	☐ 1	☐ 1
☐ 2	☐ 2	☐ 2	☐ 2	☐ 2	☐ 2
☐ 3	☐ 3	☐ 3	☐ 3	☐ 3	☐ 3
	☐ 4	☐ 4		☐ 4	☐ 4
	☐ 5	☐ 5		☐ 5	☐ 5
	☑ 6	☐ 6		☐ 6	☐ 6
	☐ 7	☐ 7		☐ 7	☐ 7
	☐ 8	☐ 8		☐ 8	☐ 8
	☐ 9	☐ 9		☐ 9	☐ 9

79. What is the highest grade or level of school that you have completed?

SREDA

1 ☐ 8th grade or less
2 ☐ Some high school, but did not graduate
3 ☐ High school graduate or GED
4 ☐ Some college or 2-year degree
5 ☐ 4-year college graduate
6 ☐ More than 4-year college degree

80. Are you of Hispanic or Latino origin or descent?

(Mark "NO" if not Spanish/Hispanic/Latino.)

A ☐ No, not Spanish, Hispanic, or Latino
B ☐ Yes, Mexican, Mexican American, Chicano
C ☐ Yes, Puerto Rican
D ☐ Yes, Cuban
E ☐ Yes, other Spanish, Hispanic, or Latino

H09071, H09071A-H09071E | See Note 24

81. What is your race?

(Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRRACEA-SRRACEE

A ☐ White
B ☐ Black or African American
C ☐ American Indian or Alaska Native
D ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)

82. What is your age now?

SRAGE

- 1 ☐ 18 to 24
- 2 ☐ 25 to 34
- 3 ☐ 35 to 44
- 4 ☐ 45 to 54
- 5 ☐ 55 to 64
- 6 ☐ 65 to 74
- 7 ☐ 75 or older

83. Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.

H09072

- 1 ☐ Yes, I am now covered by Medicare Part A
- 2 ☐ No, I am not covered by Medicare Part A

84. Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H09073

- 1 ☐ Yes, I am now covered by Medicare Part B
- 2 ☐ No, I am not covered by Medicare Part B

85. Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H09074

- 1 ☐ Yes, I am now covered by Medicare supplemental insurance
- 2 ☐ No, I am not covered by Medicare supplemental insurance

86. If you were free to choose between civilian and military facilities for all of your health care, which would you prefer? Would you say …

S09N11

- 1 ☐ All care from military facilities
- 2 ☐ All care from civilian facilities
- 3 ☐ Some care from both military and civilian facilities
- 4 ☐ Or, no preference

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY! Your generous contribution will greatly aid efforts to improve the health of our military community.

Return your survey in the postage-paid envelope. If the envelope is missing, please send to:

> Office of the Assistant Secretary of Defense (HA)
> TMA/HPAE
> c/o Synovate Survey Processing Center
> PO Box 5030
> Chicago, IL 60680-4138

Questions about the survey?

Email: survey-dodq2@synovate.net

Toll-free phone (in the US, Puerto Rico and Canada): **1-877-236-2390**, available 24 hours a day
Toll-free fax (in the US and Canada): 1-800-409-7681

International Toll-Free numbers:
Germany: 0 800 182 1532
Great Britain: 008 234 7139
Japan: 0053 11 30 814
South Korea: 003 0813 1286
Mexico: 001 877 238 5171
Philippines: 1 800 1116 2366

When calling or writing, please provide your name, address, and the 8-digit number above your address on the envelope.

Questions about your TRICARE coverage?

For additional information on TRICARE, or if you are not sure about your benefits, or if you don't have a primary care manager; contact the TRICARE Service Center in your region:

> North: 1-877-874-2273
> South: 1-800-444-5445
> West: 1-888-874-9378
> Outside the US: 1-888-777-8343

The website is:
www.tricare.osd.mil/tricareservicecenters

Veterans: Contact the US Department of Veterans Affairs at **1-877-222-VETS**; or go to www.va.gov

APPENDIX A

ANNOTATED QUESTIONNAIRE – V4 – QUARTER II

Health Care Survey of DoD Beneficiaries

January 2009

According to the Privacy Act of 1974 (Public Law 93-579), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C., Chapter 55; Section 706, Public Law 102-484; E.O. 9397.

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military health care system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None

Disclosure: Voluntary. Failure to respond will not result in any penalty to the respondent. However, maximum participation is encouraged so that data will be as complete and representative as possible.

YOUR PRIVACY

Your participation in this survey effort is very important. Your responses are confidential and your participation is voluntary. The number on the back of this survey is ONLY used to let us know if you returned your survey so we don't have to send you reminders.

This is your opportunity to tell officials of your opinions and experiences with the current military health care system. It is also an opportunity to provide feedback and identify areas where improvements are needed.

The survey processing center removes all identifying information before sending the results to the Department of Defense.

Your information is grouped with others and no individual information is shared. Only group statistics will be compiled and reported. No information about you as an individual will be disclosed.

SURVEY INSTRUCTIONS

Answer <u>all</u> the questions by checking the box to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

    ☑   Yes ➔ *Go to Question 42*
    ☐   No

Please return the completed questionnaire in the enclosed postage-paid envelope within **<u>seven days</u>**. If the envelope is missing, please send to:

    Office of the Assistant Secretary of Defense (Health Affairs)
    TMA/HPAE
    c/o Synovate Survey Processing Center
    PO Box 5030
    Chicago, IL 60680-4138

SURVEY STARTS HERE

As an eligible TRICARE beneficiary, please complete this survey even if you did not receive your health care from a military facility.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

1. Are you the person whose name appears on the cover letter?

H09001

  ¹ ☐   Yes ➔   *Go to Question 2*
  ² ☐   No ➔   Please give this questionnaire to the person addressed on the cover letter.

2. By which of the following health plans are you currently covered?

H09002A-H09002R

MARK ALL THAT APPLY.

Military Health Plans

  ᴬ ☐   TRICARE Prime (including TRICARE Prime Remote and TRICARE Overseas)
  ᶜ ☐   TRICARE Extra or Standard (CHAMPUS)
  ᴺ ☐   TRICARE Plus
  ᴼ ☐   TRICARE for Life
  ᴾ ☐   TRICARE Supplemental Insurance
  �Q ☐   TRICARE Reserve Select

Other Health Plans

  ᶠ ☐   Medicare
  ᴳ ☐   Federal Employees Health Benefit Program (FEHBP)
  ᴴ ☐   Medicaid
  ᴵ ☐   A civilian HMO (such as Kaiser)
  ᴶ ☐   Other civilian health insurance (such as Blue Cross)
  ᴷ ☐   Uniformed Services Family Health Plan (USFHP)
  ᴹ ☐   The Veterans Administration (VA)
  ᴿ ☐   Government health insurance from a country other than the US
  ᴸ ☐   Not sure

3. **Which health plan did you use for all or most of your health care in the last 12 months?**

H09003

See Note 1

MARK ONLY ONE ANSWER.

- 1 ☐ TRICARE Prime
- 3 ☐ TRICARE Extra or Standard (CHAMPUS)
- 11 ☐ TRICARE Plus
- 12 ☐ TRICARE Reserve Select
- 4 ☐ Medicare (may include TRICARE for Life)
- 5 ☐ Federal Employees Health Benefit Program (FEHBP)
- 6 ☐ Medicaid
- 7 ☐ A civilian HMO (such as Kaiser)
- 8 ☐ Other civilian health insurance (such as Blue Cross)
- 9 ☐ Uniformed Services Family Health Plan (USFHP)
- 10 ☐ The Veterans Administration (VA)
- 13 ☐ Government health insurance from a country other than the US
- -5 ☐ Not sure
- -6 ☐ Did not use any health plan in the last 12 months ➜ *Go to Question 5*

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 3.

4. **How many months or years in a row have you been in this health plan?**

H09004

See Note 1

- 1 ☐ Less than 6 months
- 2 ☐ 6 up to 12 months
- 3 ☐ 12 up to 24 months
- 4 ☐ 2 up to 5 years
- 5 ☐ 5 up to 10 years
- 6 ☐ 10 or more years

YOUR HEALTH CARE IN THE LAST 12 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

5. **In the last 12 months, where did you go most often for your health care?**

H09005

MARK ONLY ONE ANSWER.

- 1 ☐ A military facility – This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
- 2 ☐ A civilian facility – This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
- 3 ☐ Uniformed Services Family Health Plan facility (USFHP)
- 4 ☐ Veterans Affairs (VA) clinic or hospital
- 5 ☐ I went to none of the listed types of facilities in the last 12 months

6. **In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?**

H09006

See Note 2

- 1 ☐ Yes
- 2 ☐ No ➜ *Go to Question 9*

7. **In the last 12 months, when you needed care right away, how often did you get care as soon as you thought you needed?**

H09007

See Note 2

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

8. **In the last 12 months, when you needed care right away for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?**

H09008

See Note 2

- 1 ☐ Same day
- 2 ☐ 1 day
- 3 ☐ 2 days
- 4 ☐ 3 days
- 5 ☐ 4-7 days
- 6 ☐ 8-14 days
- 7 ☐ 15 days or longer
- -6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

9. **A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for health care.**

In the last 12 months, not counting the times you needed health care right away, did you make any appointments for your health care at a doctor's office or clinic?

H09009

See Note 3

- 1 ☐ Yes
- 2 ☐ No ➜ *Go to Question 12*

10. **In the last 12 months, not counting times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?**

H09010

See Note 3

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no appointments in the last 12 months

3

11. In the last 12 months, not counting the times you needed health care right away, how many <u>days</u> did you usually have to wait between making an <u>appointment</u> and actually <u>seeing a provider</u>?

H09011

See Note 3

- ₁ ☐ Same day
- ₂ ☐ 1 day
- ₃ ☐ 2-3 days
- ₄ ☐ 4-7 days
- ₅ ☐ 8-14 days
- ₆ ☐ 15-30 days
- ₇ ☐ 31 days or longer
- -6 ☐ I had no appointments in the last 12 months

12. In the last 12 months, how many times did you go to an <u>emergency room</u> to get care for yourself?

H09012

- ₁ ☐ None
- ₂ ☐ 1
- ₃ ☐ 2
- ₄ ☐ 3
- ₅ ☐ 4
- ₆ ☐ 5 to 9
- ₇ ☐ 10 or more

13. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a <u>doctor's office or clinic</u> to get health care for yourself?

H09013

- ₁ ☐ None ➜ *Go to Question 19* See Note 4
- ₂ ☐ 1
- ₃ ☐ 2
- ₄ ☐ 3
- ₅ ☐ 4
- ₆ ☐ 5 to 9
- ₇ ☐ 10 or more

14. In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?

H09014

See Note 4

- ₁ ☐ Never
- ₂ ☐ Sometimes
- ₃ ☐ Usually
- ₄ ☐ Always

15. Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?

H09015

See Notes 4 and 5

- ₁ ☐ Yes
- ₂ ☐ No ➜ *Go to Question 18*

16. In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?

H09016

See Notes 4 and 5

- ₁ ☐ Definitely yes
- ₂ ☐ Somewhat yes
- ₃ ☐ Somewhat no
- ₄ ☐ Definitely no

17. In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?

H09017

See Notes 4 and 5

- ₁ ☐ Definitely yes
- ₂ ☐ Somewhat yes
- ₃ ☐ Somewhat no
- ₄ ☐ Definitely no

18. Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?

H09018

See Note 4

- ₀ ☐ 0 Worst health care possible
- ₁ ☐ 1
- ₂ ☐ 2
- ₃ ☐ 3
- ₄ ☐ 4
- ₅ ☐ 5
- ₆ ☐ 6
- ₇ ☐ 7
- ₈ ☐ 8
- ₉ ☐ 9
- 10 ☐ 10 Best health care possible
- -6 ☐ I had no visits in the last 12 months

YOUR PERSONAL DOCTOR OR NURSE

The next questions ask about <u>your own</u> health care. <u>Do not</u> include care you got when you stayed overnight in a hospital. <u>Do not</u> include the times you went for dental care visits.

19. A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

H09019

See Note 6

- ₁ ☐ Yes
- ₂ ☐ No ➜ *Go to Question 28*

20. In the last 12 months, how many times did you visit your personal doctor to get care for yourself?

H09020

- 0 ☐ None ➔ *Go to Question 27* See Notes 6 and 7
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5 to 9
- 6 ☐ 10 or more

21. In the last 12 months, how often did your personal doctor listen carefully to you?

H09021

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

22. In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?

H09022

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

23. In the last 12 months, how often did your personal doctor show respect for what you had to say?

H09023

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

24. In the last 12 months, how often did your personal doctor spend enough time with you?

H09024

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

25. In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?

H09025

See Notes 6, 7, and 8

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 27*

26. In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

H09026

See Notes 6, 7, and 8

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always

27. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

- 0 ☐ 0 Worst personal doctor possible
- 1 ☐ 1
- 2 ☐ 2

H09027

See Note 6

- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best personal doctor possible
- -6 ☐ I don't have a personal doctor

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits or care you got when you stayed overnight in a hospital.

28. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care.

In the last 12 months, did you try to make any appointments to see a specialist?

H09028

See Note 9

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 32*

29. In the last 12 months, how often was it easy to get appointments with specialists?

H09029

See Note 9

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need a specialist in the last 12 months

5

30. How many specialists have you seen in the last 12 months?

- 0 ☐ None ➔ *Go to Question 32*
- 1 ☐ 1 specialist
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5 or more specialists

H09030

See Notes 9 and 10

31. We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

H09031

See Notes 9 and 10

- 0 ☐ 0 Worst specialist possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best specialist possible
- -6 ☐ I didn't see a specialist in the last 12 months

32. In general, how would you rate your overall mental or emotional health now?

S09B01

- 1 ☐ Excellent
- 2 ☐ Very good
- 3 ☐ Good
- 4 ☐ Fair
- 5 ☐ Poor

33. In the last 12 months, did you need any treatment or counseling for a personal or family problem?

S09B02

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 36*

See Note 10A1

34. In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?

S09B03

See Note 10A1

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

35. Using any number from 0 to 10, where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?

- 0 ☐ 0 Worst treatment or counseling possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best treatment or counseling possible
- -6 ☐ I had no treatment or counseling in the last 12 months

S09B04

See Note 10A1

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

36. In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?

H09032

See Note 11

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 38*

37. In the last 12 months, how often was it easy to get the care, tests or treatment you thought you needed through your health plan?

H09033

See Note 11

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need care, tests or treatment through my health plan in the last 12 months

38. In the last 12 months, how often did the written material or the Internet provide the information you needed about how your plan works?

H09034

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't look for information from my health plan in the last 12 months

39. **Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen.**

    In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?

    | H09035 |
    | See Note 12 |

    - ₁ ☐ Yes
    - ₂ ☐ No   ➜ *Go to Question 41*

40. **In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?**

    | H09036 |
    | See Note 12 |

    - ₁ ☐ Never
    - ₂ ☐ Sometimes
    - ₃ ☐ Usually
    - ₄ ☐ Always
    - -₆ ☐ I didn't need a health care service or equipment from my health plan in the last 12 months

41. **In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy.**

    In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?

    | H09037 |
    | See Note 13 |

    - ₁ ☐ Yes
    - ₂ ☐ No   ➜ *Go to Question 43*

42. **In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?**

    | H09038 |
    | See Note 13 |

    - ₁ ☐ Never
    - ₂ ☐ Sometimes
    - ₃ ☐ Usually
    - ₄ ☐ Always
    - -₆ ☐ I didn't need prescription medications from my health plan in the last 12 months

43. **In the last 12 months, did you try to get information or help from your health plan's customer service?**

    | H09039 |
    | See Note 14 |

    - ₁ ☐ Yes
    - ₂ ☐ No   ➜ *Go to Question 46*

44. **In the last 12 months, how often did your health plan's customer service give you the information or help you needed?**

    | H09040 |
    | See Note 14 |

    - ₁ ☐ Never
    - ₂ ☐ Sometimes
    - ₃ ☐ Usually
    - ₄ ☐ Always
    - -₆ ☐ I didn't call my health plan's customer service in the last 12 months

45. **In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?**

    | H09041 |
    | See Note 14 |

    - ₁ ☐ Never
    - ₂ ☐ Sometimes
    - ₃ ☐ Usually
    - ₄ ☐ Always
    - -₆ ☐ I didn't call my health plan's customer service in the last 12 months

46. **In the last 12 months, did your health plan give you any forms to fill out?**

    | H09042 |
    | See Note 15 |

    - ₁ ☐ Yes
    - ₂ ☐ No   ➜ *Go to Question 48*

47. **In the last 12 months, how often were the forms from your health plan easy to fill out?**

    | H09043 |
    | See Note 15 |

    - ₁ ☐ Never
    - ₂ ☐ Sometimes
    - ₃ ☐ Usually
    - ₄ ☐ Always
    - -₆ ☐ I didn't have any experiences with paperwork for my health plan in the last 12 months

48. **Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?**

    | H09044 |
    | See Note 16 |

    - ₁ ☐ Yes
    - ₂ ☐ No   ➜ *Go to Question 51*
    - -₅ ☐ Don't know ➜ *Go to Question 51*

49. In the last 12 months, how often did your health plan handle your claims quickly?

| H09045 |
| See Note 16 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

50. In the last 12 months, how often did your health plan handle your claims correctly?

| H09046 |
| See Note 16 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

51. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

| H09047 |

- 0 ☐ 0 Worst health plan possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best health plan possible

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

52. When did you last have a blood pressure reading?

| H09048 |

- 3 ☐ Less than 12 months ago
- 2 ☐ 1 to 2 years ago
- 1 ☐ More than 2 years ago

53. Do you know if your blood pressure is too high?

| H09049 |

- 1 ☐ Yes, it is too high
- 2 ☐ No, it is not too high
- 3 ☐ Don't know

54. For a blood stool test, a person uses a home kit and puts some stool on a card. The card is sent to the doctor's office or lab. Have you ever had this test using a home kit?

| S09Q01 | See Note 16A1 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 56*
- -5 ☐ Don't know ➔ *Go to Question 56*

55. How long has it been since you had your last blood stool test using a home kit?

| S09Q02 | See Note 16A1 |

- 1 ☐ Less than 12 months ago
- 2 ☐ At least one year but less than 2 years ago
- 3 ☐ At least 2 years but less than 5 years ago
- 4 ☐ 5 or more years ago
- -6 ☐ Never had a blood stool test
- -5 ☐ Don't know

56. Sigmoidoscopy and colonoscopy are exams in which a lighted tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you had either of these exams?

| S09Q03 | See Note 16A2 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 59*
- -5 ☐ Don't know ➔ *Go to Question 59*

57. A sigmoidoscopy is limited to the lower part of the colon and is usually done without anesthesia. How long has it been since you had your last sigmoidoscopy?

| S09Q04 | See Note 16A2 |

- 1 ☐ Less than 12 months ago
- 2 ☐ At least one year but less than 2 years ago
- 3 ☐ At least 2 years but less than 5 years ago
- 4 ☐ 5 or more years ago
- -6 ☐ Never had a sigmoidoscopy
- -5 ☐ Don't know

58. For a colonoscopy the entire colon is examined and patients usually receive medication in their veins to relax them and make them feel sleepy. How long has it been since you had your last colonoscopy?

| S09Q05 | See Note 16A2 |

- 1 ☐ Less than 12 months ago
- 2 ☐ At least one year but less than 2 years ago
- 3 ☐ At least 2 years but less than 5 years ago
- 4 ☐ At least 5 but less than 10 years ago
- 5 ☐ 10 or more years ago
- -6 ☐ Never had a colonoscopy
- -5 ☐ Don't know

59. When did you last have a flu shot?

| H09050 |

- 4 ☐ Less than 12 months ago
- 3 ☐ 1-2 years ago
- 2 ☐ More than 2 years ago
- 1 ☐ Never had a flu shot

60. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

H09051

See Note 17

¹ ☐ Yes
² ☐ No   ➔ *Go to Question 65*
⁻⁵ ☐ Don't know   ➔ *Go to Question 65*

61. Do you now smoke cigarettes every day, some days or not at all?

H09052

See Note 17

⁴ ☐ Every day   ➔ *Go to Question 62*
³ ☐ Some days   ➔ *Go to Question 62*
² ☐ Not at all   ➔ *Go to Question 65*
⁻⁵ ☐ Don't know   ➔ *Go to Question 65*

62. In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?

H09053

See Notes 17 and 18

¹ ☐ None
² ☐ 1 visit
³ ☐ 2 to 4 visits
⁴ ☐ 5 to 9 visits
⁵ ☐ 10 or more visits
⁻⁶ ☐ I had no visits in the last 12 months

63. On how many visits was medication recommended or discussed to assist you with quitting smoking (for example: nicotine gum, patch, nasal spray, inhaler, prescription medication)?

H09054

See Notes 17 and 18

¹ ☐ None
² ☐ 1 visit
³ ☐ 2 to 4 visits
⁴ ☐ 5 to 9 visits
⁵ ☐ 10 or more visits
⁻⁶ ☐ I had no visits in the last 12 months

64. On how many visits did your doctor or health provider recommend or discuss methods and strategies (other than medication) to assist you with quitting smoking?

H09055

See Notes 17 and 18

¹ ☐ None
² ☐ 1 visit
³ ☐ 2 to 4 visits
⁴ ☐ 5 to 9 visits
⁵ ☐ 10 or more visits
⁻⁶ ☐ I had no visits in the last 12 months

65. Do you currently smoke any tobacco products other than cigarettes, such as cigars, pipes, bidis, kreteks, or any other tobacco product?

Note: Bidis are small, brown, hand-rolled cigarettes from India and other southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.

S09D03

¹ ☐ Yes
² ☐ No
⁻⁵ ☐ Don't know

66. Have you ever used or tried any <u>smokeless</u> tobacco products such as dip, chewing tobacco, snuff or snus?

S09D01

See Note 18A1

¹ ☐ Yes   ➔ *Go to Question 67*
² ☐ No   ➔ *Go to Question 69*
⁻⁵ ☐ Don't know ➔ *Go to Question 69*

67. Do you currently use <u>smokeless</u> tobacco products such as dip, chewing tobacco, snuff or snus every day, some days or not at all?

S09D02

See Note 18A1

¹ ☐ Every day
² ☐ Some days
³ ☐ Not at all   ➔ *Go to Question 69*

68. In a typical week, how much dip, chewing tobacco, snuff, or snus do you use?

S09D05

See Note 18A1

³ ☐ Two or more cans or pouches a week
² ☐ One to two cans or pouches a week
¹ ☐ Less than one can or pouch a week
⁻⁵ ☐ Don't know

69. If you use tobacco products other than cigarettes, including smokeless tobacco, cigars, pipes, bidis or kreteks, on how many visits in the last 12 months were you advised to quit by a doctor or other health provider in your plan?

S09D04

¹ ☐ None
² ☐ 1 visit
³ ☐ 2 to 4 visits
⁴ ☐ 5 to 9 visits
⁵ ☐ 10 or more visits
⁻⁶ ☐ I had no visits in the last 12 months
⁻⁷ ☐ I do not use other tobacco products

70. Are you male or female?

H09056

See Note 19A

¹ ☐ Male ➔ *Go to Question 77*
² ☐ Female

71. When did you last have a Pap smear test?

H09057

See Notes 19A and 19B

⁵ ☐ Within the last 12 months
⁴ ☐ 1 to 3 years ago
³ ☐ More than 3 but less than 5 years ago
² ☐ 5 or more years ago
¹ ☐ Never had a Pap smear test

72. Are you under age 40?

H09058

See Notes 19A, 19B and 20

¹ ☐ Yes ➔ *Go to Question 74*
² ☐ No

9

73. When was the last time your breasts were checked by mammography?

H09059

See Notes 19A, 19B and 20

- 5 ☐ Within the last 12 months
- 4 ☐ 1 to 2 years ago
- 3 ☐ More than 2 years ago but less than 5 years ago
- 2 ☐ 5 or more years ago
- 1 ☐ Never had a mammogram

74. Have you been pregnant in the last 12 months or are you pregnant now?

H09060 See Notes 19A, 19B and 21

- 1 ☐ Yes, I am currently pregnant ➜ *Go to Question 75*
- 2 ☐ No, I am not currently pregnant, but have been pregnant in the past 12 months ➜ *Go to Question 76*
- 3 ☐ No, I am not currently pregnant, and have not been pregnant in the past 12 months ➜ *Go to Question 77*

75. In what trimester is your pregnancy?

H09061

See Notes 19A, 19B and 21

- 1 ☐ First trimester (up to 12 weeks after 1st day of last period) ➜ *Go to Question 77*
- 2 ☐ Second trimester (13th through 27th week)
- 3 ☐ Third trimester (28th week until delivery)

76. In which trimester did you first receive prenatal care?

H09062 See Notes 19A, 19B and 21

- 4 ☐ First trimester (up to 12 weeks after 1st day of last period)
- 3 ☐ Second trimester (13th through 27th week)
- 2 ☐ Third trimester (28th week until delivery)
- 1 ☐ Did not receive prenatal care

ABOUT YOU

77. In general, how would you rate your overall health now?

H09063

- 5 ☐ Excellent
- 4 ☐ Very good
- 3 ☐ Good
- 2 ☐ Fair
- 1 ☐ Poor

78. Are you limited in any way in any activities because of any impairment or health problem?

H09064

- 1 ☐ Yes
- 2 ☐ No

79. In the past 12 months, have you seen a doctor or other health provider 3 or more times for the same condition or problem?

H09065

See Note 22

- 1 ☐ Yes
- 2 ☐ No ➜ *Go to Question 81*

80. Is this a condition or problem that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

- 1 ☐ Yes

H09066

- 2 ☐ No

See Note 22

81. Do you now need or take medicine prescribed by a doctor? Do <u>not</u> include birth control.

H09067

See Note 23

- 1 ☐ Yes
- 2 ☐ No ➜ *Go to Question 83*

82. Is this medicine to treat a condition that has lasted for at least 3 months? Do <u>not</u> include pregnancy or menopause.

H09068

- 1 ☐ Yes
- 2 ☐ No

See Note 23

83. How tall are you without your shoes on? Please give your answer in feet and inches.

H09069F, H09069I

Example:

Height			Height	
Feet	Inches		Feet	Inches
5	**6**		___	___
☐ 1	☐ 0		☐ 1	☐ 0
☐ 2	☐ 1		☐ 2	☐ 1
☐ 3	☐ 2		☐ 3	☐ 2
☐ 4	☐ 3		☐ 4	☐ 3
☑ 5	☐ 4		☐ 5	☐ 4
☐ 6	☐ 5		☐ 6	☐ 5
☐ 7	☑ 6		☐ 7	☐ 6
	☐ 7			☐ 7
	☐ 8			☐ 8
	☐ 9			☐ 9
	☐ 10			☐ 10
	☐ 11			☐ 11

84. How much do you weigh without your shoes on? Please give your answer in pounds.

H09070

Example:

Weight				Weight		
Pounds				Pounds		
1	**6**	**0**		___	___	___
☐ 0	☐ 0	☑ 0		☐ 0	☐ 0	☐ 0
☑ 1	☐ 1	☐ 1		☐ 1	☐ 1	☐ 1
☐ 2	☐ 2	☐ 2		☐ 2	☐ 2	☐ 2
☐ 3	☐ 3	☐ 3		☐ 3	☐ 3	☐ 3
	☐ 4	☐ 4			☐ 4	☐ 4
	☐ 5	☐ 5			☐ 5	☐ 5
	☑ 6	☐ 6			☐ 6	☐ 6
	☐ 7	☐ 7			☐ 7	☐ 7
	☐ 8	☐ 8			☐ 8	☐ 8
	☐ 9	☐ 9			☐ 9	☐ 9

85. What is the highest grade or level of school that you have completed?

SREDA

1 ☐ 8th grade or less
2 ☐ Some high school, but did not graduate
3 ☐ High school graduate or GED
4 ☐ Some college or 2-year degree
5 ☐ 4-year college graduate
6 ☐ More than 4-year college degree

86. Are you of Hispanic or Latino origin or descent?

H090071, H09071A-H09071E

(Mark "NO" if not Spanish/Hispanic/Latino.)

See Note 24

A ☐ No, not Spanish, Hispanic, or Latino
B ☐ Yes, Mexican, Mexican American, Chicano
C ☐ Yes, Puerto Rican
D ☐ Yes, Cuban
E ☐ Yes, other Spanish, Hispanic, or Latino

87. What is your race?

(Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRRACEA-SRRACEE

A ☐ White
B ☐ Black or African American
C ☐ American Indian or Alaska Native
D ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)

88. What is your age now?

SRAGE

1 ☐ 18 to 24
2 ☐ 25 to 34
3 ☐ 35 to 44
4 ☐ 45 to 54
5 ☐ 55 to 64
6 ☐ 65 to 74
7 ☐ 75 or older

89. Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.

H09072

1 ☐ Yes, I am now covered by Medicare Part A
2 ☐ No, I am not covered by Medicare Part A

90. Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H09073

1 ☐ Yes, I am now covered by Medicare Part B
2 ☐ No, I am not covered by Medicare Part B

91. Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H09074

1 ☐ Yes, I am now covered by Medicare supplemental insurance
2 ☐ No, I am not covered by Medicare supplemental insurance

92. If you were free to choose between civilian and military facilities for all of your health care, which would you prefer? Would you say …

S09N11

1 ☐ All care from military facilities
2 ☐ All care from civilian facilities
3 ☐ Some care from both military and civilian facilities
4 ☐ Or, no preference

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY! Your generous contribution will greatly aid efforts to improve the health of our military community.

Return your survey in the postage-paid envelope. If the envelope is missing, please send to:

> Office of the Assistant Secretary of Defense (HA)
> TMA/HPAE
> c/o Synovate Survey Processing Center
> PO Box 5030
> Chicago, IL 60680-4138

Questions about the survey?

Email: **survey-dodq2@synovate.net**

Toll-free phone (in the US, Puerto Rico and Canada):
1-877-236-2390, available 24 hours a day
Toll-free fax (in the US and Canada): 1-800-409-7681

International Toll-Free numbers:
Germany: 0 800 182 1532
Great Britain: 008 234 7139
Japan: 0053 11 30 814
South Korea: 003 0813 1286
Mexico: 001 877 238 5171
Philippines: 1 800 1116 2366

When calling or writing, please provide your name, address, and the 8-digit number above your address on the envelope.

Questions about your TRICARE coverage?

For additional information on TRICARE, or if you are not sure about your benefits, or if you don't have a primary care manager; contact the TRICARE Service Center in your region:

> North: 1-877-874-2273
> South: 1-800-444-5445
> West: 1-888-874-9378
> Outside the US: 1-888-777-8343

The website is:
www.tricare.osd.mil/tricareservicecenters

Veterans: Contact the US Department of Veterans Affairs at **1-877-222-VETS**; or go to **www.va.gov**

APPENDIX A

ANNOTATED QUESTIONNAIRE – QUARTER III

Health Care Survey of DoD Beneficiaries

April 2009

YOUR PRIVACY

SURVEY INSTRUCTIONS

Answer <u>all</u> the questions by checking the box to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

☑ Yes ➜ *Go to Question 42*
☐ No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If the envelope is missing, please send to:

> Office of the Assistant Secretary of Defense (Health Affairs)
> TMA/HPAE
> c/o Synovate Survey Processing Center
> PO Box 5030
> Chicago, IL 60680-4138

As an eligible TRICARE beneficiary, <u>please complete this survey even if you did not receive your health care from a military facility</u>.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

1. Are you the person whose name appears on the cover letter? | H09001 |

1 ☐ Yes ➜ *Go to Question 2*
2 ☐ No ➜ Please give this questionnaire to the person addressed on the cover letter.

2. By which of the following health plans are you currently covered? | H09002A-H09002R |

MARK ALL THAT APPLY.

Military Health Plans

A ☐ TRICARE Prime (including TRICARE Prime Remote and TRICARE Overseas)
C ☐ TRICARE Extra or Standard (CHAMPUS)
N ☐ TRICARE Plus
O ☐ TRICARE for Life
P ☐ TRICARE Supplemental Insurance
Q ☐ TRICARE Reserve Select

Other Health Plans

F ☐ Medicare
G ☐ Federal Employees Health Benefit Program (FEHBP)
H ☐ Medicaid
I ☐ A civilian HMO (such as Kaiser)
J ☐ Other civilian health insurance (such as Blue Cross)
K ☐ Uniformed Services Family Health Plan (USFHP)
M ☐ The Veterans Administration (VA)
R ☐ Government health insurance from a country other than the US
L ☐ Not sure

2

3. Which health plan did you use for all or most of your health care in the last 12 months?
MARK ONLY ONE ANSWER.

H09003

See Note 1

- 1 ☐ TRICARE Prime
- 3 ☐ TRICARE Extra or Standard (CHAMPUS)
- 11 ☐ TRICARE Plus
- 12 ☐ TRICARE Reserve Select
- 4 ☐ Medicare (may include TRICARE for Life)
- 5 ☐ Federal Employees Health Benefit Program (FEHBP)
- 6 ☐ Medicaid
- 7 ☐ A civilian HMO (such as Kaiser)
- 8 ☐ Other civilian health insurance (such as Blue Cross)
- 9 ☐ Uniformed Services Family Health Plan (USFHP)
- 10 ☐ The Veterans Administration (VA)
- 13 ☐ Government health insurance from a country other than the US
- -5 ☐ Not sure
- -6 ☐ Did not use any health plan in the last 12 months ➔ *Go to Question 5*

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 3.

4. How many months or years in a row have you been in this health plan?

H09004

See Note 1

- 1 ☐ Less than 6 months
- 2 ☐ 6 up to 12 months
- 3 ☐ 12 up to 24 months
- 4 ☐ 2 up to 5 years
- 5 ☐ 5 up to 10 years
- 6 ☐ 10 or more years

YOUR HEALTH CARE IN THE LAST 12 MONTHS

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

5. In the last 12 months, where did you go most often for your health care?

H09005

MARK ONLY ONE ANSWER.

- 1 ☐ A military facility – This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
- 2 ☐ A civilian facility – This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
- 3 ☐ Uniformed Services Family Health Plan facility (USFHP)
- 4 ☐ Veterans Affairs (VA) clinic or hospital
- 5 ☐ I went to none of the listed types of facilities in the last 12 months

6. In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?

H09006

See Note 2

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 9*

7. In the last 12 months, when you needed care right away, how often did you get care as soon as you thought you needed?

H09007

See Note 2

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

8. In the last 12 months, when you needed care right away for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?

H09008

See Note 2

- 1 ☐ Same day
- 2 ☐ 1 day
- 3 ☐ 2 days
- 4 ☐ 3 days
- 5 ☐ 4-7 days
- 6 ☐ 8-14 days
- 7 ☐ 15 days or longer
- -6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

9. In the last 12 months, not counting the times you needed health care right away, did you make any appointments for your health care at a doctor's office or clinic?

H09009

See Note 3

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 12*

10. In the last 12 months, not counting times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?

H09010

See Note 3

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no appointments in the last 12 months

11. In the last 12 months, not counting the times you needed health care right away, how many days did you usually have to wait between making an appointment and actually seeing a provider?

H09011

See Note 3

- 1 ☐ Same day
- 2 ☐ 1 day
- 3 ☐ 2-3 days
- 4 ☐ 4-7 days
- 5 ☐ 8-14 days
- 6 ☐ 15-30 days
- 7 ☐ 31 days or longer
- -6 ☐ I had no appointments in the last 12 months

12. In the last 12 months, how many times did you go to an **emergency room** to get care for yourself?

H09012

See Note 3A1

- 1 ☐ None ➔ *Go to Question 20*
- 2 ☐ 1
- 3 ☐ 2
- 4 ☐ 3
- 5 ☐ 4
- 6 ☐ 5 to 9
- 7 ☐ 10 or more

13. The last time you visited an emergency room, did you go to the emergency room to treat an accident or injury or for some other health problem?

S09W01

See Note 3A1

- 1 ☐ Accident or injury
- 2 ☐ Some other reason
- -5 ☐ Don't know
- -6 ☐ I had no emergency room visits in the last 12 months ➔ *Go to Question 20*

14. Before going to the emergency room, were you able to contact a doctor or other health professional about this problem?

S09W02   See Notes 3A1 and 3A2

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 16*
- -5 ☐ Don't know ➔ *Go to Question 16*

15. Did the doctor or health professional tell you to go to the emergency room?

- 1 ☐ Yes ➔ *Go to Question 20*
- 2 ☐ No
- -5 ☐ Don't know

S09W03

See Notes 3A1, 3A2, and 3A3

16. Before going to the emergency room or calling for emergency medical assistance, did you try to see or call a doctor or other health professional about this problem?

S09W04   See Notes 3A1 and 3A3

- 1 ☐ Yes
- 2 ☐ No
- -5 ☐ Don't know

17. At the time you went to the emergency room, were there any places other than an emergency room where you could have gone to treat this problem?

S09W05

See Notes 3A1, 3A3, and 3A4

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 19*
- -5 ☐ Don't know ➔ *Go to Question 19*

18. Why did you decide to go to an emergency room **instead of** the alternative?

S09W06

See Notes 3A1, 3A3, and 3A4

MARK ONLY ONE ANSWER.

- 1 ☐ Other choices were closed at the time
- 2 ☐ Other choices were too far away
- 3 ☐ Other choices cost too much
- 4 ☐ Other reason
- -5 ☐ Don't know

19. As a result of this emergency room visit, were you admitted to the hospital for an overnight stay?

S09W07   See Notes 3A1 and 3A3

- 1 ☐ Yes
- 2 ☐ No
- -5 ☐ Don't know

20. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a **doctor's office or clinic** to get health care for yourself?

- 1 ☐ None ➔ *Go to Question 26*
- 2 ☐ 1
- 3 ☐ 2
- 4 ☐ 3
- 5 ☐ 4
- 6 ☐ 5 to 9
- 7 ☐ 10 or more

H09013

See Note 4

21. In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?

H09014

See Note 4

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always

22. Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?

H09015   See Notes 4 and 5

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 25*

23. In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?

H09016

See Notes 4 and 5

- 1 ☐ Definitely yes
- 2 ☐ Somewhat yes
- 3 ☐ Somewhat no
- 4 ☐ Definitely no

4

24. In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?

H09017

See Notes 4 and 5

- 1 ☐ Definitely yes
- 2 ☐ Somewhat yes
- 3 ☐ Somewhat no
- 4 ☐ Definitely no

25. Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?

H09018

See Note 4

- 0 ☐ 0 Worst health care possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best health care possible
- -6 ☐ I had no visits in the last 12 months

YOUR PERSONAL DOCTOR OR NURSE

26. A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

H09019

See Note 6

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 36*

27. In the last 12 months, how many times did you visit your personal doctor to get care for yourself?

- 0 ☐ None ➔ *Go to Question 34*
- 1 ☐ 1

H09020

See Notes 6 and 7

- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5 to 9
- 6 ☐ 10 or more

28. In the last 12 months, how often did your personal doctor listen carefully to you?

H09021

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

29. In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?

H09022

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

30. In the last 12 months, how often did your personal doctor show respect for what you had to say?

H09023

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

31. In the last 12 months, how often did your personal doctor spend enough time with you?

H09024

See Notes 6 and 7

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

32. In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?

H09025   See Notes 6, 7, and 8

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 34*

33. In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

H09026

See Notes 6, 7, and 8

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always

34. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

H09027

See Note 6

- 0 ☐ 0 Worst personal doctor possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best personal doctor possible
- -6 ☐ I don't have a personal doctor

35. Did you have the same personal doctor or nurse <u>before</u> you joined this health plan?

| S09009 | See Notes 6 and 8A1 |

- 1 ☐ Yes ➔ *Go to Question 37*
- 2 ☐ No

36. Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?

| S09010 | See Note 8A1 |

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, <u>do not</u> include dental visits or care you got when you stayed overnight in a hospital.

37. <u>Specialists</u> are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care.

In the last 12 months, did you try to make any appointments to see a specialist?

| H09028 | See Note 9 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 41*

38. In the last 12 months, how often was it easy to get appointments with specialists?

| H09029 | See Note 9 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't need a specialist in the last 12 months

39. How many specialists have you seen in the last 12 months?

- 0 ☐ None ➔ *Go to Question 41*
- 1 ☐ 1 specialist
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5 or more specialists

| H09030 | See Notes 9 and 10 |

40. We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

- 0 ☐ 0 Worst specialist possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best specialist possible
- -6 ☐ I didn't see a specialist in the last 12 months

| H09031 | See Notes 9 and 10 |

41. In general, how would you rate your overall mental or emotional health now?

| S09B01 |

- 1 ☐ Excellent
- 2 ☐ Very good
- 3 ☐ Good
- 4 ☐ Fair
- 5 ☐ Poor

42. In the last 12 months, did you need any treatment or counseling for a <u>personal or family problem</u>?

| S09B02 | See Note 10A1 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 45*

43. In the last 12 months, how much of a problem, if any, was it to get the <u>treatment or counseling</u> you needed through your health plan?

| S09B03 | See Note 10A1 |

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

44. Using <u>any number from 0 to 10</u>, where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?

- 0 ☐ 0 Worst treatment or counseling possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best treatment or counseling possible
- -6 ☐ I had no treatment or counseling in the last 12 months

| S09B04 | See Note 10A1 |

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

45. In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?

H09032

See Note 11

1 ☐ Yes
2 ☐ No ➔ *Go to Question 47*

46. In the last 12 months, how often was it easy to get the care, tests or treatment you thought you needed through your health plan?

H09033

See Note 11

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need care, tests or treatment through my health plan in the last 12 months

47. In the last 12 months, did you look for any information in written materials or on the internet about how your health plan works?

H09034B

See Note 11B

1 ☐ Yes
2 ☐ No ➔ *Go to Question 49*

48. In the last 12 months, how often did the written material or the internet provide the information you needed about how your plan works?

H09034

See Note 11B

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't look for information from my health plan in the last 12 months

49. Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen.

In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?

H09035

See Note 12

1 ☐ Yes
2 ☐ No ➔ *Go to Question 51*

50. In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?

H09036

See Note 12

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need a health care service or equipment from my health plan in the last 12 months

51. In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy.

In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?

H09037

See Note 13

1 ☐ Yes
2 ☐ No ➔ *Go to Question 53*

52. In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?

H09038

See Note 13

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need prescription medications from my health plan in the last 12 months

53. In the last 12 months, did you try to get information or help from your health plan's customer service?

H09039

See Note 14

1 ☐ Yes
2 ☐ No ➔ *Go to Question 56*

54. In the last 12 months, how often did your health plan's customer service give you the information or help you needed?

H09040

See Note 14

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't call my health plan's customer service in the last 12 months

55. In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?

H09041

See Note 14

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't call my health plan's customer service in the last 12 months

56. In the last 12 months, did your health plan give you any forms to fill out?

H09042

See Note 15

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 58*

57. In the last 12 months, how often were the forms from your health plan easy to fill out?

H09043

See Note 15

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I didn't have any experiences with paperwork for my health plan in the last 12 months

58. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?

H09044

See Note 16

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 61*
- -5 ☐ Don't know ➔ *Go to Question 61*

59. In the last 12 months, how often did your health plan handle your claims quickly?

H09045

See Note 16

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

60. In the last 12 months, how often did your health plan handle your claims correctly?

H09046

See Note 16

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

61. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

H09047

- 0 ☐ 0 Worst health plan possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best health plan possible

Think about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3. Please tell me how much you agree or disagree with the following statements.

62. Your health plan cares more about saving money than about getting you the treatment you need.

S09K12

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

63. You feel like you need to double-check everything your health plan does.

S09K13

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

64. You believe your health plan will pay for everything it is supposed to, even really expensive treatments.

S09K14

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

65. If you have a question, you think your health plan will give you a straight answer.

S09K15

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

66. All in all, you have complete trust in your health plan.

S09K16

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

Think about the provider you usually see when you are sick or need advice about your health. Please tell me how much you agree or disagree with the following statements.

67. Sometimes your health care provider cares more about what is convenient for (him/her) than about your medical needs.

S09K01

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

68. Your health care provider is always thoughtful and thorough.

S09K02

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

69. You completely trust your health care provider's decisions about which medical treatments are best for you.

S09K03

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

70. Your health care provider is completely honest in telling you about all of the different treatment options available for your condition.

S09K04

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

71. All in all, you have complete trust in your health care provider.

S09K05

- 1 ☐ Strongly agree
- 2 ☐ Agree
- 3 ☐ Neither agree nor disagree
- 4 ☐ Disagree
- 5 ☐ Strongly disagree

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

72. When did you last have a blood pressure reading?

H09048

- 3 ☐ Less than 12 months ago
- 2 ☐ 1 to 2 years ago
- 1 ☐ More than 2 years ago

73. Do you know if your blood pressure is too high?

H09049

- 1 ☐ Yes, it is too high
- 2 ☐ No, it is not too high
- 3 ☐ Don't know

74. When did you last have a flu shot?

H09050

- 4 ☐ Less than 12 months ago
- 3 ☐ 1-2 years ago
- 2 ☐ More than 2 years ago
- 1 ☐ Never had a flu shot

75. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

H09051

See Note 17

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 80*
- -5 ☐ Don't know ➔ *Go to Question 80*

76. Do you now smoke cigarettes every day, some days or not at all?

H09052   See Note 17

- 4 ☐ Every day ➔ *Go to Question 77*
- 3 ☐ Some days ➔ *Go to Question 77*
- 2 ☐ Not at all ➔ *Go to Question 80*
- -5 ☐ Don't know ➔ *Go to Question 80*

77. In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?

H09053

See Notes 17 and 18

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

78. On how many visits was medication recommended or discussed to assist you with quitting smoking (for example: nicotine gum, patch, nasal spray, inhaler, prescription medication)?

H09054

See Notes 17 and 18

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

79. On how many visits did your doctor or health provider recommend or discuss methods and strategies (other than medication) to assist you with quitting smoking?

- 1 ☐ None
- 2 ☐ 1 visit   H09055
- 3 ☐ 2 to 4 visits   See Notes 17 and 18
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

80. Are you male or female?

H09056

See Note 19A

- 1 ☐ Male ➔ *Go to Question 87*
- 2 ☐ Female

81. When did you last have a Pap smear test?

H09057

See Notes 19A and 19B

- 5 ☐ Within the last 12 months
- 4 ☐ 1 to 3 years ago
- 3 ☐ More than 3 but less than 5 years ago
- 2 ☐ 5 or more years ago
- 1 ☐ Never had a Pap smear test

82. Are you under age 40?

1 ☐ Yes ➜ *Go to Question 84*
2 ☐ No

H09058

See Notes 19A, 19B, and 20

83. When was the last time your breasts were checked by mammography?

H09059 | See Notes 19A, 19B, and 20

5 ☐ Within the last 12 months
4 ☐ 1 to 2 years ago
3 ☐ More than 2 years ago but less than 5 years ago
2 ☐ 5 or more years ago
1 ☐ Never had a mammogram

84. Have you been pregnant in the last 12 months or are you pregnant now?

H09060 | See Notes 19A, 19B, and 21

1 ☐ Yes, I am currently pregnant ➜ *Go to Question 85*
2 ☐ No, I am not currently pregnant, but have been pregnant in the past 12 months ➜ *Go to Question 86*
3 ☐ No, I am not currently pregnant, and have not been pregnant in the past 12 months ➜ *Go to Question 87*

85. In what trimester is your pregnancy?

1 ☐ First trimester (up to 12 weeks after 1st day of last period) ➜ *Go to Question 87*
2 ☐ Second trimester (13th through 27th week)
3 ☐ Third trimester (28th week until delivery)

H09061 | See Notes 19A, 19B, and 21

86. In which trimester did you first receive prenatal care?

4 ☐ First trimester (up to 12 weeks after 1st day of last period)
3 ☐ Second trimester (13th through 27th week)
2 ☐ Third trimester (28th week until delivery)
1 ☐ Did not receive prenatal care

H09062 | See Notes 19A, 19B, and 21

ABOUT YOU

87. In general, how would you rate your overall health now?

H09063

5 ☐ Excellent
4 ☐ Very good
3 ☐ Good
2 ☐ Fair
1 ☐ Poor

88. Are you limited in any way in any activities because of any impairment or health problem?

H09064

1 ☐ Yes
2 ☐ No

89. In the past 12 months, have you seen a doctor or other health provider 3 or more times for the same condition or problem?

H09065

See Note 22

1 ☐ Yes
2 ☐ No ➜ *Go to Question 91*

90. Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.

H09066

See Note 22

1 ☐ Yes
2 ☐ No

91. Do you now need or take medicine prescribed by a doctor? Do not include birth control.

H09067

See Note 23

1 ☐ Yes
2 ☐ No ➜ *Go to Question 93*

92. Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.

H09068

See Note 23

1 ☐ Yes
2 ☐ No

93. Have you or your spouse been deployed to a combat within the past two years?

S09B22, S09B22A-S09B22C | See Note 23A1

1 ☐ Yes, I and/or my spouse have been deployed in the past year
2 ☐ Yes, I and/or my spouse have been deployed within the past two years
3 ☐ No, neither I nor my spouse has been deployed within the past two years

In your life, have you ever had any experience that was so frightening, horrible, or upsetting that, in the past month…

94. You have had nightmares about it or thought about it when you did not want to?

S09B23

1 ☐ Yes
2 ☐ No

95. You tried hard not to think about it or went out of your way to avoid situations that reminded you of it?

S09B24

1 ☐ Yes
2 ☐ No

96. You were constantly on guard, watchful, or easily startled?

S09B25

1 ☐ Yes
2 ☐ No

97. You felt numb or detached from others, activities, or your surroundings?

S09B26

1 ☐ Yes
2 ☐ No

10

98. How tall are you without your shoes on?
Please give your answer in feet and inches.

H09069F, H09069I

Example:

Height			Height	
Feet	Inches		Feet	Inches
5	**6**		_____	_____
☐ 1	☐ 0		☐ 1	☐ 0
☐ 2	☐ 1		☐ 2	☐ 1
☐ 3	☐ 2		☐ 3	☐ 2
☐ 4	☐ 3		☐ 4	☐ 3
☑ 5	☐ 4		☐ 5	☐ 4
☐ 6	☐ 5		☐ 6	☐ 5
☐ 7	☑ 6		☐ 7	☐ 6
	☐ 7			☐ 7
	☐ 8			☐ 8
	☐ 9			☐ 9
	☐ 10			☐ 10
	☐ 11			☐ 11

99. How much do you weigh without your shoes on?
Please give your answer in pounds.

H09070

Example:

Weight				Weight		
Pounds				Pounds		
1	**6**	**0**		_____	_____	_____
☐ 0	☐ 0	☑ 0		☐ 0	☐ 0	☐ 0
☑ 1	☐ 1	☐ 1		☐ 1	☐ 1	☐ 1
☐ 2	☐ 2	☐ 2		☐ 2	☐ 2	☐ 2
☐ 3	☐ 3	☐ 3		☐ 3	☐ 3	☐ 3
	☐ 4	☐ 4			☐ 4	☐ 4
	☐ 5	☐ 5			☐ 5	☐ 5
	☑ 6	☐ 6			☐ 6	☐ 6
	☐ 7	☐ 7			☐ 7	☐ 7
	☐ 8	☐ 8			☐ 8	☐ 8
	☐ 9	☐ 9			☐ 9	☐ 9

100. What is the highest grade or level of school that you have completed?

SREDA

1 ☐ 8th grade or less
2 ☐ Some high school, but did not graduate
3 ☐ High school graduate or GED
4 ☐ Some college or 2-year degree
5 ☐ 4-year college graduate
6 ☐ More than 4-year college degree

101. Are you of Hispanic or Latino origin or descent?

H090071, H09071A-H09071E | See Note 24

(Mark "NO" if not Spanish/Hispanic/Latino.)

A ☐ No, not Spanish, Hispanic, or Latino
B ☐ Yes, Mexican, Mexican American, Chicano
C ☐ Yes, Puerto Rican
D ☐ Yes, Cuban
E ☐ Yes, other Spanish, Hispanic, or Latino

102. What is your race?

(Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRRACEA-SRRACEE

A ☐ White
B ☐ Black or African American
C ☐ American Indian or Alaska Native
D ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)

103. What is your age now?

SRAGE

1 ☐ 18 to 24
2 ☐ 25 to 34
3 ☐ 35 to 44
4 ☐ 45 to 54
5 ☐ 55 to 64
6 ☐ 65 to 74
7 ☐ 75 or older

104. Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.

H09072

1 ☐ Yes, I am now covered by Medicare Part A
2 ☐ No, I am not covered by Medicare Part A

105. Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H09073

1 ☐ Yes, I am now covered by Medicare Part B
2 ☐ No, I am not covered by Medicare Part B

106. Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H09074

1 ☐ Yes, I am now covered by Medicare supplemental insurance
2 ☐ No, I am not covered by Medicare supplemental insurance

11

107. **If you were free to choose between civilian and military facilities for all of your health care, which would you prefer? Would you say …**

S09N11

- 1 ☐ All care from military facilities
- 2 ☐ All care from civilian facilities
- 3 ☐ Some care from both military and civilian facilities
- 4 ☐ Or, no preference

108. **Using a scale of 1 to 5, how much do you agree or disagree with the following statement: In general, I am able to see my provider(s) when needed?**

S09011

- 1 ☐ 1 Strongly disagree
- 2 ☐ 2 Disagree
- 3 ☐ 3 Neither agree nor disagree
- 4 ☐ 4 Agree
- 5 ☐ 5 Strongly agree

109. **For your last visit to a provider's office, how many days did you have to wait between making the appointment and actually seeing a provider?**

S09012

See Note 24A1

- 1 ☐ Same day
- 2 ☐ 1 to 7 days
- 3 ☐ 8 to 30 days
- 4 ☐ 31 or more days
- -5 ☐ I cannot remember my most recent visit ➔ *Go to Question 111*

110. **Using a scale of 1 to 5, how satisfied are you with the length of time you waited for your appointment?**

S09013

See Note 24A1

- 1 ☐ 1 Completely dissatisfied
- 2 ☐ 2 Somewhat dissatisfied
- 3 ☐ 3 Neither satisfied nor dissatisfied
- 4 ☐ 4 Somewhat satisfied
- 5 ☐ 5 Completely satisfied

111. **Using a scale of 1 to 5, how satisfied are you, overall, with the health care you received during your last visit?**

S09014

- 1 ☐ 1 Completely dissatisfied
- 2 ☐ 2 Somewhat dissatisfied
- 3 ☐ 3 Neither satisfied nor dissatisfied
- 4 ☐ 4 Somewhat satisfied
- 5 ☐ 5 Completely satisfied

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY! Your generous contribution will greatly aid efforts to improve the health of our military community.

Return your survey in the postage-paid envelope. If the envelope is missing, please send to:

Office of the Assistant Secretary of Defense (HA)
TMA/HPAE
c/o Synovate Survey Processing Center
PO Box 5030
Chicago, IL 60680-4138

Questions about the survey?

Email: **survey-dodq2@synovate.net**

Toll-free phone (in the US, Puerto Rico and Canada):
1-877-236-2390, available 24 hours a day
Toll-free fax (in the US and Canada): 1-800-409-7681

International Toll-Free numbers:
Germany: 0 800 182 1532
Great Britain: 008 234 7139
Japan: 0053 11 30 814
South Korea: 003 0813 1286
Mexico: 001 877 238 5171
Philippines: 1 800 1116 2366

When calling or writing, please provide your name, address, and the 8-digit number above your address on the envelope.

Questions about your TRICARE coverage?

For additional information on TRICARE, or if you are not sure about your benefits, or if you don't have a primary care manager; contact the TRICARE Service Center in your region:

North: 1-877-874-2273
South: 1-800-444-5445
West: 1-888-874-9378
Outside the US: 1-888-777-8343

The website is:
www.tricare.osd.mil/tricareservicecenters

Veterans: Contact the US Department of Veterans Affairs at **1-877-222-VETS**; or go to **www.va.gov**

APPENDIX A

ANNOTATED QUESTIONNAIRE – QUARTER IV

Health Care Survey of DoD Beneficiaries

July 2009

SURVEY INSTRUCTIONS

Answer <u>all</u> the questions by checking the box to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

    ☑   Yes ➔ *Go to Question 42*
    ☐   No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If the envelope is missing, please send to:

    Office of the Assistant Secretary of Defense (Health Affairs)
    TMA/HPAE
    c/o Synovate Survey Processing Center
    PO Box 5030
    Chicago, IL 60680-4138

SURVEY STARTS HERE

As an eligible TRICARE beneficiary, please complete this survey even if you did not receive your health care from a military facility.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

1. **Are you the person whose name appears on the cover letter?**

    ☐   Yes ➔ *Go to Question 2*
    ☐   No ➔ Please give this questionnaire to the person addressed on the cover letter.

2. **By which of the following health plans are you currently covered?**

MARK ALL THAT APPLY.

Military Health Plans

    ☐   TRICARE Prime (including TRICARE Prime Remote and TRICARE Overseas)
    ☐   TRICARE Extra or Standard (CHAMPUS)
    ☐   TRICARE Plus
    ☐   TRICARE for Life
    ☐   TRICARE Supplemental Insurance
    ☐   TRICARE Reserve Select

Other Health Plans

    ☐   Medicare
    ☐   Federal Employees Health Benefit Program (FEHBP)
    ☐   Medicaid
    ☐   A civilian HMO (such as Kaiser)
    ☐   Other civilian health insurance (such as Blue Cross)
    ☐   Uniformed Services Family Health Plan (USFHP)
    ☐   The Veterans Administration (VA)
    ☐   Government health insurance from a country other than the US
    ☐   Not sure

3. **Which health plan did you use for all or most of your health care in the last 12 months?**

MARK ONLY ONE ANSWER.

    ☐   TRICARE Prime
    ☐   TRICARE Extra or Standard (CHAMPUS)
    ☐   TRICARE Plus
    ☐   TRICARE Reserve Select
    ☐   Medicare (may include TRICARE for Life)
    ☐   Federal Employees Health Benefit Program (FEHBP)
    ☐   Medicaid
    ☐   A civilian HMO (such as Kaiser)
    ☐   Other civilian health insurance (such as Blue Cross)
    ☐   Uniformed Services Family Health Plan (USFHP)
    ☐   The Veterans Administration (VA)
    ☐   Government health insurance from a country other than the US
    ☐   Not sure
    ☐   Did not use any health plan in the last 12 months ➔ *Go to Question 5*

2

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 3.

4. **How many months or years in a row have you been in this health plan?**

   - ☐ Less than 6 months
   - ☐ 6 up to 12 months
   - ☐ 12 up to 24 months
   - ☐ 2 up to 5 years
   - ☐ 5 up to 10 years
   - ☐ 10 or more years

Many beneficiaries who are eligible for TRICARE also have the opportunity to obtain other civilian health insurance through their job or a family member's job, through COBRA, or through retirement coverage from a previous job, or from some other group. COBRA lets beneficiaries pay to keep their coverage temporarily when they leave their job.

5. **Do you currently have the opportunity to obtain civilian health insurance coverage for yourself through some civilian group?**

   - ☐ Yes
   - ☐ No   ➔   *Go to Question 15*

6. **What options do you have for obtaining civilian coverage?**

   MARK ALL THAT APPLY.

   - ☐ Through my current employer
   - ☐ Through COBRA from my previous employer
   - ☐ Through retirement coverage from my previous employer
   - ☐ Through a family member's current employer
   - ☐ Through COBRA from a family member's previous employer
   - ☐ Through retirement coverage from a family member's previous employer
   - ☐ Through another organization
   - ☐ Through a government program
   - ☐ Don't know

7. **Are you alone or are you and others in your household now covered by a civilian policy?**

   - ☐ Yes, I alone
   - ☐ Yes, I and at least one other person in my household are covered
   - ☐ No   ➔   *Go to Question 10*

8. **For your civilian coverage, do you or your family member pay all or part of the insurance premium?**

   - ☐ Yes, I or my family members pay all of the premium
   - ☐ Yes, I or my family members pay part of the premium
   - ☐ No, coverage is available at no cost   ➔   *Go to Question 10*
   - ☐ Don't know

9. **How much per month do you or your family member pay for this coverage?**

   Please write your response in dollars on the lines provided, then check the matching box below in each column. For example, if you pay $456 per month, you would put a "4" on the first line, a "5" on the second line and "6" on the third line, and then check the box next to the "4" in the first column, next to the "5" in the second column and next to the "6" in the third column.

   For example:

Dollars		
4	**5**	**6**
☐0	☐0	☐0
☐1	☐1	☐1
☐2	☐2	☐2
☐3	☐3	☐3
☑4	☐4	☐4
☐5	☑5	☐5
☐6	☐6	☑6
☐7	☐7	☐7
☐8	☐8	☐8
☐9	☐9	☐9

   If you do not know the exact amount, please indicate the approximate amount.

   Your Answer:

Dollars		
☐0	☐0	☐0
☐1	☐1	☐1
☐2	☐2	☐2
☐3	☐3	☐3
☐4	☐4	☐4
☐5	☐5	☐5
☐6	☐6	☐6
☐7	☐7	☐7
☐8	☐8	☐8
☐9	☐9	☐9

   - ☐ $1000 or more
   - ☐ Don't know

10. **Have you used civilian coverage for any of your health care in the past 12 months?**

    - ☐ Yes   ➔   *Go to Question 12*
    - ☐ No

3

11. Why haven't you used civilian coverage?

MARK ALL THAT APPLY.

- ☐ Civilian coverage is not available to me
- ☐ I have a better choice of doctors with TRICARE
- ☐ My personal doctor is only available to me through TRICARE
- ☐ I prefer to use military doctors
- ☐ I prefer military hospitals
- ☐ I want to be sure I can always use military health care
- ☐ I get better customer service with TRICARE
- ☐ Civilian benefits are poor compared to TRICARE
- ☐ I do not want to pay the premium for civilian coverage
- ☐ My employer pays a bonus for not taking employee coverage
- ☐ My family member's employer pays a bonus for not taking employee coverage
- ☐ I pay less for TRICARE than I would for civilian care
- ☐ I have not needed health care
- ☐ Another reason

12. Have you used TRICARE for any health care (except for prescription drugs) in the past 12 months?

- ☐ Yes   ➜   *Go to Question 14*
- ☐ No

13. Why haven't you used TRICARE?

MARK ALL THAT APPLY.

- ☐ I have a better choice of doctors with my civilian plan
- ☐ My personal doctor is not available to me through TRICARE
- ☐ I prefer civilian doctors
- ☐ I prefer civilian hospitals
- ☐ There are no military facilities near me
- ☐ I get better customer service with civilian plans
- ☐ TRICARE benefits are poor compared to my civilian plan
- ☐ It is easier for me to get care through my civilian plan
- ☐ I do not want to pay the premium for TRICARE
- ☐ I pay less for civilian care than I would for TRICARE
- ☐ I have not needed health care
- ☐ Another reason

14. Have dropped civilian coverage in the past 12 months?

- ☐ Yes
- ☐ No

These questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

15. In the last 12 months, where did you go most often for your health care?

MARK ONLY ONE ANSWER.

- ☐ A military facility – This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
- ☐ A civilian facility – This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
- ☐ Uniformed Services Family Health Plan facility (USFHP)
- ☐ Veterans Affairs (VA) clinic or hospital
- ☐ I went to none of the listed types of facilities in the last 12 months

16. In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?

- ☐ Yes
- ☐ No   ➜   *Go to Question 19*

17. In the last 12 months, when you needed care right away, how often did you get care as soon as you thought you needed?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

18. In the last 12 months, when you needed care right away for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?

- ☐ Same day
- ☐ 1 day
- ☐ 2 days
- ☐ 3 days
- ☐ 4-7 days
- ☐ 8-14 days
- ☐ 15 days or longer
- ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

19. In the last 12 months, not counting the times you needed health care right away, did you make any appointments for your health care at a doctor's office or clinic?

- ☐ Yes
- ☐ No   ➜   *Go to Question 22*

20. In the last 12 months, <u>not</u> counting times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I had no appointments in the last 12 months

21. In the last 12 months, not counting the times you needed health care right away, how many <u>days</u> did you usually have to wait between making an <u>appointment</u> and actually <u>seeing a provider</u>?

- ☐ Same day
- ☐ 1 day
- ☐ 2-3 days
- ☐ 4-7 days
- ☐ 8-14 days
- ☐ 15-30 days
- ☐ 31 days or longer
- ☐ I had no appointments in the last 12 months

22. In the last 12 months, how many times did you go to an <u>emergency room</u> to get care for yourself?

- ☐ None
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 to 9
- ☐ 10 or more

23. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a <u>doctor's office or clinic</u> to get health care for yourself?

- ☐ None ➔ *Go to Question 29*
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 to 9
- ☐ 10 or more

24. In the last 12 months, how often did you and a doctor or other health provider talk about specific things you could do to prevent illness?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

25. Choices for your treatment or health care can include choices about medicine, surgery, or other treatment. In the last 12 months, did a doctor or other health provider tell you there was more than one choice for your treatment or health care?

- ☐ Yes
- ☐ No ➔ *Go to Question 28*

26. In the last 12 months, did a doctor or other health provider talk with you about the pros and cons of each choice for your treatment or health care?

- ☐ Definitely yes
- ☐ Somewhat yes
- ☐ Somewhat no
- ☐ Definitely no

27. In the last 12 months, when there was more than one choice for your treatment or health care, did a doctor or other health provider ask which choice you thought was best for you?

- ☐ Definitely yes
- ☐ Somewhat yes
- ☐ Somewhat no
- ☐ Definitely no

28. Using <u>any number from 0 to 10</u>, where **0** is the worst health care possible and **10** is the best health care possible, what number would you use to rate all your health care in the last 12 months?

- ☐ 0 Worst health care possible
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10 Best health care possible
- ☐ I had no visits in the last 12 months

YOUR PERSONAL DOCTOR

29. A personal doctor is the one you would see if you need a checkup, want advice about a health problem, or get sick or hurt. Do you have a personal doctor?

- ☐ Yes
- ☐ No ➔ *Go to Question 39*

30. In the last 12 months, how many times did you visit your personal doctor to get care for yourself?

- ☐ None ➔ *Go to Question 37*
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 to 9
- ☐ 10 or more

31. In the last 12 months, how often did your personal doctor listen carefully to you?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I had no visits in the last 12 months

32. In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I had no visits in the last 12 months

33. In the last 12 months, how often did your personal doctor show respect for what you had to say?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I had no visits in the last 12 months

34. In the last 12 months, how often did your personal doctor spend enough time with you?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I had no visits in the last 12 months

35. In the last 12 months, did you get care from a doctor or other health provider besides your personal doctor?

- ☐ Yes
- ☐ No ➔ *Go to Question 37*

36. In the last 12 months, how often did your personal doctor seem informed and up-to-date about the care you got from these doctors or other health providers?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always

37. Using any number from 0 to 10, where 0 is the worst personal doctor possible and 10 is the best personal doctor possible, what number would you use to rate your personal doctor?

- ☐ 0 Worst personal doctor possible
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10 Best personal doctor possible
- ☐ I don't have a personal doctor

38. Did you have the same personal doctor or nurse <u>before</u> you joined this health plan?

- ☐ Yes ➔ *Go to Question 40*
- ☐ No

39. Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?

- ☐ A big problem
- ☐ A small problem
- ☐ Not a problem

When you answer the next questions, <u>do not</u> include dental visits or care you got when you stayed overnight in a hospital.

40. <u>Specialists</u> are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and other doctors who specialize in one area of health care.

In the last 12 months, did you try to make any appointments to see a specialist?

- ☐ Yes
- ☐ No ➔ *Go to Question 44*

41. In the last 12 months, how often was it easy to get appointments with specialists?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't need a specialist in the last 12 months

42. How many specialists have you seen in the last 12 months?

- ☐ None ➔ *Go to Question 44*
- ☐ 1 specialist
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5 or more specialists

43. We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

- ☐ 0 Worst specialist possible
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10 Best specialist possible
- ☐ I didn't see a specialist in the last 12 months

44. In general, how would you rate your overall mental or emotional health now?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

45. In the last 12 months, did you need any treatment or counseling for a personal or family problem?

- ☐ Yes
- ☐ No ➔ *Go to Question 48*

46. In the last 12 months, how much of a problem, if any, was it to get the treatment or counseling you needed through your health plan?

- ☐ A big problem
- ☐ A small problem
- ☐ Not a problem

47. Using any number from 0 to 10, where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?

- ☐ 0 Worst treatment or counseling possible
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10 Best treatment or counseling possible
- ☐ I had no treatment or counseling in the last 12 months

YOUR HEALTH PLAN

The next questions ask about your experience with your health plan. By your health plan, we mean the health plan you marked in Question 3.

48. In the last 12 months, did you try to get any kind of care, tests, or treatment through your health plan?

- ☐ Yes
- ☐ No ➔ *Go to Question 50*

49. In the last 12 months, how often was it easy to get the care, tests or treatment you thought you needed through your health plan?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't need care, tests or treatment through my health plan in the last 12 months

50. In the last 12 months, did you look for any information in written materials or on the Internet about how your health plan works?

- ☐ Yes
- ☐ No ➔ *Go to Question 52*

51. In the last 12 months, how often did the written material or the Internet provide the information you needed about how your plan works?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't look for information from my health plan in the last 12 months

52. Sometimes people need services or equipment beyond what is provided in a regular or routine office visit, such as care from a specialist, physical therapy, a hearing aid, or oxygen.

In the last 12 months, did you look for information from your health plan on how much you would have to pay for a health care service or equipment?

- ☐ Yes
- ☐ No ➔ *Go to Question 54*

53. In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for a health care service or equipment?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't need a health care service or equipment from my health plan in the last 12 months

54. In some health plans, the amount you pay for a prescription medicine can be different for different medicines, or can be different for prescriptions filled by mail instead of at the pharmacy.

In the last 12 months, did you look for information from your health plan on how much you would have to pay for specific prescription medicines?

- ☐ Yes
- ☐ No ➔ *Go to Question 56*

55. In the last 12 months, how often were you able to find out from your health plan how much you would have to pay for specific prescription medications?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't need prescription medications from my health plan in the last 12 months

56. In the last 12 months, did you try to get information or help from your health plan's customer service?

- ☐ Yes
- ☐ No ➔ *Go to Question 59*

57. In the last 12 months, how often did your health plan's customer service give you the information or help you needed?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't call my health plan's customer service in the last 12 months

58. In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't call my health plan's customer service in the last 12 months

59. In the last 12 months, did your health plan give you any forms to fill out?

- ☐ Yes
- ☐ No ➔ *Go to Question 61*

60. In the last 12 months, how often were the forms from your health plan easy to fill out?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ I didn't have any experiences with paperwork for my health plan in the last 12 months

61. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?

- ☐ Yes
- ☐ No ➔ *Go to Question 64*
- ☐ Don't know ➔ *Go to Question 64*

62. In the last 12 months, how often did your health plan handle your claims quickly?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ Don't know
- ☐ No claims were sent for me in the last 12 months

63. In the last 12 months, how often did your health plan handle your claims correctly?

- ☐ Never
- ☐ Sometimes
- ☐ Usually
- ☐ Always
- ☐ Don't know
- ☐ No claims were sent for me in the last 12 months

64. Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

- ☐ 0   Worst health plan possible
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10   Best health plan possible

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

65. When did you last have a blood pressure reading?

- ☐ Less than 12 months ago
- ☐ 1 to 2 years ago
- ☐ More than 2 years ago

66. Do you know if your blood pressure is too high?

- ☐ Yes, it is too high
- ☐ No, it is not too high
- ☐ Don't know

67. When did you last have a flu shot?

- ☐ Less than 12 months ago
- ☐ 1-2 years ago
- ☐ More than 2 years ago
- ☐ Never had a flu shot

68. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

- ☐ Yes
- ☐ No   ➜ *Go to Question 73*
- ☐ Don't know   ➜ *Go to Question 73*

69. Do you now smoke cigarettes every day, some days or not at all?

- ☐ Every day ➜ *Go to Question 70*
- ☐ Some days ➜ *Go to Question 70*
- ☐ Not at all ➜ *Go to Question 73*
- ☐ Don't know ➜ *Go to Question 73*

70. In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?

- ☐ None
- ☐ 1 visit
- ☐ 2 to 4 visits
- ☐ 5 to 9 visits
- ☐ 10 or more visits
- ☐ I had no visits in the last 12 months

71. On how many visits was medication recommended or discussed to assist you with quitting smoking (for example: nicotine gum, patch, nasal spray, inhaler, prescription medication)?

- ☐ None
- ☐ 1 visit
- ☐ 2 to 4 visits
- ☐ 5 to 9 visits
- ☐ 10 or more visits
- ☐ I had no visits in the last 12 months

72. On how many visits did your doctor or health provider recommend or discuss methods and strategies (other than medication) to assist you with quitting smoking?

- ☐ None
- ☐ 1 visit
- ☐ 2 to 4 visits
- ☐ 5 to 9 visits
- ☐ 10 or more visits
- ☐ I had no visits in the last 12 months

73. Do you currently smoke any tobacco products other than cigarettes, such as cigars, pipes, bidis, kreteks, or any other tobacco product?

Note: Bidis are small, brown, hand-rolled cigarettes from India and other southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.

- ☐ Yes
- ☐ No
- ☐ Don't know

74. Do you currently use <u>smokeless</u> tobacco products such as dip, chewing tobacco, snuff or snus every day, some days, or not at all?

- ☐ Every day
- ☐ Some days
- ☐ Not at all

75. Are you male or female?

- ☐ Male ➜ *Go to Question 82*
- ☐ Female

76. When did you last have a Pap smear test?

- ☐ Within the last 12 months
- ☐ 1 to 3 years ago
- ☐ More than 3 but less than 5 years ago
- ☐ 5 or more years ago
- ☐ Never had a Pap smear test

77. Are you under age 40?

- ☐ Yes ➜ *Go to Question 79*
- ☐ No

78. When was the last time your breasts were checked by mammography?

- ☐ Within the last 12 months
- ☐ 1 to 2 years ago
- ☐ More than 2 years ago but less than 5 years ago
- ☐ 5 or more years ago
- ☐ Never had a mammogram

79. Have you been pregnant in the last 12 months or are you pregnant now?

- ☐ Yes, I am currently pregnant ➜ *Go to Question 80*
- ☐ No, I am not currently pregnant, but have been pregnant in the past 12 months ➜ *Go to Question 81*
- ☐ No, I am not currently pregnant, and have not been pregnant in the past 12 months ➜ *Go to Question 82*

80. In what trimester is your pregnancy?

- ☐ First trimester (up to 12 weeks after 1st day of last period) ➜ *Go to Question 82*
- ☐ Second trimester (13th through 27th week)
- ☐ Third trimester (28th week until delivery)

81. In which trimester did you first receive prenatal care?

- ☐ First trimester (up to 12 weeks after 1st day of last period)
- ☐ Second trimester (13th through 27th week)
- ☐ Third trimester (28th week until delivery)
- ☐ Did not receive prenatal care

ABOUT YOU

82. In general, how would you rate your overall health now?

- ☐ Excellent
- ☐ Very good
- ☐ Good
- ☐ Fair
- ☐ Poor

83. Are you limited in any way in any activities because of any impairment or health problem?

- ☐ Yes
- ☐ No

84. In the past 12 months, have you seen a doctor or other health provider 3 or more times for the same condition or problem?

- ☐ Yes
- ☐ No ➜ *Go to Question 86*

85. Is this a condition or problem that has lasted for at least 3 months? Do not include pregnancy or menopause.

- ☐ Yes
- ☐ No

86. Do you now need or take medicine prescribed by a doctor? Do not include birth control.

- ☐ Yes
- ☐ No ➜ *Go to Question 88*

87. Is this medicine to treat a condition that has lasted for at least 3 months? Do not include pregnancy or menopause.

- ☐ Yes
- ☐ No

88. How tall are you without your shoes on?

Please give your answer in feet and inches.

Example:		Your answer:	
Height		**Height**	
Feet	Inches	Feet	Inches
5	**6**	_____	_____
☐ 1	☐ 0	☐ 1	☐ 0
☐ 2	☐ 1	☐ 2	☐ 1
☐ 3	☐ 2	☐ 3	☐ 2
☐ 4	☐ 3	☐ 4	☐ 3
☑ 5	☐ 4	☐ 5	☐ 4
☐ 6	☐ 5	☐ 6	☐ 5
☐ 7	☑ 6	☐ 7	☐ 6
	☐ 7		☐ 7
	☐ 8		☐ 8
	☐ 9		☐ 9
	☐ 10		☐ 10
	☐ 11		☐ 11

10

89. How much do you weigh without your shoes on?

Please give your answer in pounds.

Example:				Your Answer:		
Weight				Weight		
Pounds				Pounds		
1	**6**	**0**				
☐ 0	☐ 0	☑ 0		☐ 0	☐ 0	☐ 0
☑ 1	☐ 1	☐ 1		☐ 1	☐ 1	☐ 1
☐ 2	☐ 2	☐ 2		☐ 2	☐ 2	☐ 2
☐ 3	☐ 3	☐ 3		☐ 3	☐ 3	☐ 3
	☐ 4	☐ 4			☐ 4	☐ 4
	☐ 5	☐ 5			☐ 5	☐ 5
	☑ 6	☐ 6			☐ 6	☐ 6
	☐ 7	☐ 7			☐ 7	☐ 7
	☐ 8	☐ 8			☐ 8	☐ 8
	☐ 9	☐ 9			☐ 9	☐ 9

90. What is the highest grade or level of school that you have completed?

- ☐ 8th grade or less
- ☐ Some high school, but did not graduate
- ☐ High school graduate or GED
- ☐ Some college or 2-year degree
- ☐ 4-year college graduate
- ☐ More than 4-year college degree

91. Are you of Hispanic or Latino origin or descent?

(Mark "NO" if not Spanish/Hispanic/Latino.)

- ☐ No, not Spanish, Hispanic, or Latino
- ☐ Yes, Mexican, Mexican American, Chicano
- ☐ Yes, Puerto Rican
- ☐ Yes, Cuban
- ☐ Yes, other Spanish, Hispanic, or Latino

92. What is your race?

(Mark ONE OR MORE races to indicate what you consider yourself to be.)

- ☐ White
- ☐ Black or African American
- ☐ American Indian or Alaska Native
- ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
- ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)

93. What is your age now?

- ☐ 18 to 24
- ☐ 25 to 34
- ☐ 35 to 44
- ☐ 45 to 54
- ☐ 55 to 64
- ☐ 65 to 74
- ☐ 75 or older

94. **Currently, are you covered by Medicare Part A?** Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.

- ☐ Yes, I am now covered by Medicare Part A
- ☐ No, I am not covered by Medicare Part A

95. **Currently, are you covered by Medicare Part B?** Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

- ☐ Yes, I am now covered by Medicare Part B
- ☐ No, I am not covered by Medicare Part B

96. **Currently, are you covered by Medicare supplemental insurance?** Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

- ☐ Yes, I am now covered by Medicare supplemental insurance
- ☐ No, I am not covered by Medicare supplemental insurance

97. Overall, how would you rate the current level of stress in your personal life?

- ☐ Much less than usual
- ☐ Less than usual
- ☐ About the same as usual
- ☐ More than usual
- ☐ Much more than usual

The following questions are about issues or problems that may concern you. For each of the following matters, please indicate the extent to which it is currently a concern for you.

98. To what extent are <u>childcare arrangements</u> a concern?

- ☐ Not a concern
- ☐ Small extent
- ☐ Moderate extent
- ☐ Large extent
- ☐ Very large extent

99. To what extent are <u>your child's or children's education</u> a concern?

- ☐ Not a concern
- ☐ Small extent
- ☐ Moderate extent
- ☐ Large extent
- ☐ Very large extent

100. To what extent is <u>communicating with your spouse</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

101. To what extent are <u>managing household expenses</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

102. To what extent are <u>marital problems between you and your spouse</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

103. To what extent are <u>your health problems</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

104. To what extent are <u>the health problems of a child, sibling, parent, or elderly family member</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

105. To what extent are <u>your job or education demands</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

106. To what extent is <u>major financial hardship or bankruptcy in your family</u> a concern?

☐ Not a concern
☐ Small extent
☐ Moderate extent
☐ Large extent
☐ Very large extent

107. Are you the spouse of a member of the uniformed services currently deployed to a combat zone?

☐ Yes
☐ No ➜ *Go to Question 111*

108. Have you sought information about resources to spouses and families of deployed personnel?

☐ Yes
☐ No ➜ *Go to Question 111*

109. How helpful would you say was the information you received in coping with your spouse's deployment?

☐ Very helpful
☐ Somewhat helpful
☐ Not helpful

110. How much of a problem was it for you to find information?

☐ Not a problem
☐ A small problem
☐ A big problem

111. Which of the following best describes your current employment status?

☐ Active Duty
☐ Employed full-time (including self-employed)
☐ Employed part-time (including self-employed)
☐ Unemployed, but looking for work
☐ Unemployed, and not looking for work
☐ Student
☐ Permanently retired

112. What was your family's income before taxes in 2008?

(Include wages before taxes, dividends, interest, social security, pensions, alimony, net business or farm income, and any other money income received by family members age 15 or older)

☐ Less than $10,000
☐ $10,000 to $24,999
☐ $25,000 to $49,999
☐ $50,000 to $74,999
☐ $75,000 to $99,999
☐ $100,000 to $124,999
☐ $125,000 to $149,999
☐ $150,000 to $199,999
☐ $200,000 and above
☐ Don't know

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY! Your generous contribution will greatly aid efforts to improve the health of our military community.
Return your survey in the postage-paid envelope. If the envelope is missing, please send to the address on page 2 of this survey.

PAGE IS INTENTIONALLY LEFT BLANK TO ALLOW FOR DOUBLE-SIDED COPYING

APPENDIX A

ANNOTATED QUESTIONNAIRE – V3 – QUARTER I

Health Care Survey of DoD Beneficiaries

October 2008

YOUR PRIVACY

SURVEY INSTRUCTIONS

Answer <u>all</u> the questions by checking the box to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

☑ Yes ➜ *Go to Question 42*
☐ No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If the envelope is missing, please send to:

> Office of the Assistant Secretary of Defense (Health Affairs)
> TMA/HPAE
> c/o Synovate Survey Processing Center
> PO Box 5030
> Chicago, IL 60680-4138

As an eligible TRICARE beneficiary, <u>please complete this survey even if you did not receive your health care from a military facility</u>.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

1. Are you the person whose name appears on the cover letter?

H09001

   1 ☐ Yes ➜ *Go to Question 2*
   2 ☐ No ➜ Please give this questionnaire to the person addressed on the cover letter.

2. By which of the following health plans are you currently covered?

   MARK ALL THAT APPLY.

   Military Health Plans

H09002A-H09002R

   A ☐ TRICARE Prime (including TRICARE Prime Remote and TRICARE Overseas)
   C ☐ TRICARE Extra or Standard (CHAMPUS)
   N ☐ TRICARE Plus
   O ☐ TRICARE for Life
   P ☐ TRICARE Supplemental Insurance
   Q ☐ TRICARE Reserve Select

   Other Health Plans

   F ☐ Medicare
   G ☐ Federal Employees Health Benefit Program (FEHBP)
   H ☐ Medicaid
   I ☐ A civilian HMO (such as Kaiser)
   J ☐ Other civilian health insurance (such as Blue Cross)
   K ☐ Uniformed Services Family Health Plan (USFHP)
   M ☐ The Veterans Administration (VA)
   R ☐ Government health insurance from a country other than the US
   L ☐ Not sure

3. **Which health plan did you use for all or most of your health care in the last 12 months?**

H09003	See Note 1

MARK ONLY ONE ANSWER.

- 1 ☐ TRICARE Prime
- 3 ☐ TRICARE Extra or Standard (CHAMPUS)
- 11 ☐ TRICARE Plus
- 12 ☐ TRICARE Reserve Select
- 4 ☐ Medicare (may include TRICARE for Life)
- 5 ☐ Federal Employees Health Benefit Program (FEHBP)
- 6 ☐ Medicaid
- 7 ☐ A civilian HMO (such as Kaiser)
- 8 ☐ Other civilian health insurance (such as Blue Cross)
- 9 ☐ Uniformed Services Family Health Plan (USFHP)
- 10 ☐ The Veterans Administration (VA)
- 13 ☐ Government health insurance from a country other than the US
- -5 ☐ Not sure
- -6 ☐ Did not use any health plan in the last 12 months ➔ *Go to Question 5*

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 3.

4. **How many months or years in a row have you been in this health plan?**

H09004
See Note 1

- 1 ☐ Less than 6 months
- 2 ☐ 6 up to 12 months
- 3 ☐ 12 up to 24 months
- 4 ☐ 2 up to 5 years
- 5 ☐ 5 up to 10 years
- 6 ☐ 10 or more years

YOUR PERSONAL DOCTOR OR NURSE

The next questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

5. **A personal doctor or nurse is the health provider who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant. Do you have one person you think of as your personal doctor or nurse?**

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 8*

H09008A
See Note 2_V3

6. **Using any number from 0 to 10, where 0 is the worst personal doctor or nurse possible and 10 is the best personal doctor or nurse possible, what number would you use to rate your personal doctor or nurse?**

- 0 ☐ 0 Worst personal doctor or nurse possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best personal doctor or nurse possible
- -6 ☐ I don't have a personal doctor or nurse

H09009A
See Note 2_V3

7. **Did you have the same personal doctor or nurse before you joined this health plan?**

H09010A
See Note 2_V3

- 1 ☐ Yes ➔ *Go to Question 9*
- 2 ☐ No

8. **Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?**

H09011A
See Note 2_V3

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits.

9. **Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care.**

   In the last 12 months, did you or a doctor think you needed to see a specialist?

H09012A
See Note 3_V3

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 11*

10. **In the last 12 months, how much of a problem, if any, was it to see a specialist that you needed to see?**

H09013A
See Note 3_V3

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem
- -6 ☐ I didn't need a specialist in the last 12 months

3

11. In the last 12 months, did you see a specialist?

> H09014A
> See Note 4_V3

1 ☐ Yes
2 ☐ No ➔ *Go to Question 13*

12. We want to know your rating of the <u>specialist you saw most often</u> in the last 12 months. Using <u>any number from 0 to 10</u>, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

> H09015A
> See Note 4_V3

0 ☐ 0 Worst specialist possible
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10 Best specialist possible
-6 ☐ I didn't see a specialist in the last 12 months

CALLING DOCTORS' OFFICES

13. In the last 12 months, did you call a doctor's office or clinic <u>during regular office hours</u> to get help or advice <u>for yourself</u>?

> H09016A
> See Note 5_V3

1 ☐ Yes
2 ☐ No ➔ *Go to Question 15*

14. In the last 12 months, when you called during regular office hours, how often did you <u>get</u> the help or advice you <u>needed</u>?

> H09017A
> See Note 5_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't call for help or advice during regular office hours in the last 12 months

YOUR HEALTH CARE IN THE LAST 12 MONTHS

15. In the last 12 months, where did you go most often for your health care?

MARK ONLY ONE ANSWER.

> H09005

1 ☐ A military facility – This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
2 ☐ A civilian facility – This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
3 ☐ Uniformed Services Family Health Plan facility (USFHP)
4 ☐ Veterans Affairs (VA) clinic or hospital
5 ☐ I went to none of the listed types of facilities in the last 12 months

16. In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?

> H09018A
> See Note 6_V3

1 ☐ Yes
2 ☐ No ➔ *Go to Question 19*

17. In the last 12 months, when you <u>needed care right away</u> for an illness, injury, or condition, how often did you get care as soon as you wanted?

> H09019A
> See Note 6_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

18. In the last 12 months, when you <u>needed care right away</u> for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?

> H09020A
> See Note 6_V3

1 ☐ Same day
2 ☐ 1 day
3 ☐ 2 days
4 ☐ 3 days
5 ☐ 4-7 days
6 ☐ 8-14 days
7 ☐ 15 days or longer
-6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

19. A <u>health provider</u> could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for health care.

In the last 12 months, not counting the times you needed health care right away, did you make any <u>appointments</u> with a doctor or other health provider for health care?

> H09021A
> See Note 7_V3

1 ☐ Yes
2 ☐ No ➔ *Go to Question 22*

20. In the last 12 months, not counting times you needed health care right away, how often did you get an appointment for health care as soon as you wanted?

> H09022A
> See Note 7_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no appointments in the last 12 months

4

21. In the last 12 months, not counting the times you needed health care right away, how many <u>days</u> did you usually have to wait between making an <u>appointment</u> and actually <u>seeing a provider</u>?

		H09023A
1 ☐	Same day	See Note 7_V3
2 ☐	1 day	
3 ☐	2-3 days	
4 ☐	4-7 days	
5 ☐	8-14 days	
6 ☐	15-30 days	
7 ☐	31 days or longer	
-6 ☐	I had no appointments in the last 12 months	

22. In the last 12 months, how many times did you go to an <u>emergency room</u> to get care for yourself?

H09024A

1 ☐ None
2 ☐ 1
3 ☐ 2
4 ☐ 3
5 ☐ 4
6 ☐ 5 to 9
7 ☐ 10 or more

23. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a <u>doctor's office or clinic</u> to get care for yourself?

		H09025A
1 ☐	None ➔ *Go to Question 36*	See Note 8_V3
2 ☐	1	
3 ☐	2	
4 ☐	3	
5 ☐	4	
6 ☐	5 to 9	
7 ☐	10 or more	

24. In the last 12 months, did you or a doctor believe you needed any care, tests, or treatment?

H09026A

See Notes 8_V3 and 9_V3

1 ☐ Yes
2 ☐ No ➔ *Go to Question 26*

25. In the last 12 months, how much of a problem, if any, was it to get the care, tests or treatment you or a doctor believed necessary?

H09027A

See Notes 8_V3 and 9_V3

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem
-6 ☐ I had no visits in the last 12 months

26. In the last 12 months, did you need approval from your health plan for any care, tests, or treatment?

H09028A	See Notes 8_V3 and 10_V3

1 ☐ Yes
2 ☐ No ➔ *Go to Question 28*

27. In the last 12 months, how much of a problem, if any, were delays in health care while you waited for approval from your health plan?

	H09029A
1 ☐ A big problem	See Notes 8_V3 and 10_V3
2 ☐ A small problem	
3 ☐ Not a problem	
-6 ☐ I had no visits in the last 12 months	

28. In the last 12 months, how often were you taken to the exam room <u>within 15 minutes</u> of your appointment?

		H09030A
1 ☐	Never	See Note 8_V3
2 ☐	Sometimes	
3 ☐	Usually	
4 ☐	Always	
-6 ☐	I had no visits in the last 12 months	

29. In the last 12 months, how often did office staff at a doctor's office or clinic treat you with <u>courtesy and respect</u>?

		H09031A
1 ☐	Never	See Note 8_V3
2 ☐	Sometimes	
3 ☐	Usually	
4 ☐	Always	
-6 ☐	I had no visits in the last 12 months	

30. In the last 12 months, how often were office staff at a doctor's office or clinic as <u>helpful</u> as you thought they should be?

		H09032A
1 ☐	Never	See Note 8_V3
2 ☐	Sometimes	
3 ☐	Usually	
4 ☐	Always	
-6 ☐	I had no visits in the last 12 months	

31. In the last 12 months, how often did doctors or other health providers <u>listen carefully to you</u>?

		H09033A
1 ☐	Never	See Note 8_V3
2 ☐	Sometimes	
3 ☐	Usually	
4 ☐	Always	
-6 ☐	I had no visits in the last 12 months	

32. In the last 12 months, how often did doctors or other health providers <u>explain things</u> in a way you could understand?

		H09034A
1 ☐	Never	See Note 8_V3
2 ☐	Sometimes	
3 ☐	Usually	
4 ☐	Always	
-6 ☐	I had no visits in the last 12 months	

33. In the last 12 months, how often did doctors or other health providers show <u>respect for what you had to say</u>?

| H09035A |
| See Note 8_V3 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

34. In the last 12 months, how often did doctors or other health providers <u>spend enough time</u> with you?

| H09036A |
| See Note 8_V3 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -6 ☐ I had no visits in the last 12 months

35. Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?

| H09037A |
| See Note 8_V3 |

- 0 ☐ 0 Worst health care possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best health care possible
- -6 ☐ I had no visits in the last 12 months

36. In general, how would you rate your overall mental or emotional health now?

| S09B01 |

- 1 ☐ Excellent
- 2 ☐ Very good
- 3 ☐ Good
- 4 ☐ Fair
- 5 ☐ Poor

37. In the last 12 months, did you need any treatment or counseling for a <u>personal or family problem</u>?

| S09B02 |
| See Note 10A1 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 40*

38. In the last 12 months, how much of a problem, if any, was it to get the <u>treatment or counseling</u> you needed through your health plan?

| S09B03 |
| See Note 10A1 |

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

39. Using <u>any number from 0 to 10</u>, where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?

| S09B04 | See Note 10A1 |

- 0 ☐ 0 Worst treatment or counseling possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best treatment or counseling possible
- -6 ☐ I had no treatment or counseling in the last 12 months

YOUR HEALTH PLAN

The next questions ask about your experience with <u>your health plan</u>. By your health plan, we mean the health plan you marked in Question 3.

40. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?

| H09039A | See Note 11_V3 |

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 43*
- -5 ☐ Don't know ➔ *Go to Question 43*

41. In the last 12 months, how often did your health plan handle your claims <u>in a reasonable time</u>?

| H09040A | See Note 11_V3 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

42. In the last 12 months, how often did your health plan handle your claims <u>correctly</u>?

| H09041A | See Note 11_V3 |

- 1 ☐ Never
- 2 ☐ Sometimes
- 3 ☐ Usually
- 4 ☐ Always
- -5 ☐ Don't know
- -6 ☐ No claims were sent for me in the last 12 months

43. In the last 12 months, did you look for any <u>information</u> about how your health plan works <u>in written material or on the Internet</u>?

| H09042A | See Note 12_V3 |

1 ☐   Yes
2 ☐   No   ➜   *Go to Question 45*

44. In the last 12 months, how much of a problem, if any, was it to find or understand this information?

| H09043A | See Note 12_V3 |

1 ☐   A big problem
2 ☐   A small problem
3 ☐   Not a problem
-6 ☐   I didn't look for information from my health plan in the last 12 months

45. In the last 12 months, did you call your health plan's <u>customer service</u> to get information or help?

| H09044A | See Note 13_V3 |

1 ☐   Yes
2 ☐   No   ➜   *Go to Question 47*

46. In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?

| H09045A | See Note 13_V3 |

1 ☐   A big problem
2 ☐   A small problem
3 ☐   Not a problem
-6 ☐   I didn't call my health plan's customer service in the last 12 months

47. In the last 12 months, did you have to fill out any paperwork for your health plan?

| H09046A | See Note 14_V3 |

1 ☐   Yes
2 ☐   No   ➜   *Go to Question 49*

48. In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?

| H09047A | See Note 14_V3 |

1 ☐   A big problem
2 ☐   A small problem
3 ☐   Not a problem
-6 ☐   I didn't have any experiences with paperwork for my health plan in the last 12 months

49. Using <u>any number from 0 to 10</u>, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

| H09048A |

0 ☐   0   Worst health plan possible
1 ☐   1
2 ☐   2
3 ☐   3
4 ☐   4
5 ☐   5
6 ☐   6
7 ☐   7
8 ☐   8
9 ☐   9
10 ☐   10   Best health plan possible

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

50. When did you last have a blood pressure reading?

| H09048 |

3 ☐   Less than 12 months ago
2 ☐   1 to 2 years ago
1 ☐   More than 2 years ago

51. Do you know if your blood pressure is too high?

| H09049 |

1 ☐   Yes, it is too high
2 ☐   No, it is not too high
3 ☐   Don't know

52. When did you last have a flu shot?

| H09050 |

4 ☐   Less than 12 months ago
3 ☐   1-2 years ago
2 ☐   More than 2 years ago
1 ☐   Never had a flu shot

53. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

| H09051 | See Note 15_V3 |

1 ☐   Yes
2 ☐   No   ➜   *Go to Question 59*
-5 ☐   Don't know   ➜   *Go to Question 59*

54. Do you now smoke every day, some days or not at all?

4 ☐   Every day   ➜ *Go to Question 56*
3 ☐   Some days   ➜ *Go to Question 56*
2 ☐   Not at all   ➜ *Go to Question 55*
-5 ☐   Don't know   ➜ *Go to Question 59*

| H09052 | See Note 15_V3 |

55. How long has it been since you quit smoking cigarettes?

- 3 ☐ Less than 12 months ➜ *Go to Question 56*
- 2 ☐ 12 months or more ➜ *Go to Question 59*
- -5 ☐ Don't know ➜ *Go to Question 59*

| H09054A | See Note 15_V3 |

56. In the last 12 months, on how many visits were you advised to quit smoking by a doctor or other health provider in your plan?

| H09053 | See Notes 15_V3 and 18 |

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

57. On how many visits was medication recommended or discussed to assist you with quitting smoking (for example: nicotine gum, patch, nasal spray, inhaler, prescription medication)?

| H09054 | See Notes 15_V3 and 18 |

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

58. On how many visits did your doctor or health provider recommend or discuss methods and strategies (other than medication) to assist you with quitting smoking?

- 1 ☐ None
- 2 ☐ 1 visit

| H09055 | See Notes 15_V3 and 18 |

- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months

59. Have you ever used or tried any smokeless tobacco products such as chewing tobacco or snuff?

| S09D01 | See Note 18A1 |

- 1 ☐ Yes ➜ *Go to Question 60*
- 2 ☐ No ➜ *Go to Question 61*
- -5 ☐ Don't know ➜ *Go to Question 61*

60. Do you currently use chewing tobacco or snuff every day, some days, or not at all?

| S09D02 |
| See Note 18A1 |

- 1 ☐ Every day
- 2 ☐ Some days
- 3 ☐ Not at all
- -5 ☐ Don't know

61. Do you currently use any tobacco products other than cigarettes, such as cigars, pipes, bidis, kreteks, or any other tobacco product?

Note: Bidis are small, brown, hand-rolled cigarettes from India and other southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.

| S09D03 |

- 1 ☐ Yes
- 2 ☐ No
- -5 ☐ Don't know

62. If you use tobacco products other than cigarettes, on how many visits in the last 12 months were you advised to quit by a doctor or other health provider in your plan?

| S09D04 |

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months
- -7 ☐ I do not use other tobacco products

63. Are you male or female?

| H09056 | See Note 19A |

- 1 ☐ Male ➜ *Go to Question 70*
- 2 ☐ Female

64. When did you last have a Pap smear test?

| H09057 |
| See Notes 19A and 19B |

- 5 ☐ Within the last 12 months
- 4 ☐ 1 to 3 years ago
- 3 ☐ More than 3 but less than 5 years ago
- 2 ☐ 5 or more years ago
- 1 ☐ Never had a Pap smear test

65. Are you under age 40?

| H09058 |

- 1 ☐ Yes ➜ *Go to Question 67*
- 2 ☐ No

| See Notes 19A, 19B, and 20 |

66. When was the last time your breasts were checked by mammography?

| H09059 | See Notes 19A, 19B, and 20 |

- 5 ☐ Within the last 12 months
- 4 ☐ 1 to 2 years ago
- 3 ☐ More than 2 years ago but less than 5 years ago
- 2 ☐ 5 or more years ago
- 1 ☐ Never had a mammogram

67. Have you been pregnant in the last 12 months or are you pregnant now?

| H09060 | See Notes 19A, 19B, and 21 |

- 1 ☐ Yes, I am currently pregnant ➜ *Go to Question 68*
- 2 ☐ No, I am not currently pregnant, but have been pregnant in the past 12 months ➜ *Go to Question 69*
- 3 ☐ No, I am not currently pregnant, and have not been pregnant in the past 12 months ➜ *Go to Question 70*

8

68. In what trimester is your pregnancy?

- 1 ☐ First trimester (up to 12 weeks after 1st day of last period) ➔ *Go to Question 70*
- 2 ☐ Second trimester (13th through 27th week)
- 3 ☐ Third trimester (28th week until delivery)

H09061	See Notes 19A, 19B, and 21

69. In which trimester did you first receive prenatal care?

- 4 ☐ First trimester (up to 12 weeks after 1st day of period)
- 3 ☐ Second trimester (13th through 27th week)
- 2 ☐ Third trimester (28th week until delivery)
- 1 ☐ Did not receive prenatal care

H09062	See Notes 19A, 19B, and 21

ABOUT YOU

70. In general, how would you rate <u>your overall health</u> now?

- 5 ☐ Excellent
- 4 ☐ Very good
- 3 ☐ Good
- 2 ☐ Fair
- 1 ☐ Poor

H09063

71. Are you limited in any way in any activities because of any impairment or health problem?

H09064

- 1 ☐ Yes
- 2 ☐ No

72. How tall are you without your shoes on? Please give your answer in feet and inches.

H09069F, H09069I

Example:

Height			Height	
Feet	Inches		Feet	Inches
5	**6**		___	___
☐ 1	☐ 0		☐ 1	☐ 0
☐ 2	☐ 1		☐ 2	☐ 1
☐ 3	☐ 2		☐ 3	☐ 2
☐ 4	☐ 3		☐ 4	☐ 3
☑ 5	☐ 4		☐ 5	☐ 4
☐ 6	☐ 5		☐ 6	☐ 5
☐ 7	☑ 6		☐ 7	☐ 6
	☐ 7			☐ 7
	☐ 8			☐ 8
	☐ 9			☐ 9
	☐ 10			☐ 10
	☐ 11			☐ 11

73. How much do you weigh without your shoes on? Please give your answer in pounds.

H09070

Example:

Weight			Weight		
Pounds			Pounds		
1	**6**	**0**	___	___	___
☐ 0	☐ 0	☑ 0	☐ 0	☐ 0	☐ 0
☑ 1	☐ 1	☐ 1	☐ 1	☐ 1	☐ 1
☐ 2	☐ 2	☐ 2	☐ 2	☐ 2	☐ 2
☐ 3	☐ 3	☐ 3	☐ 3	☐ 3	☐ 3
	☐ 4	☐ 4		☐ 4	☐ 4
	☐ 5	☐ 5		☐ 5	☐ 5
	☑ 6	☐ 6		☐ 6	☐ 6
	☐ 7	☐ 7		☐ 7	☐ 7
	☐ 8	☐ 8		☐ 8	☐ 8
	☐ 9	☐ 9		☐ 9	☐ 9

74. What is the highest grade or level of school that you have completed?

SREDA

1 ☐ 8th grade or less
2 ☐ Some high school, but did not graduate
3 ☐ High school graduate or GED
4 ☐ Some college or 2-year degree
5 ☐ 4-year college graduate
6 ☐ More than 4-year college degree

75. Are you of Hispanic or Latino origin or descent?

H09071, H09071A-H09071E | See Note 24

(Mark "NO" if not Spanish/Hispanic/Latino.)

A ☐ No, not Spanish, Hispanic, or Latino
B ☐ Yes, Mexican, Mexican American, Chicano
C ☐ Yes, Puerto Rican
D ☐ Yes, Cuban
E ☐ Yes, other Spanish, Hispanic, or Latino

76. What is your race?

(Mark ONE OR MORE races to indicate what you consider yourself to be.)

SRRACEA-SRRACEE

A ☐ White
B ☐ Black or African American
C ☐ American Indian or Alaska Native
D ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)

77. What is your age now?

SRAGE

1 ☐ 18 to 24
2 ☐ 25 to 34
3 ☐ 35 to 44
4 ☐ 45 to 54
5 ☐ 55 to 64
6 ☐ 65 to 74
7 ☐ 75 or older

78. Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care.

H09072

1 ☐ Yes, I am now covered by Medicare Part A
2 ☐ No, I am not covered by Medicare Part A

79. Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services.

H09073

1 ☐ Yes, I am now covered by Medicare Part B
2 ☐ No, I am not covered by Medicare Part B

80. Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare.

H09074

1 ☐ Yes, I am now covered by Medicare supplemental insurance
2 ☐ No, I am not covered by Medicare supplemental insurance

81. If you were free to choose between civilian and military facilities for all of your health care, which would you prefer? Would you say …

S09N11

1 ☐ All care from military facilities
2 ☐ All care from civilian facilities
3 ☐ Some care from both military and civilian facilities
4 ☐ Or, no preference

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY! Your generous contribution will greatly aid efforts to improve the health of our military community.

Return your survey in the postage-paid envelope. If the envelope is missing, please send to:

Office of the Assistant Secretary of Defense (HA)
TMA/HPAE
c/o Synovate Survey Processing Center
PO Box 5030
Chicago, IL 60680-4138

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Questions about the survey?

Email: survey-dodq2@synovate.net

Toll-free phone (in the US, Puerto Rico and Canada):
1-877-236-2390, available 24 hours a day
Toll-free fax (in the US and Canada): 1-800-409-7681

International Toll-Free numbers:
Germany: 0 800 182 1532
Great Britain: 008 234 7139
Japan: 0053 11 30 814
South Korea: 003 0813 1286
Mexico: 001 877 238 5171
Philippines: 1 800 1116 2366

When calling or writing, please provide your name, address, and the 8-digit number above your address on the envelope.

Questions about your TRICARE coverage?

For additional information on TRICARE, or if you are not sure about your benefits, or if you don't have a primary care manager; contact the TRICARE Service Center in your region:

North: 1-877-874-2273
South: 1-800-444-5445
West: 1-888-874-9378
Outside the US: 1-888-777-8343

The website is:
www.tricare.osd.mil/tricareservicecenters

Veterans: Contact the US Department of Veterans Affairs at **1-877-222-VETS**; or go to www.va.gov

APPENDIX A

ANNOTATED QUESTIONNAIRE – V3 – QUARTER II

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Health Care Survey of DoD Beneficiaries

January 2009

According to the Privacy Act of 1974 (Public Law 93-579), the Department of Defense is required to inform you of the purposes and use of this survey. Please read it carefully.

Authority: 10 U.S.C., Chapter 55; Section 706, Public Law 102-484; E.O. 9397.

Purpose: This survey helps health policy makers gauge beneficiary satisfaction with the current military health care system and provides valuable input from beneficiaries that will be used to improve the Military Health System.

Routine Uses: None

Disclosure: Voluntary. Failure to respond will not result in any penalty to the respondent. However, maximum participation is encouraged so that data will be as complete and representative as possible.

YOUR PRIVACY

Your participation in this survey effort is very important. Your responses are confidential and your participation is voluntary. The number on the back of this survey is ONLY used to let us know if you returned your survey so we don't have to send you reminders.

This is your opportunity to tell officials of your opinions and experiences with the current military health care system. It is also an opportunity to provide feedback and identify areas where improvements are needed.

The survey processing center removes all identifying information before sending the results to the Department of Defense.

Your information is grouped with others and no individual information is shared. Only group statistics will be compiled and reported. No information about you as an individual will be disclosed.

SURVEY INSTRUCTIONS

Answer <u>all</u> the questions by checking the box to the left of your answer. You are sometimes told to skip over some questions in this survey. When this happens you will see an arrow with a note that tells you what question to answer next, like this:

         ☑   Yes   ➜ *Go to Question 42*
         ☐   No

Please return the completed questionnaire in the enclosed postage-paid envelope within ***seven days***. If the envelope is missing, please send to:

       Office of the Assistant Secretary of Defense (Health Affairs)
       TMA/HPAE
       c/o Synovate Survey Processing Center
       PO Box 5030
       Chicago, IL 60680-4138

SURVEY STARTS HERE

As an eligible TRICARE beneficiary, <u>please complete this survey even if you did not receive your health care from a military facility</u>.

Please recognize that some specific questions about TRICARE benefits may not apply to you, depending on your entitlement and particular TRICARE program.

This survey is about the health care of the person whose name appears on the cover letter. The questionnaire should be completed by that person. If you are not the addressee, please give this survey to that person.

1.   **Are you the person whose name appears on the cover letter?**

                            | H09001 |

    1 ☐   Yes ➜   ***Go to Question 2***
    2 ☐   No ➜   Please give this questionnaire to the person addressed on the cover letter.

2.   **By which of the following health plans are you currently covered?**

                   | H09002A-H09002R |

MARK ALL THAT APPLY.

Military Health Plans

A ☐   TRICARE Prime (including TRICARE Prime Remote and TRICARE Overseas)
C ☐   TRICARE Extra or Standard (CHAMPUS)
N ☐   TRICARE Plus
O ☐   TRICARE for Life
P ☐   TRICARE Supplemental Insurance
Q ☐   TRICARE Reserve Select

Other Health Plans

F ☐   Medicare
G ☐   Federal Employees Health Benefit Program (FEHBP)
H ☐   Medicaid
I ☐   A civilian HMO (such as Kaiser)
J ☐   Other civilian health insurance (such as Blue Cross)
K ☐   Uniformed Services Family Health Plan (USFHP)
M ☐   The Veterans Administration (VA)
R ☐   Government health insurance from a country other than the US
L ☐   Not sure

3. Which health plan did you use for all or most of your health care in the last 12 months?

H09003

See Note 1

MARK ONLY ONE ANSWER.

- 1 ☐ TRICARE Prime
- 3 ☐ TRICARE Extra or Standard (CHAMPUS)
- 11 ☐ TRICARE Plus
- 12 ☐ TRICARE Reserve Select
- 4 ☐ Medicare (may include TRICARE for Life)
- 5 ☐ Federal Employees Health Benefit Program (FEHBP)
- 6 ☐ Medicaid
- 7 ☐ A civilian HMO (such as Kaiser)
- 8 ☐ Other civilian health insurance (such as Blue Cross)
- 9 ☐ Uniformed Services Family Health Plan (USFHP)
- 10 ☐ The Veterans Administration (VA)
- 13 ☐ Government health insurance from a country other than the US
- -5 ☐ Not sure
- -6 ☐ Did not use any health plan in the last 12 months ➔ *Go to Question 5*

For the remainder of this questionnaire, the term health plan refers to the plan you indicated in Question 3.

4. How many months or years in a row have you been in this health plan?

H09004

See Note 1

- 1 ☐ Less than 6 months
- 2 ☐ 6 up to 12 months
- 3 ☐ 12 up to 24 months
- 4 ☐ 2 up to 5 years
- 5 ☐ 5 up to 10 years
- 6 ☐ 10 or more years

YOUR PERSONAL DOCTOR OR NURSE

The next questions ask about your own health care. Do not include care you got when you stayed overnight in a hospital. Do not include the times you went for dental care visits.

5. A personal doctor or nurse is the health provider who knows you best. This can be a general doctor, a specialist doctor, a nurse practitioner, or a physician assistant. Do you have one person you think of as your personal doctor or nurse?

H09008A

See Note 2_V3

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 8*

6. Using any number from 0 to 10, where 0 is the worst personal doctor or nurse possible and 10 is the best personal doctor or nurse possible, what number would you use to rate your personal doctor or nurse?

- 0 ☐ 0 Worst personal doctor or nurse possible
- 1 ☐ 1
- 2 ☐ 2
- 3 ☐ 3
- 4 ☐ 4
- 5 ☐ 5
- 6 ☐ 6
- 7 ☐ 7
- 8 ☐ 8
- 9 ☐ 9
- 10 ☐ 10 Best personal doctor or nurse possible
- -6 ☐ I don't have a personal doctor or nurse

H09009A

See Note 2_V3

7. Did you have the same personal doctor or nurse before you joined this health plan?

H09010A

See Note 2_V3

- 1 ☐ Yes ➔ *Go to Question 9*
- 2 ☐ No

8. Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with?

H09011A

See Note 2_V3

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem

GETTING HEALTH CARE FROM A SPECIALIST

When you answer the next questions, do not include dental visits.

9. Specialists are doctors like surgeons, heart doctors, allergy doctors, skin doctors, and others who specialize in one area of health care.

In the last 12 months, did you or a doctor think you needed to see a specialist?

H09012A

See Note 3_V3

- 1 ☐ Yes
- 2 ☐ No ➔ *Go to Question 11*

10. In the last 12 months, how much of a problem, if any, was it to see a specialist that you needed to see?

H09013A

See Note 3_V3

- 1 ☐ A big problem
- 2 ☐ A small problem
- 3 ☐ Not a problem
- -6 ☐ I didn't need a specialist in the last 12 months

3

11. In the last 12 months, did you see a specialist?

H09014A

See Note 4_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 13*

12. We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?

H09015A

See Note 4_V3

0 ☐ 0 Worst specialist possible
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10 Best specialist possible
-6 ☐ I didn't see a specialist in the last 12 months

CALLING DOCTORS' OFFICES

13. In the last 12 months, did you call a doctor's office or clinic during regular office hours to get help or advice for yourself?

H09016A

See Note 5_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 15*

14. In the last 12 months, when you called during regular office hours, how often did you get the help or advice you needed?

H09017A

See Note 5_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't call for help or advice during regular office hours in the last 12 months

YOUR HEALTH CARE IN THE LAST 12 MONTHS

15. In the last 12 months, where did you go most often for your health care?

H09005

MARK ONLY ONE ANSWER.

1 ☐ A military facility – This includes: Military clinic, Military hospital, PRIMUS clinic, NAVCARE clinic
2 ☐ A civilian facility – This includes: Doctor's office, Clinic, Hospital, Civilian TRICARE contractor
3 ☐ Uniformed Services Family Health Plan facility (USFHP)
4 ☐ Veterans Affairs (VA) clinic or hospital
5 ☐ I went to none of the listed types of facilities in the last 12 months

16. In the last 12 months, did you have an illness, injury, or condition that needed care right away in a clinic, emergency room, or doctor's office?

H09018A

See Note 6_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 19*

17. In the last 12 months, when you needed care right away for an illness, injury, or condition, how often did you get care as soon as you wanted?

H09019A

See Note 6_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

18. In the last 12 months, when you needed care right away for an illness, injury, or condition, how long did you usually have to wait between trying to get care and actually seeing a provider?

H09020A

See Note 6_V3

1 ☐ Same day
2 ☐ 1 day
3 ☐ 2 days
4 ☐ 3 days
5 ☐ 4-7 days
6 ☐ 8-14 days
7 ☐ 15 days or longer
-6 ☐ I didn't need care right away for an illness, injury or condition in the last 12 months

19. A health provider could be a general doctor, a specialist doctor, a nurse practitioner, a physician assistant, a nurse, or anyone else you would see for health care.

In the last 12 months, not counting the times you needed health care right away, did you make any appointments with a doctor or other health provider for health care?

H09021A

See Note 7_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 22*

20. In the last 12 months, not counting times you needed health care right away, how often did you get an appointment for health care as soon as you wanted?

H09022A

See Note 7_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
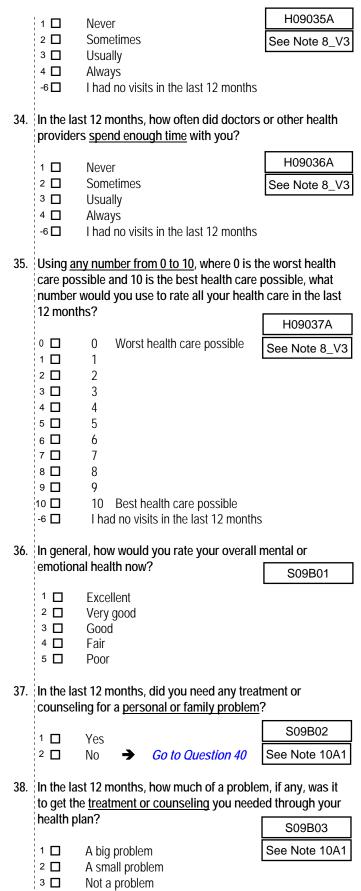-6 ☐ I had no appointments in the last 12 months

21. In the last 12 months, not counting the times you needed health care right away, how many <u>days</u> did you usually have to wait between making an <u>appointment</u> and actually <u>seeing a provider</u>?

H09023A

See Note 7_V3

1 ☐ Same day
2 ☐ 1 day
3 ☐ 2-3 days
4 ☐ 4-7 days
5 ☐ 8-14 days
6 ☐ 15-30 days
7 ☐ 31 days or longer
-6 ☐ I had no appointments in the last 12 months

22. In the last 12 months, how many times did you go to an <u>emergency room</u> to get care for yourself?

H09024A

1 ☐ None
2 ☐ 1
3 ☐ 2
4 ☐ 3
5 ☐ 4
6 ☐ 5 to 9
7 ☐ 10 or more

23. In the last 12 months (not counting times you went to an emergency room), how many times did you go to a <u>doctor's office or clinic</u> to get care for yourself?

H09025A

1 ☐ None → *Go to Question 36* See Note 8_V3
2 ☐ 1
3 ☐ 2
4 ☐ 3
5 ☐ 4
6 ☐ 5 to 9
7 ☐ 10 or more

24. In the last 12 months, did you or a doctor believe you needed any care, tests, or treatment?

H09026A

See Notes 8_V3 and 9_V3

1 ☐ Yes
2 ☐ No → *Go to Question 26*

25. In the last 12 months, how much of a problem, if any, was it to get the care, tests or treatment you or a doctor believed necessary?

H09027A

See Notes 8_V3 and 9_V3

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem
-6 ☐ I had no visits in the last 12 months

26. In the last 12 months, did you need approval from your health plan for any care, tests, or treatment?

H09028A

See Notes 8_V3 and 10_V3

1 ☐ Yes
2 ☐ No → *Go to Question 28*

27. In the last 12 months, how much of a problem, if any, were delays in health care while you waited for approval from your health plan?

H09029A

See Notes 8_V3 and 10_V3

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem
-6 ☐ I had no visits in the last 12 months

28. In the last 12 months, how often were you taken to the exam room <u>within 15 minutes</u> of your appointment?

H09030A

See Note 8_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

29. In the last 12 months, how often did office staff at a doctor's office or clinic treat you with <u>courtesy and respect</u>?

H09031A

See Note 8_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

30. In the last 12 months, how often were office staff at a doctor's office or clinic as <u>helpful</u> as you thought they should be?

H09032A

See Note 8_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

31. In the last 12 months, how often did doctors or other health providers <u>listen carefully to you</u>?

H09033A

See Note 8_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

32. In the last 12 months, how often did doctors or other health providers <u>explain things</u> in a way you could understand?

H09034A

See Note 8_V3

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

33. In the last 12 months, how often did doctors or other health providers show <u>respect for what you had to say</u>?

| H09035A |
| See Note 8_V3 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

34. In the last 12 months, how often did doctors or other health providers <u>spend enough time</u> with you?

| H09036A |
| See Note 8_V3 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-6 ☐ I had no visits in the last 12 months

35. Using <u>any number from 0 to 10</u>, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?

| H09037A |
| See Note 8_V3 |

0 ☐ 0 Worst health care possible
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10 Best health care possible
-6 ☐ I had no visits in the last 12 months

36. In general, how would you rate your overall mental or emotional health now?

| S09B01 |

1 ☐ Excellent
2 ☐ Very good
3 ☐ Good
4 ☐ Fair
5 ☐ Poor

37. In the last 12 months, did you need any treatment or counseling for a <u>personal or family problem</u>?

| S09B02 |
| See Note 10A1 |

1 ☐ Yes
2 ☐ No ➔ *Go to Question 40*

38. In the last 12 months, how much of a problem, if any, was it to get the <u>treatment or counseling</u> you needed through your health plan?

| S09B03 |
| See Note 10A1 |

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem

39. Using <u>any number from 0 to 10</u>, where 0 is the worst treatment or counseling possible and 10 is the best treatment or counseling possible, what number would you use to rate your treatment or counseling in the last 12 months?

| S09B04 |
| See Note 10A1 |

0 ☐ 0 Worst treatment or counseling possible
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10 Best treatment or counseling possible
-6 ☐ I had no treatment or counseling in the last 12 months

YOUR HEALTH PLAN

The next questions ask about your experience with <u>your health plan</u>. By your health plan, we mean the health plan you marked in Question 3.

40. Claims are sent to a health plan for payment. You may send in the claims yourself, or doctors, hospitals, or others may do this for you. In the last 12 months, did you or anyone else send in any claims to your health plan?

| H09039A |
| See Note 11_V3 |

1 ☐ Yes
2 ☐ No ➔ *Go to Question 43*
-5 ☐ Don't know ➔ *Go to Question 43*

41. In the last 12 months, how often did your health plan handle your claims <u>in a reasonable time</u>?

| H09040A |
| See Note 11_V3 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-5 ☐ Don't know
-6 ☐ No claims were sent for me in the last 12 months

42. In the last 12 months, how often did your health plan handle your claims <u>correctly</u>?

| H09041A |
| See Note 11_V3 |

1 ☐ Never
2 ☐ Sometimes
3 ☐ Usually
4 ☐ Always
-5 ☐ Don't know
-6 ☐ No claims were sent for me in the last 12 months

43. In the last 12 months, did you look for any <u>information</u> about how your health plan works <u>in written material or on the Internet</u>?

H09042A

See Note 12_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 45*

44. In the last 12 months, how much of a problem, if any, was it to find or understand this information?

H09043A

See Note 12_V3

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem
-6 ☐ I didn't look for information from my health plan in the last 12 months

45. In the last 12 months, did you call your health plan's <u>customer service</u> to get information or help?

H09044A

See Note 13_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 47*

46. In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?

H09045A

See Note 13_V3

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem
-6 ☐ I didn't call my health plan's customer service in the last 12 months

47. In the last 12 months, did you have to fill out any paperwork for your health plan?

H09046A

See Note 14_V3

1 ☐ Yes
2 ☐ No ➜ *Go to Question 49*

48. In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan?

H09047A

See Note 14_V3

1 ☐ A big problem
2 ☐ A small problem
3 ☐ Not a problem
-6 ☐ I didn't have any experiences with paperwork for my health plan in the last 12 months

49. Using <u>any number from 0 to 10</u>, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?

H09048A

0 ☐ 0 Worst health plan possible
1 ☐ 1
2 ☐ 2
3 ☐ 3
4 ☐ 4
5 ☐ 5
6 ☐ 6
7 ☐ 7
8 ☐ 8
9 ☐ 9
10 ☐ 10 Best health plan possible

PREVENTIVE CARE

Preventive care is medical care you receive that is intended to maintain your good health or prevent a future medical problem. A physical or blood pressure screening are examples of preventive care.

50. When did you last have a blood pressure reading?

H09048

3 ☐ Less than 12 months ago
2 ☐ 1 to 2 years ago
1 ☐ More than 2 years ago

51. Do you know if your blood pressure is too high?

H09049

1 ☐ Yes, it is too high
2 ☐ No, it is not too high
3 ☐ Don't know

52. For a blood stool test, a person uses a home kit and puts some stool on a card. The card is sent to the doctor's office or lab. Have you ever had this test using a home kit?

S09Q01   See Note 16A1

1 ☐ Yes
2 ☐ No ➜ *Go to Question 54*
-5 ☐ Don't know ➜ *Go to Question 54*

53. How long has it been since you had your last blood stool test using a home kit?

S09Q02   See Note 16A1

1 ☐ Less than 12 months ago
2 ☐ At least one year but less than 2 years ago
3 ☐ At least 2 years but less than 5 years ago
4 ☐ 5 or more years ago
-6 ☐ Never had a blood stool test
-5 ☐ Don't know

7

54. Sigmoidoscopy and colonoscopy are exams in which a lighted tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?

S09Q03   See Note 16A2

- 1 ☐   Yes
- 2 ☐   No   ➔ **_Go to Question 57_**
- -5 ☐   Don't know   ➔ **_Go to Question 57_**

55. A sigmoidoscopy is limited to the lower part of the colon and is usually done without anesthesia. How long has it been since you had your last sigmoidoscopy?

S09Q04   See Note 16A2

- 1 ☐   Less than 12 months ago
- 2 ☐   At least one year but less than 2 years ago
- 3 ☐   At least 2 years but less than 5 years ago
- 4 ☐   5 or more years ago
- -6 ☐   Never had a sigmoidoscopy
- -5 ☐   Don't know

56. For a colonoscopy the entire colon is examined and patients usually receive medication in their veins to relax them and make them feel sleepy. How long has it been since you had your last colonoscopy?

S09Q05   See Note 16A2

- 1 ☐   Less than 12 months ago
- 2 ☐   At least one year but less than 2 years ago
- 3 ☐   At least 2 years but less than 5 years ago
- 4 ☐   At least 5 years but less than 10 years ago
- 5 ☐   10 or more years ago
- -6 ☐   Never had a colonoscopy
- -5 ☐   Don't know

57. When did you last have a flu shot?

H09050

- 4 ☐   Less than 12 months ago
- 3 ☐   1-2 years ago
- 2 ☐   More than 2 years ago
- 1 ☐   Never had a flu shot

58. Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?

H09051   See Notes 15_V3

- 1 ☐   Yes
- 2 ☐   No   ➔ **_Go to Question 64_**
- -5 ☐   Don't know   ➔ **_Go to Question 64_**

59. Do you now smoke every day, some days or not at all?

H09052   See Notes 15_V3

- 4 ☐   Every day   ➔ **_Go to Question 61_**
- 3 ☐   Some days   ➔ **_Go to Question 61_**
- 2 ☐   Not at all   ➔ **_Go to Question 60_**
- -5 ☐   Don't know   ➔ **_Go to Question 64_**

60. How long has it been since you <u>quit smoking</u> cigarettes?

H09054A   See Notes 15_V3

- 3 ☐   Less than 12 months   ➔ **_Go to Question 61_**
- 2 ☐   12 months or more   ➔ **_Go to Question 64_**
- -5 ☐   Don't know   ➔ **_Go to Question 64_**

61. In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?

H09053   See Note 15_V3

- 1 ☐   None
- 2 ☐   1 visit
- 3 ☐   2 to 4 visits
- 4 ☐   5 to 9 visits
- 5 ☐   10 or more visits
- -6 ☐   I had no visits in the last 12 months

62. On how many visits was medication recommended or discussed to assist you with quitting smoking (for example: nicotine gum, patch, nasal spray, inhaler, prescription medication)?

H09054   See Note 15_V3

- 1 ☐   None
- 2 ☐   1 visit
- 3 ☐   2 to 4 visits
- 4 ☐   5 to 9 visits
- 5 ☐   10 or more visits
- -6 ☐   I had no visits in the last 12 months

63. On how many visits did your doctor or health provider recommend or discuss methods and strategies (other than medication) to assist you with quitting smoking?

H09055   See Note 15_V3

- 1 ☐   None
- 2 ☐   1 visit
- 3 ☐   2 to 4 visits
- 4 ☐   5 to 9 visits
- 5 ☐   10 or more visits
- -6 ☐   I had no visits in the last 12 months

64. Do you currently smoke any tobacco products other than cigarettes, such as cigars, pipes, bidis, kreteks, or any other tobacco product?

Note: Bidis are small, brown, hand-rolled cigarettes from India and other southeast Asian countries. Kreteks are clove cigarettes made in Indonesia that contain clove extract and tobacco.

S09D03

- 1 ☐   Yes
- 2 ☐   No
- -5 ☐   Don't know

65. Have you ever used or tried any <u>smokeless</u> tobacco products such as dip, chewing tobacco, snuff or snus?

S09D01   See Note 18A1

- 1 ☐   Yes   ➔ **_Go to Question 66_**
- 2 ☐   No   ➔ **_Go to Question 68_**
- -5 ☐   Don't know   ➔ **_Go to Question 68_**

66. Do you currently use <u>smokeless</u> tobacco products such as dip, chewing tobacco, snuff or snus every day, some days, or not at all?

S09D02   See Note 18A1

- 1 ☐   Every day
- 2 ☐   Some days
- 3 ☐   Not at all   ➔ **_Go to Question 68_**

67. In a typical week, how much dip, chewing tobacco, snuff or snus do you use?

S09D05

See Note 18A1

- 3 ☐ Two or more cans or pouches a week
- 2 ☐ One to two cans or pouches a week
- 1 ☐ Less than one can or pouch a week
- -5 ☐ Don't know

68. If you use tobacco products other than cigarettes, including smokeless tobacco, cigars, pipes, bidis or kreteks, on how many visits in the last 12 months were you advised to quit by a doctor or other health provider in your plan?

S09D04

- 1 ☐ None
- 2 ☐ 1 visit
- 3 ☐ 2 to 4 visits
- 4 ☐ 5 to 9 visits
- 5 ☐ 10 or more visits
- -6 ☐ I had no visits in the last 12 months
- -7 ☐ I do not use other tobacco products

69. Are you male or female?

H09056

See Notes 19A

- 1 ☐ Male ➔ *Go to Question 76*
- 2 ☐ Female

70. When did you last have a Pap smear test?

H09057

See Notes 19A and 19B

- 5 ☐ Within the last 12 months
- 4 ☐ 1 to 3 years ago
- 3 ☐ More than 3 but less than 5 years ago
- 2 ☐ 5 or more years ago
- 1 ☐ Never had a Pap smear test

71. Are you under age 40?

H09058

See Notes 19A, 19B and 20

- 1 ☐ Yes ➔ *Go to Question 73*
- 2 ☐ No

72. When was the last time your breasts were checked by mammography?

H09059

See Notes 19A, 19B and 20

- 5 ☐ Within the last 12 months
- 4 ☐ 1 to 2 years ago
- 3 ☐ More than 2 years ago but less than 5 years ago
- 2 ☐ 5 or more years ago
- 1 ☐ Never had a mammogram

73. Have you been pregnant in the last 12 months or are you pregnant now?

H09060

See Notes 19A, 19B and 21

- 1 ☐ Yes, I am currently pregnant ➔ *Go to Question 74*
- 2 ☐ No, I am not currently pregnant, but have been pregnant in the past 12 months ➔ *Go to Question 75*
- 3 ☐ No, I am not currently pregnant, and have not been pregnant in the past 12 months ➔ *Go to Question 76*

74. In what trimester is your pregnancy?

H09061

See Notes 19A, 19B and 21

- 1 ☐ First trimester (up to 12 weeks after 1st day of last period) ➔ *Go to Question 76*
- 2 ☐ Second trimester (13th through 27th week)
- 3 ☐ Third trimester (28th week until delivery)

75. In which trimester did you first receive prenatal care?

H09062

See Notes 19A, 19B and 21

- 4 ☐ First trimester (up to 12 weeks after 1st day of last period)
- 3 ☐ Second trimester (13th through 27th week)
- 2 ☐ Third trimester (28th week until delivery)
- 1 ☐ Did not receive prenatal care

ABOUT YOU

76. In general, how would you rate your overall health now?

H09063

- 5 ☐ Excellent
- 4 ☐ Very good
- 3 ☐ Good
- 2 ☐ Fair
- 1 ☐ Poor

77. Are you limited in any way in any activities because of any impairment or health problem?

H09064

- 1 ☐ Yes
- 2 ☐ No

78. How tall are you without your shoes on? Please give your answer in feet and inches.

H09069F, H09069I

Example:

Height	
Feet	Inches
5	**6**
☐ 1	☐ 0
☐ 2	☐ 1
☐ 3	☐ 2
☐ 4	☐ 3
☑ 5	☐ 4
☐ 6	☐ 5
☐ 7	☑ 6
	☐ 7
	☐ 8
	☐ 9
	☐ 10
	☐ 11

Height	
Feet	Inches
☐ 1	☐ 0
☐ 2	☐ 1
☐ 3	☐ 2
☐ 4	☐ 3
☐ 5	☐ 4
☐ 6	☐ 5
☐ 7	☐ 6
	☐ 7
	☐ 8
	☐ 9
	☐ 10
	☐ 11

79. How much do you weigh without your shoes on? Please give your answer in pounds. H09070

Example:

Weight				Weight		
Pounds				Pounds		
1	**6**	**0**				
☐ 0	☐ 0	☑ 0		☐ 0	☐ 0	☐ 0
☑ 1	☐ 1	☐ 1		☐ 1	☐ 1	☐ 1
☐ 2	☐ 2	☐ 2		☐ 2	☐ 2	☐ 2
☐ 3	☐ 3	☐ 3		☐ 3	☐ 3	☐ 3
	☐ 4	☐ 4			☐ 4	☐ 4
	☐ 5	☐ 5			☐ 5	☐ 5
	☑ 6	☐ 6			☐ 6	☐ 6
	☐ 7	☐ 7			☐ 7	☐ 7
	☐ 8	☐ 8			☐ 8	☐ 8
	☐ 9	☐ 9			☐ 9	☐ 9

80. What is the highest grade or level of school that you have completed? SREDA

1 ☐ 8th grade or less
2 ☐ Some high school, but did not graduate
3 ☐ High school graduate or GED
4 ☐ Some college or 2-year degree
5 ☐ 4-year college graduate
6 ☐ More than 4-year college degree

81. Are you of Hispanic or Latino origin or descent? H090071, H09071A-H09071E

(Mark "NO" if not Spanish/Hispanic/Latino.) See Note 24

A ☐ No, not Spanish, Hispanic, or Latino
B ☐ Yes, Mexican, Mexican American, Chicano
C ☐ Yes, Puerto Rican
D ☐ Yes, Cuban
E ☐ Yes, other Spanish, Hispanic, or Latino

82. What is your race?

(Mark ONE OR MORE races to indicate what you consider yourself to be.) SRRACEA-SRRACEE

A ☐ White
B ☐ Black or African American
C ☐ American Indian or Alaska Native
D ☐ Asian (e.g., Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese)
E ☐ Native Hawaiian or other Pacific Islander (e.g., Samoan, Guamanian, or Chamorro)

83. What is your age now? SRAGE

1 ☐ 18 to 24
2 ☐ 25 to 34
3 ☐ 35 to 44
4 ☐ 45 to 54
5 ☐ 55 to 64
6 ☐ 65 to 74
7 ☐ 75 or older

84. Currently, are you covered by Medicare Part A? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part A helps pay for inpatient hospital care. H09072

1 ☐ Yes, I am now covered by Medicare Part A
2 ☐ No, I am not covered by Medicare Part A

85. Currently, are you covered by Medicare Part B? Medicare is the federal health insurance program for people aged 65 or older and for certain persons with disabilities. Medicare Part B helps pay for doctor's services, outpatient hospital services, and certain other services. H09073

1 ☐ Yes, I am now covered by Medicare Part B
2 ☐ No, I am not covered by Medicare Part B

86. Currently, are you covered by Medicare supplemental insurance? Medicare supplemental insurance, also called Medigap or MediSup, is usually obtained from private insurance companies and covers some of the costs not paid for by Medicare. H09074

1 ☐ Yes, I am now covered by Medicare supplemental insurance
2 ☐ No, I am not covered by Medicare supplemental insurance

87. If you were free to choose between civilian and military facilities for all of your health care, which would you prefer? Would you say … S09N11

1 ☐ All care from military facilities
2 ☐ All care from civilian facilities
3 ☐ Some care from both military and civilian facilities
4 ☐ Or, no preference

THANK YOU FOR TAKING THE TIME TO COMPLETE THE SURVEY! Your generous contribution will greatly aid efforts to improve the health of our military community.

Return your survey in the postage-paid envelope. If the envelope is missing, please send to:

Office of the Assistant Secretary of Defense (HA)
TMA/HPAE
c/o Synovate Survey Processing Center
PO Box 5030
Chicago, IL 60680-4138

10

Questions about the survey?

Email: **survey-dodq2@synovate.net**

Toll-free phone (in the US, Puerto Rico and Canada):
1-877-236-2390, available 24 hours a day
Toll-free fax (in the US and Canada): 1-800-409-7681

International Toll-Free numbers:
Germany: 0 800 182 1532
Great Britain: 008 234 7139
Japan: 0053 11 30 814
South Korea: 003 0813 1286
Mexico: 001 877 238 5171
Philippines: 1 800 1116 2366

When calling or writing, please provide your name, address, and the 8-digit number above your address on the envelope.

Questions about your TRICARE coverage?

For additional information on TRICARE, or if you are not sure about your benefits, or if you don't have a primary care manager; contact the TRICARE Service Center in your region:

North: 1-877-874-2273
South: 1-800-444-5445
West: 1-888-874-9378
Outside the US: 1-888-777-8343

The website is:
www.tricare.osd.mil/tricareservicecenters

Veterans: Contact the US Department of Veterans Affairs at
1-877-222-VETS; or go to **www.va.gov**

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER I

2009 HEALTH CARE SURVEY OF DOD BENEFICIARIES (HCSDB)
CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of "Don't know" or "not sure"
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values '.' and incomplete grids '.I' are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H09003, H09004

N1	H09003 is:	H09004 is:	H09003 is coded as:	H09004 is coded as:	*
1	1-13, health plan, -5, not sure	Marked or missing response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H09006, H09007, H09008

N2	H09006 is:	H09007-H09008 are:	H09006 is coded as:	H09007-H09008 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked, and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked, and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H09007-H09008 are all missing.

Definition of "Blank or NA" in Coding Table for Note 2:
All of the following are true: H09007-H09008 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 2:
H09007-H09008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA".

Coding Table for Note 3:
H09009, H09010, H09011

N3	H09009 is:	H09010-H09011 are:	H09009 is coded as:	H09010-H09011 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H09010-H09011 are all missing.

Definition of "Blank or NA" in Coding Table for Note 3:
All of the following are true: H09010-H09011 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 3:
H09010-H09011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA".

Coding Table for Note 4:
H09013, H09014-H09018

N4	H09013 is:	H09014-H09018 are:	H09013 is coded as:	H09014-H09018 are coded as:	*
1	1: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
2	2-7, or missing response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2-7	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	
5	Missing response	At least one is "marked"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H09014-H09018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H09014-H09018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA".

Coding Table for Note 5:
H09015, H09016-H09017

N5	H09015 is:	H09016 is:	H09017 is:	H09015 is coded as:	H09016 is coded as:	H09017 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No, missing	1: Definitely yes 2: Somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No, missing	3: Somewhat no, 4: Definitely no, or missing	1: Definitely yes 2: Somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: Definitely no, or missing	3: Somewhat no, 4: Definitely no, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	3: Definitely no, 4: Somewhat no, or missing	3: Definitely no, 4: Somewhat no, or missing	Stands as original value	Stands as original value	Stands as original value	

*   Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H09019, H09020-H09027

N6	H09019 is:	H09020-H09027 are:	H09019 is coded as:	H09020-H09027 are coded as:	*
1	1: Yes	Any value	Stands as original value	Stand as original value	
2	2: No, missing	At least one is "marked"	1: Yes	Stand as original value	B
3	2: No	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"All are blank" or "Blank or NA"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 6:
Responses to H09020-H09027 are all missing.

Definition of "blank or NA" in Coding Table for Note 6:
All of the following are true: H09020-H09027 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 6:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA".

Coding Table for Note 7:
H09020, H09021-H09026

N7	H09020 is:	H09021-H09025 are:	H09020 is coded as:	H09021-H09025 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stand as original value	
2	0: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	1-6, or missing response	"Blank or NA"	0: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
4	1-6, or missing response	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H09021-H09025 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
All of the following are true: H09021-H09025 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA".

Coding Table for Note 8:
H09025, H09026

N8	H09025 is:	H09026 is:	H09025 is coded as:	H09026 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	Stands as original value	
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing response	Stands as original value	.N, valid skip	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H09028, H09029-H09031

N9	H09028 is:	H09029-H09031 are:	H09028 is coded as:	H09029-H09031 are coded as:	*
1	1: Yes	Any value	Stands as original value	Stand as original value	
2	2: No, missing	At least one is "marked"	1: Yes	Stand as original value	B
3	2: No	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H09029-H09031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H09029 and H09031 are a combination of not applicable (-6) or missing. H09030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA".

Coding Table for Note 10:
H09030, H09031

N10	H09030 is:	H09031 is:	H09030 is coded as:	H09031 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1,2,3,4,5	0-10, or missing response	Stands as original value	Stands as original value	
3	1,2,3,4,5 or missing response	-6: didn't need to see a specialist	0: None	.C, question should be skipped	B F
4	0: none	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	0-10, or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10A1:
S09B02, S09B03-S09B04

N10A1	S09B02 is:	S09B03-S09B04 are:	S09B02 is coded as:	S09B03-S09B04 are coded as:	*
1	1: yes	Any value	Stands as original value	., missing if –6; stand as original value otherwise	F
2	2: no or missing response	At least one is "marked"	1: yes	Stand as original value	B
3	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10A1:
Responses to S09B03-S09B04 are all missing or unmarked.

Definition of "Blank or NA" in Coding Table for Note 10A1:
All of the following are true: S09B03-S09B04 are a combination of not applicable (-6) or missing or unmarked.

Definition of "marked" in Coding Table for Note 10A1:
Any pattern of marks outside the definitions "all are blank" or "Blank or NA".

Coding Table for Note 11:
H09032, H09033

N11	H09032 is:	H09033 is:	H09032 is coded as:	H09033 is coded as:	*
1	1: yes	1, 2, 3, 4, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need care, tests, or treatment	2: No	.C, question should be skipped	B F
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need care, tests, or treatment	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H09035, H09036

N12	H09035 is:	H09036 is:	H09035 is coded as:	H09036 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need service or equipment	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need service or equipment, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H09037, H09038

N13	H09037 is:	H09038 is:	H09037 is coded as:	H09038 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't look for cost of prescription meds	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't look for cost of prescription meds, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H09039, H09040-H09041

N14	H09039 is:	H09040-H09041 are:	H09039 is coded as:	H09040-H09041 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: Yes or missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: No or missing response	At least one is "marked"	1: Yes	., missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 14:
Responses to H09040-H09041 are all missing.

Definition of "blank or NA" in Coding Table for Note 14:
All of the following are true: H09040-H09041 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 14:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA".

Coding Table for Note 15:
H09042, H09043

N15	H09042 is:	H09043 is:	H09042 is coded as:	H09043 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't receive forms to fill out	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't receive forms to fill out, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 16:
H09044, H09045-H09046

N16	H09044 is:	H09045-H09046 are:	H09044 is coded as:	H09045-H09046 are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: yes, -5: don't know, missing	"Blank or NA" or "NA or don't know"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
4	2: no	"Blank or NA" or "blank or don't know" or "NA or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

*   Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 16:
Responses to H09045-H09046 are all missing.

Definition of "blank or NA" in Coding Table for Note 16:
Responses to H09045-H09046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 16:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 17:
H09051--H09055

N17	H09051 is:	H09052 is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09053- H09055 are coded as:	*
1	1: ever smoked	3 or 4: still smoke	Any value	Stands as original value	Stands as original value	Stand as original value	
2	1: ever smoked	2: quit, -5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	1: ever smoked	Missing response	Any value	Stands as original value	Stands as original value	Stand as original value	
4	2: never, -5: don't know, missing response	3 or 4: still smoke	Any value	1: ever smoked	Stands as original value	Stand as original value	B
5	2: never or -5: don't know	2: quit, -5: don't know, or missing response	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
6	Missing response	2: quit, missing response	2-5: some visits	1: ever smoked	Stands as original value	Stand as original value	B
7	Missing response	2: quit, missing response	1: None, -6: No visits, or missing	Stands as original value	Stands as original value	Stands as original value	
8	Missing response	-5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F

*   Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18:
H09053, H09054-H09055

N18	H09053 is:	H09054 is:	H09055 is:	H09053 is coded as:	H09054 is coded as:	H09055 is coded as:	*
1	.N: No doctor visits	Any value	Any value	Stands as original value	.C, question should be skipped if marked; .N: No doctor visits, otherwise	.C, question should be skipped if marked; .N: No doctor visits, otherwise	F
2	.C: Should be skipped	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	1: None	.N: No doctor visits	.N: No doctor visits	Stands as original value	1: None	1: None	F
4	1: None	.N: No doctor visits	1-5, missing	Stands as original value	1: None	Stands as original value	F
5	1: None	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	1: None	F
6	2-5: Visits, missing	.N: No doctor visits	.N: No doctor visits	Stands as original value	.:Missing	.:Missing	F
7	2-5: Visits, missing	.N: No doctor visits	1-5, missing	Stands as original value	.:Missing	Stands as original value	F
8	2-5: Visits, missing	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	.:Missing	F
9	1-5: 0 or more visits	More visits than indicated by H09053	More visits than indicated by H09053	Stands as original value	H09053	H09053	F
10	1-5: 0 or more visits	More visits than indicated by H09053	Same or fewer visits than indicated by H09053 or missing	Stands as original value	H09053	Stands as original value	F
11	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	More visits than indicated by H09053	Stands as original value	Stands as original value	H09053	F
12	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	Same or fewer visits than indicated by H09053 or missing	Stands as original value	Stands as original value	Stands as original value	
13	Missing	1-5, missing	1-5, missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18A1:
S09D01, S09D02

N18A1	S09D01 is:	S09D02 is:	S09D01 is coded as:	S09D02 is coded as:	*
1	1: Yes	1, 2, 3:Marked, -5: don't know	Stands as original value	Stands as original value	
2	1: Yes	Missing	Stands as original value	Stands as original value	
3	2: No, -5: don't know, missing	1:Every day, 2:Some days	1:Yes	Stands as original value	B
4	2: No, -5: don't know	3:Not at all, -5:don't know, missing	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
5	Missing	3:Not at all, -5:don't know, missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 19:

Note 19 (Part a)
H09056, SEX, XSEXA, H09057-H09062

N19A	H09056 is :	SEX is:	H09057--H09062 are:	XSEXA is coded as:
1	Missing response	F	Any marked	2, female
2	Missing response	F	All missing	2, female
3	Missing response	M	Any marked	1, male
4	Missing response	M	All missing	1, male
5	Missing response	Z, missing	Any marked	2, female
6	Missing response	Z	All missing	., missing value
7	Missing response	Missing	All missing	., missing value
8	1, male	Any value	All missing	1, male
9	1, male	F	Any marked	2, female
10	1, male	M, Z, or missing	Any marked	1, male
11	2, female	Any value	Any marked	2, female
12	2, female	M	All missing	1, male
13	2, female	F, Z, or missing	All missing	2, female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H09056), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H09057 - H09062

N19B	XSEXA is:	H09057--H09062 are:	H09057--H09062 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H09057--H09062 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 20
XSEXA, AGE, H09058, H09059

N20	XSEXA is:	AGE is:	H09058 is:	H09059 is:	H09058 is coded as:	H09059 is coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: under 40	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F B
6	2: Female	>=40	Missing	Missing	2: >= 40	Stands as original value	B
7	2: Female	Missing	Missing	Missing	Stands as original value	Stands as original value	
8	Missing	Any value	Missing	Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H09060, H09061, H09062

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	1: first trimester	Any value	Stands as original value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	1: pregnant now	2: second trimester	2: third trimester	Stands as original value	Stands as original value	.: missing value	F
4	2: Female	1: pregnant now	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: pregnant now	3: third trimester, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: pregnant in last 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
7	2: Female	3: not pregnant in past 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
8	2: Female	Missing response	1: first trimester	Any value	1: pregnant now	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 21 continued:

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
9	2: Female	Missing response	2: second trimester	2: third trimester	1: pregnant now	Stands as original value	.: missing value	B F
10	2: Female	Missing response	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	1: pregnant now	Stands as original value	Stands as original value	B
11	2: Female	Missing response	3: third trimester	Any value	1: pregnant now	Stands as original value	Stands as original value	B
12	2: Female	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	Missing	Missing response	Marked, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 22:
H09065, H09066

N22	H09065 is:	H09066 is:	H09065 is coded as:	H09066 is coded as:	*
1	1: yes	Any value	Stands as original value	Stand as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stand as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H09067, H09068

N23	H09067 is:	H09068 is:	H09067 is coded as:	H09068 is coded as:	*
1	1: yes	Any value	Stands as original value	Stand as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stand as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H09071, H09071A-H09071E

N24	H09071A is:	H09071B is:	H09071C is:	H09071D is:	H09071E is:	H09071 is coded as:	H09071A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2_V3:
H09008A, H09009A, H09010A, H09011A

N2_V3	H09008A is:	H09009A is:	H09010A is:	H09011A is:	H09008A is coded as:	H09009A is coded as:	H09010A is coded as:	H09011A is coded as:	*
1	1: yes or missing response	-6: Don't have a personal Dr	Any value	Any value	2: no	.C, question should be skipped	.N, valid skip if missing; .C, question should be skipped, if marked	Stands as original value	B F
2	1: yes	0-10 or missing response	1: yes	1-3	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
3	1: yes	0-10 or missing response	Missing response	1-3	Stands as original value	Stands as original value	2: no	Stands as original value	B
4	1: yes	0-10 or missing response	1: yes	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	F
5	1: yes	0-10 or missing response	2: no	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
6	1: yes	0-10 or missing response	Missing response	Missing response	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
7	2: no or missing response	0-10	1: yes	1-3	1: yes	Stands as original value	Stands as original value	.C, question should be skipped	B F
8	2: no or missing response	0-10	Missing response	1-3	1: yes	Stands as original value	Stands as original value	Stands as original value	B
9	2: no or missing response	0-10	Missing response	Missing response	1: yes	Stands as original value	Stands as original value	Stands as original value	B
10	2: no	Missing response	1: yes	1-3	Stands as original value	.N, valid skip if missing	.C, question should be skipped	Stands as original value	F
11	2: no	-6: Don't have a personal Dr	Any value	Any value	Stands as original value	.C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	B F

Coding Table for Note 2_V3 continued:

N2_V3	H09008A is:	H09009A is:	H09010A is:	H09011A is:	H09008A is coded as:	H09009A is coded as:	H09010A is coded as:	H09011A is coded as:	*
12	2: no or missing response	0-10 or missing	1: yes	Missing	1: yes	Stands as original value	Stands as original value	.N, valid skip	B F
13	2: no or missing response	0-10 or missing	2: no	Any value	1: yes	Stands as original value	Stands as original value	Stands as original value	B
14	2: no	Missing response	Missing response	Any value	Stands as original value	.N, valid skip	.N, valid skip	Stands as original value	F
15	Missing response	Missing response	1: yes	1-3	1: yes	Stands as original value	Stands as original value	.C, question should be skipped	B F
16	Missing response	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_V3:
H09012A, H09013A

N3_V3	H09012A is:	H09013A is:	H09012A is coded as:	H09013A is coded as:	*
1	1: yes	1, 2, 3, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need to see a specialist	2: No	.C, question should be skipped	B F
3	2: no or missing response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4_V3:
H09014A, H09015A

N4_V3	H09014A is:	H09015A is:	H09014A is coded as:	H09015A is coded as:	*
1	1: yes	0-10, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need to see a specialist	2: No	.C, question should be skipped	B F
3	2: no or missing response	0-10	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 5_V3:
H09016A, H09017A

N5_V3	H09016A is:	H09017A is:	H09016A is coded as:	H09017A is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: no calls	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: no calls or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6_V3:
H09018A, H09019A, H09020A

N6_V3	H09018A is:	H09019A-H09020A are:	H09018A is coded as:	H09019A-H09020A are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked, and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked, and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 6_V3:
Responses to H09019A-H09020A are all missing.

Definition of "Blank or NA" in Coding Table for Note 6_V3:
All of the following are true: H09019A-H09020A are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 6_V3:
H09019A-H09020A have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 6_V3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA".

Coding Table for Note 7_V3:
H09021A, H09022A, H09023A

N7_V3	H09021A is:	H09022A-H09023A are:	H09021A is coded as:	H09022A-H09023A are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7_V3:
Responses to H09022A-H09023A are all missing.

Definition of "Blank or NA" in Coding Table for Note 7_V3:
All of the following are true: H09022A-H09023A are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 7_V3:
H09022A-H09023A have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 7_V3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA".

Coding Table for Note 8_V3:
H09025A, H09026A-H09037A

N8_V3	H09025A is:	H09026A-H09037A are:	H09025A is coded as:	H09026A-H09037A are coded as:	*
1	1: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
2	2-7, or missing response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2-7	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	
5	Missing response	At least one is "marked"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 8_V3:
Responses to H09026A-H09037A are all missing.

Definition of "blank or NA" in Coding Table for Note 8_V3:
All of the following are true: H09026A-H09037A are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 8_V3:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA".

Coding Table for Note 9_V3:
H09026A, H09027A

N9_V3	H09026A is:	H09027A is:	H09026A is coded as:	H09027A is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
3	1: yes, missing response	-6: No visits	2: no	.C, question should be skipped	B F
4	2: no, missing response	1-3: how much of a problem	1: yes	Stands as original value	B
5	2: no	-6: No visits or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10_V3:
H09028A, H09029A

N10_V3	H09028A is:	H09029A is:	H09028A is coded as:	H09029A is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
3	1: yes, missing response	-6: No visits	2: no	.C, question should be skipped	B F
4	2: no, missing response	1-3: how much of a problem	1: yes	Stands as original value	B
5	2: no	-6: No visits or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 11_V3:
H09039A, H09040A-H09041A

N11_V3	H09039A is:	H09040A-H09041A are:	H09039A is coded as:	H09040A-H09041A are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: yes, -5: don't know, missing	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked" or "blank or don't know"	1: yes	., missing if –6; stand as original value otherwise	B F
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"All are blank"	Stands as original value	.N, valid skip if missing	F
6	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are all missing.

Definition of "blank or NA" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "marked" in Coding Table for Note 11_V3:
Any pattern of marks outside the definitions "all are blank," "blank or NA," or "blank or don't know."

Table for Note 12_V3:
H09042A, H09043A

N12_V3	H09042A is:	H09043A is:	H09042A is coded as:	H09043A is coded as:	*
1	1: yes	1, 2, 3: how much of a problem, missing response	Stands as original value	Stands as original value	
2	1: yes, or missing response	-6: didn't look for information in health plan	2: no	.C, question should be skipped	B F
3	2: no, or missing response	1, 2, 3: how much of a problem	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't look for information in health plan	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13_V3:
H09044A, H09045A

N13_V3	H09044A is:	H09045A is:	H09044A is coded as:	H09045A is coded as:	*
1	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
2	1: yes, missing response	-6: didn't call health plan	2: no	.C, question should be skipped	B F
3	2: no, missing response	1-3: how much of a problem	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't call health plan	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14_V3:
H09046A, H09047A

N14_V3	H09046A is:	H09047A is:	H09046A is coded as:	H09047A is coded as:	*
1	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't have any experience	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-3: how much of a problem	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't have any experience	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15_V3:
H09051--H09055

N15_V3	H09051 is:	H09052 is:	H09054A is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09054A is coded as:	H09053-H09055 are coded as:	*
1	1: ever smoked	3 or 4: still smoke	Any value	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	Stand as original value	F
2	1: ever smoked	2: quit	2: quit >1 year ago or –5: don't know	Any value	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	1: ever smoked	2: quit	3: quit <1 year ago, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	Stand as original value	
4	1: ever smoked	-5: don't know, missing response	2: quit >1 year ago	Any value	Stands as original value	2: quit	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F B
5	1: ever smoked	-5: don't know, missing response	3: quit <1 year ago	Any value	Stands as original value	2: quit	Stands as original value	Stand as original value	F B
6	1: ever smoked	-5:don't know	-5: don't know, missing response	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
7	1: ever smoked	Missing response	-5: don't know	Any value	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
8	1: ever smoked	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15_V3 continued:

N15_V3	H09051 is:	H09052 is:	H09054A is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09054A is coded as:	H09053-H09055 are coded as:	*
9	2: never, -5: don't know, missing response	3 or 4: still smoke	Any value	Any value	1: ever smoked	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	Stand as original value	B F
10	2: never or -5: don't know	2: quit, -5: don't know, or missing response	Any value	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
11	Missing response	2: quit	Missing response	2-5: some visits	1: ever smoked	Stands as original value	3: quit <1 year ago	Stand as original value	B
12	Missing response	2: quit, missing response	2: quit >1 year ago, -5: don't know	Any value	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
13	Missing response	2: quit, missing response	3: quit <1 year ago, missing response	2-5: some visits	1: ever smoked	Stands as original value	Stands as original value	Stand as original value	B
14	Missing response	2: quit, missing response	3: quit <1 year ago, missing response	1: none, -6: no visits, missing response	Stands as original value	Stands as original value	Stands as original value	Stand as original value	
15	Missing response	-5: don't know	Any value	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F

* Indication of backward coding (B) or forward coding (F).

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER II

2009 HEALTH CARE SURVEY OF DOD BENEFICIARIES (HCSDB)
CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of "Don't know" or "not sure"
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values '.' and incomplete grids '.I' are encoded prior to implementation of the Coding Scheme Notes (see below).

This document contains coding scheme logic for notes pertaining to both Version 3 (V3) and Version 4 (V4) questionnaires. There are two groups of notes: one for V3 (notes are named with an _V3) and one for V4 (with some V4 notes being common to both versions). The numbers for the V4 notes shown here (1-24) refer to the note numbers used in the V4 coding scheme program. The variables listed throughout are the **final** variable names for both versions, and correspond to the variables used in the V4 coding scheme program. While the logic used for the common notes in the V3 code is identical to that employed in the V4 code, the variable names in the programming code will refer to the original V3 variables or "MPR variable name" shown in the crosswalk. The table below describes the relationship between the common notes and variable names used in this document with the note numbers and variable names used in the V3 coding scheme program.

Note Number in Coding Scheme Document	Variables in Coding Scheme Document (final variable names)	Note Number in V3 Coding Scheme Program	Variable Names in V3 Coding Scheme Program (V3 MPR variable names)
1	H09003-4	1	H09006A-7A
10A1	S09B02-4	10A1	S09B02A-4A
16A1	S09Q01-2	14A1	S09Q01A-2A
16A2	S09Q03-5	14A2	S09Q03A-5A
18	H09053-55	16	H09055A-57A
18A1	S09D01-2,5	16A1	S09D01A-2A,5A
19A	H09056-62	17A	H09058A-61A,63A-65A
19B	H09057-62	17B	H09059A-61A,63A-65A
20	H09058-59	18	H09060A-61A
21	H09060-62	19	H09063A-65A
24	H09071,71A-71E	20	H09070A,H09070AA-70EA

For the V3 notes, again, the variables referenced in this document are the **final** variable names, but in this case (because the variables are specific to V3) the final variable names are the same as the MPR V3 variable names. In other words, they all have the "A" suffixes.

The one exception is N15_V3 which is identical to N17 except for the inclusion of variable H09054A (for which there is no corresponding V4 variable). The other variables for N15_V3 directly correspond to a V4 variable, but the inclusion of H09054A necessitated a note specific to V3. In this document the variables for N15_V3 are referenced based on their final variable names (H09051-H09055 and H09054A), but in the V3 coding scheme program the original V3 MPR variable names (H09052A-H09057A) are used.

Coding Table for Note 1:
H09003, H09004

N1	H09003 is:	H09004 is:	H09003 is coded as:	H09004 is coded as:	*
1	1-13, health plan, -5, not sure	Marked or missing response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H09006, H09007, H09008

N2	H09006 is:	H09007-H09008 are:	H09006 is coded as:	H09007-H09008 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked, and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked, and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H09007-H09008 are all missing.

Definition of "Blank or NA" in Coding Table for Note 2:
All of the following are true: H09007-H09008 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 2:
H09007-H09008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 3:
H09009, H09010, H09011

N3	H09009 is:	H09010-H09011 are:	H09009 is coded as:	H09010-H09011 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H09010-H09011 are all missing.

Definition of "Blank or NA" in Coding Table for Note 3:
All of the following are true: H09010-H09011 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 3:
H09010-H09011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 4:
H09013, H09014-H09018

N4	H09013 is:	H09014-H09018 are:	H09013 is coded as:	H09014-H09018 are coded as:	*
1	1: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
2	2-7, or missing response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2-7	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	
5	Missing response	At least one is "marked"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H09014-H09018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H09014-H09018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 5:
H09015, H09016-H09017

N5	H09015 is:	H09016 is:	H09017 is:	H09015 is coded as:	H09016 is coded as:	H09017 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No, missing	1: Definitely yes 2: Somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No, missing	3: Somewhat no, 4: Definitely no, or missing	1: Definitely yes 2: Somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: Definitely no, or missing	3: Somewhat no, 4: Definitely no, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	3: Definitely no, 4: Somewhat no, or missing	3: Definitely no, 4: Somewhat no, or missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H09019, H09020-H09027

N6	H09019 is:	H09020 is:	H09021-H09026 are:	H09027 is:	H09019 is coded as:	H09020 is coded as:	H09021-H09026 are coded as:	H09027 are coded as:	*
1	1: Yes	Any value	Any value	Any value	Stands as original value	Stands as original value	Stand as original value	., missing if –6; stands as original value otherwise	F
2	2: No, missing	0: none	"All are blank" or "Blank or NA"		2: No	.C, question should be skipped	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip	B F
3	2: No, missing	>0: marked	"All are blank" or "Blank or NA"		1: Yes	Stands as original value	Stand as original value	., missing if –6; stands as original value otherwise	B F
4	2: No, missing	Any value	At least one is "marked"		1: Yes	Stands as original value	Stands as original value	., missing if –6; stands as original value otherwise	B F
5	2: No	Any value	"All are blank" or "Blank or NA"		Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"All are blank" or "Blank or NA"			Stands as original value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 6:
Responses to H09020-H09027 are all missing.

Definition of "blank or NA" in Coding Table for Note 6:
All of the following are true: H09020-H09027 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 6:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 7:
H09020, H09021-H09026

N7	H09020 is:	H09021-H09026 are:	H09020 is coded as:	H09021-H09026 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stand as original value	
2	0: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	1-6, or missing response	"Blank or NA"	0: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
4	1-6, or missing response	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H09021-H09026 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
All of the following are true: H09021-H09026 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 8:
H09025, H09026

N8	H09025 is:	H09026 is:	H09025 is coded as:	H09026 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	Stands as original value	
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing response	Stands as original value	.N, valid skip	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H09028, H09029-H09031

N9	H09028 is:	H09029-H09031 are:	H09028 is coded as:	H09029 is coded as:	H09030-H09031 are coded as:	*
1	1: Yes	Any value	Stands as original value	., missing if –6; stands as original value otherwise	Stand as original value	F
2	2: No, missing	At least one is "marked"	1: Yes	., missing if –6; stands as original value otherwise	Stand as original value	B
3	2: No	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H09029-H09031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H09029 and H09031 are a combination of not applicable (-6) or missing. H09030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 10:
H09030, H09031

N10	H09030 is:	H09031 is:	H09030 is coded as:	H09031 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1,2,3,4,5	0-10, or missing response	Stands as original value	Stands as original value	
3	1,2,3,4,5 or missing response	-6: didn't need to see a specialist	0: None	.C, question should be skipped	B F
4	0: none	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	0-10, or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10A1:
S09B02, S09B03-S09B04

N10A1	S09B02 is:	S09B03-S09B04 are:	S09B02 is coded as:	S09B03-S09B04 are coded as:	*
1	1: yes	Any value	Stands as original value	., missing if –6; stand as original value otherwise	F
2	2: no or missing response	At least one is "marked"	1: yes	Stand as original value	B
3	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10A1:
Responses to S09B03-S09B04 are all missing or unmarked.

Definition of "Blank or NA" in Coding Table for Note 10A1:
All of the following are true: S09B03-S09B04 are a combination of not applicable (-6) or missing or unmarked.

Definition of "marked" in Coding Table for Note 10A1:
Any pattern of marks outside the definition "all are blank"

Coding Table for Note 11:
H09032, H09033

N11	H09032 is:	H09033 is:	H09032 is coded as:	H09033 is coded as:	*
1	1: yes	1, 2, 3, 4, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need care, tests, or treatment	2: No	.C, question should be skipped	B F
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need care, tests, or treatment	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H09035, H09036

N12	H09035 is:	H09036 is:	H09035 is coded as:	H09036 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need service or equipment	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need service or equipment, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H09037, H09038

N13	H09037 is:	H09038 is:	H09037 is coded as:	H09038 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need prescription meds	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need prescription meds, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H09039, H09040-H09041

N14	H09039 is:	H09040-H09041 are:	H09039 is coded as:	H09040-H09041 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: Yes or missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: No or missing response	At least one is "marked"	1: Yes	., missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 14:
Responses to H09040-H09041 are all missing.

Definition of "blank or NA" in Coding Table for Note 14:
All of the following are true: H09040-H09041 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 14:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 15:
H09042, H09043

N15	H09042 is:	H09043 is:	H09042 is coded as:	H09043 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't receive forms to fill out	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't receive forms to fill out, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 16:
H09044, H09045-H09046

N16	H09044 is:	H09045-H09046 are:	H09044 is coded as:	H09045-H09046 are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: yes, -5: don't know, missing	"Blank or NA" or "NA or don't know"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
4	2: no	"Blank or NA" or "blank or don't know" or "NA or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

*   Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 16:
Responses to H09045-H09046 are all missing.

Definition of "blank or NA" in Coding Table for Note 16:
Responses to H09045-H09046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 16:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 16A1:
S09Q01, S09Q02

N16A1	S09Q01 is:	S09Q02 is:	S09Q01 is coded as:	S09Q02 is coded as:	*
1	1: yes	1-4: time since last blood stool test, missing response, or -5: don't know	Stands as original value	Stands as original value	
2	1: yes, or missing response	-6: never had a blood stool test	2: No	.C question should be skipped	B F
3	2: no, -5: don't know, or missing response	1-4: time since last blood stool test	1: yes	Stands as original value	B
4	2: no, -5: don't know	Missing, –6: never had a blood stool test, or -5: don't know	Stands as original value	.N, valid skip if missing, .C, question should be skipped if marked	F
5	Missing response	Missing response, or -5: don't know	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 16A2:
S09Q03, S09Q04-S09Q05

N16A2	S09Q03 is:	S09Q04-S09Q05 are:	S09Q03 Is coded as:	S09Q04-S09Q05 are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	Stand as original value	F
2	1: yes, -5: don't know, missing	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked" or "blank or don't know"	1: yes	Stand as original value	B F
4	2: no	"Blank or NA" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"All are blank"	Stands as original value	.N, valid skip if missing	F
6	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 16A2:
Responses to S09Q04-S09Q05 are all missing.

Definition of "blank or NA" in Coding Table for Note 16A2:
Responses to S09Q04-S09Q05 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 16A2:
Responses to S09Q04-S09Q05 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "marked" in Coding Table for Note 16A2:
Any pattern of marks outside the definitions "all are blank," "blank or NA," or "blank or don't know."

Coding Table for Note 17:
H09051--H09055

N17	H09051 is:	H09052 is:	H09053- H09055 are:	H09051 is coded as:	H09052 is coded as:	H09053- H09055 are coded as:	*
1	1: ever smoked	3 or 4: still smoke	Any value	Stands as original value	Stands as original value	Stand as original value	
2	1: ever smoked	2: quit, -5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	1: ever smoked	Missing response	Any value	Stands as original value	Stands as original value	Stand as original value	
4	2: never, -5: don't know, missing response	3 or 4: still smoke	Any value	1: ever smoked	Stands as original value	Stand as original value	B
5	2: never or -5: don't know	2: quit, -5: don't know, or missing response	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
6	Missing response	2: quit, missing response	Any = 2- 5: some visits	1: ever smoked	Stands as original value	Stand as original value	B
7	Missing response	2: quit, missing response	All = 1: None, -6: No visits, or missing	Stands as original value	Stands as original value	Stands as original value	
8	Missing response	-5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18:
H09053, H09054-H09055

N18	H09053 is:	H09054 is:	H09055 is:	H09053 is coded as:	H09054 is coded as:	H09055 is coded as:	*
1	.N: No doctor visits	Any value	Any value	Stands as original value	.C, question should be skipped if marked; .N: No doctor visits, otherwise	.C, question should be skipped if marked; .N: No doctor visits, otherwise	F
2	.C: Should be skipped	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	1: None	.N: No doctor visits	.N: No doctor visits	Stands as original value	1: None	1: None	F
4	1: None	.N: No doctor visits	1-5, missing	Stands as original value	1: None	Stands as original value	F
5	1: None	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	1: None	F
6	2-5: Visits, missing	.N: No doctor visits	.N: No doctor visits	Stands as original value	.:Missing	.:Missing	F
7	2-5: Visits, missing	.N: No doctor visits	1-5, missing	Stands as original value	.:Missing	Stands as original value	F
8	2-5: Visits, missing	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	.:Missing	F
9	1-5: 0 or more visits	More visits than indicated by H09053	More visits than indicated by H09053	Stands as original value	H09053	H09053	F
10	1-5: 0 or more visits	More visits than indicated by H09053	Same or fewer visits than indicated by H09053 or missing	Stands as original value	H09053	Stands as original value	F
11	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	More visits than indicated by H09053	Stands as original value	Stands as original value	H09053	F
12	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	Same or fewer visits than indicated by H09053 or missing	Stands as original value	Stands as original value	Stands as original value	
13	Missing	1-5, missing	1-5, missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18A1:
S09D01, S09D02, S09D05

N18A1	S09D01 is:	S09D02 is:	S09D05 is:	S09D01 is coded as:	S09D02 is coded as:	S09D05 is coded as:	*
1	1: Yes	1:Every day, 2:Some days, missing	Any value	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes, missing	3: Not at all	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	2: No, -5: don't know, missing	1:Every day, 2:Some days	Any value	1:Yes	Stands as original value	Stands as original value	B
4	2: No, -5: don't know	3:Not at all, missing	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
5	Missing	Missing	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 19:

Note 19 (Part a)
H09056, SEX, XSEXA, H09057-H09062

N19A	H09056 is :	SEX is:	H09057--H09062 are:	XSEXA is coded as:
1	Missing response	F	Any marked	2, female
2	Missing response	F	All missing	2, female
3	Missing response	M	Any marked	1, male
4	Missing response	M	All missing	1, male
5	Missing response	Z, missing	Any marked	2, female
6	Missing response	Z	All missing	., missing value
7	Missing response	Missing	All missing	., missing value
8	1, male	Any value	All missing	1, male
9	1, male	F	Any marked	2, female
10	1, male	M, Z, or missing	Any marked	1, male
11	2, female	Any value	Any marked	2, female
12	2, female	M	All missing	1, male
13	2, female	F, Z, or missing	All missing	2, female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H09056), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H09057 - H09062

N19B	XSEXA is:	H09057--H09062 are:	H09057--H09062 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

 * Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H09057--H09062 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 20
XSEXA, AGE, H09058, H09059

N20	XSEXA is:	AGE is:	H09058 is:	H09059 is:	H09058 is coded as:	H09059 is coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: under 40	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F B
6	2: Female	>=40	Missing	Missing	2: >= 40	Stands as original value	B
7	2: Female	Missing	Missing	Missing	Stands as original value	Stands as original value	
8	Missing	Any value	Missing	Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H09060, H09061, H09062

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	1: first trimester	Any value	Stands as original value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	1: pregnant now	2: second trimester	2: third trimester	Stands as original value	Stands as original value	.: missing value	F
4	2: Female	1: pregnant now	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: pregnant now	3: third trimester, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: pregnant in last 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
7	2: Female	3: not pregnant in past 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
8	2: Female	Missing response	1: first trimester	Any value	1: pregnant now	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 21 continued:

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
9	2: Female	Missing response	2: second trimester	2: third trimester	1: pregnant now	Stands as original value	.: missing value	B F
10	2: Female	Missing response	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	1: pregnant now	Stands as original value	Stands as original value	B
11	2: Female	Missing response	3: third trimester	Any value	1: pregnant now	Stands as original value	Stands as original value	B
12	2: Female	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	Missing	Missing response	Marked, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 22:
H09065, H09066

N22	H09065 is:	H09066 is:	H09065 is coded as:	H09066 is coded as:	*
1	1: yes	Any value	Stands as original value	Stands as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stands as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H09067, H09068

N23	H09067 is:	H09068 is:	H09067 is coded as:	H09068 is coded as:	*
1	1: yes	Any value	Stands as original value	Stands as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stands as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H09071, H09071A-H09071E

N24	H09071A is:	H09071B is:	H09071C is:	H09071D is:	H09071E is:	H09071 is coded as:	H09071A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2_V3:
H09008A, H09009A, H09010A, H09011A

N2_V3	H09008A is:	H09009A is:	H09010A is:	H09011A is:	H09008A is coded as:	H09009A is coded as:	H09010A is coded as:	H09011A is coded as:	*
1	1: yes or missing response	-6: Don't have a personal Dr	Any value	Any value	2: no	.C, question should be skipped	.N, valid skip if missing; .C, question should be skipped, if marked	Stands as original value	B F
2	1: yes	0-10 or missing response	1: yes	1-3	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped	F
3	1: yes	0-10 or missing response	Missing response	1-3	Stands as original value	Stands as original value	2: no	Stands as original value	B
4	1: yes	0-10 or missing response	1: yes	Missing response	Stands as original value	Stands as original value	Stands as original value	.N, valid skip	F
5	1: yes	0-10 or missing response	2: no	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
6	1: yes	0-10 or missing response	Missing response	Missing response	Stands as original value	Stands as original value	Stands as original value	Stands as original value	
7	2: no or missing response	0-10	1: yes	1-3	1: yes	Stands as original value	Stands as original value	.C, question should be skipped	B F
8	2: no or missing response	0-10	Missing response	1-3	1: yes	Stands as original value	Stands as original value	Stands as original value	B
9	2: no or missing response	0-10	Missing response	Missing response	1: yes	Stands as original value	Stands as original value	Stands as original value	B
10	2: no	Missing response	1: yes	1-3	Stands as original value	.N, valid skip if missing	.C, question should be skipped	Stands as original value	F
11	2: no	-6: Don't have a personal Dr	Any value	Any value	Stands as original value	.C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	B F

Coding Table for Note 2_V3 continued:

N2_V3	H09008A is:	H09009A is:	H09010A is:	H09011A is:	H09008A is coded as:	H09009A is coded as:	H09010A is coded as:	H09011A is coded as:	*
12	2: no or missing response	0-10 or missing	1: yes	Missing	1: yes	Stands as original value	Stands as original value	.N, valid skip	B F
13	2: no or missing response	0-10 or missing	2: no	Any value	1: yes	Stands as original value	Stands as original value	Stands as original value	B
14	2: no	Missing response	Missing response	Any value	Stands as original value	.N, valid skip	.N, valid skip	Stands as original value	F
15	Missing response	Missing response	1: yes	1-3	1: yes	Stands as original value	Stands as original value	.C, question should be skipped	B F
16	Missing response	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3_V3:
H09012A, H09013A

N3_V3	H09012A is:	H09013A is:	H09012A is coded as:	H09013A is coded as:	*
1	1: yes	1, 2, 3, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need to see a specialist	2: No	.C, question should be skipped	B F
3	2: no or missing response	1, 2, 3	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing; .C, question should be skipped if Marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4_V3:
H09014A, H09015A

N4_V3	H09014A is:	H09015A is:	H09014A is coded as:	H09015A is coded as:	*
1	1: yes	0-10, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need to see a specialist	2: No	.C, question should be skipped	B F
3	2: no or missing response	0-10	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need to see a specialist	Stands as original value	.N, valid skip if missing; .C, question should be skipped if Marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 5_V3:
H09016A, H09017A

N5_V3	H09016A is:	H09017A is:	H09016A is coded as:	H09017A is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: no calls	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: no calls or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6_V3:
H09018A, H09019A, H09020A

N6_V3	H09018A is:	H09019A-H09020A are:	H09018A is coded as:	H09019A-H09020A are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked, and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked, and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 6_V3:
Responses to H09019A-H09020A are all missing.

Definition of "Blank or NA" in Coding Table for Note 6_V3:
All of the following are true: H09019A-H09020A are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 6_V3:
H09019A-H09020A have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 6_V3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 7_V3:
H09021A, H09022A, H09023A

N7_V3	H09021A is:	H09022A-H09023A are:	H09021A is coded as:	H09022A-H09023A are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7_V3:
Responses to H09022A-H09023A are all missing.

Definition of "Blank or NA" in Coding Table for Note 7_V3:
All of the following are true: H09022A-H09023A are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 7_V3:
H09022A-H09023A have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 7_V3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 8_V3:
H09025A, H09026A-H09037A

N8_V3	H09025A is:	H09026A-H09037A are:	H09025A is coded as:	H09026A-H09037A are coded as:	*
1	1: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
2	2-7, or missing response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2-7	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	
5	Missing response	At least one is "marked"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 8_V3:
Responses to H09026A-H09037A are all missing.

Definition of "blank or NA" in Coding Table for Note 8_V3:
All of the following are true: H09026A-H09037A are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 8_V3:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 9_V3:
H09026A, H09027A

N9_V3	H09026A is:	H09027A is:	H09026A is coded as:	H09027A is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
3	1: yes, missing response	-6: No visits	2: no	.C, question should be skipped	B F
4	2: no, missing response	1-3: how much of a problem	1: yes	Stands as original value	B
5	2: no	-6: No visits or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10_V3:
H09028A, H09029A

N10_V3	H09028A is:	H09029A is:	H09028A is coded as:	H09029A is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
3	1: yes, missing response	-6: No visits	2: no	.C, question should be skipped	B F
4	2: no, missing response	1-3: how much of a problem	1: yes	Stands as original value	B
5	2: no	-6: No visits or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 11_V3:
H09039A, H09040A-H09041A

N11 _V3	H09039A is:	H09040A-H09041A are:	H09039A is coded as:	H09040A-H09041A are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: yes, -5: don't know, missing	"Blank or NA" or "NA or don't know"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
4	2: no	"Blank or NA" or "blank or don't know" or "NA or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are all missing.

Definition of "blank or NA" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 11_V3:
Responses to H09040A-H09041A are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 11_V3:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Table for Note 12_V3:
H09042A, H09043A

N12_V3	H09042A is:	H09043A is:	H09042A is coded as:	H09043A is coded as:	*
1	1: yes	1, 2, 3: how much of a problem, missing response	Stands as original value	Stands as original value	
2	1: yes, or missing response	-6: didn't look for information in health plan	2: no	.C, question should be skipped	B F
3	2: no, or missing response	1, 2, 3: how much of a problem	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't look for information in health plan	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13_V3:
H09044A, H09045A

N13_V3	H09044A is:	H09045A is:	H09044A is coded as:	H09045A is coded as:	*
1	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
2	1: yes, missing response	-6: didn't call health plan	2: no	.C, question should be skipped	B F
3	2: no, missing response	1-3: how much of a problem	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't call health plan	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14_V3:
H09046A, H09047A

N14_V3	H09046A is:	H09047A is:	H09046A is coded as:	H09047A is coded as:	*
1	1: yes	1-3: how much of a problem, missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't have any experience	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-3: how much of a problem	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't have any experience	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15_V3:
H09051--H09055, H09054A

N15_V3	H09051 is:	H09052 is:	H09054A is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09054A is coded as:	H09053-H09055 are coded as:	*
1	1: ever smoked	3 or 4: still smoke	Any value	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	Stand as original value	F
2	1: ever smoked	2: quit	2: quit >1 year ago or –5: don't know	Any value	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	1: ever smoked	2: quit	3: quit <1 year ago, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	Stand as original value	
4	1: ever smoked	-5: don't know, missing response	2: quit >1 year ago	Any value	Stands as original value	2: quit	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F B
5	1: ever smoked	-5: don't know, missing response	3: quit <1 year ago	Any value	Stands as original value	2: quit	Stands as original value	Stand as original value	F B
6	1: ever smoked	-5:don't know	-5: don't know, missing response	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
7	1: ever smoked	Missing response	-5: don't know	Any value	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
8	1: ever smoked	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 15_V3 continued:

N15_V3	H09051 is:	H09052 is:	H09054A is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09054A is coded as:	H09053-H09055 are coded as:	*
9	2: never, -5: don't know, missing response	3 or 4: still smoke	Any value	Any value	1: ever smoked	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	Stand as original value	B F
10	2: never or -5: don't know	2: quit, -5: don't know, or missing response	Any value	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
11	Missing response	2: quit	Missing response	2-5: some visits	1: ever smoked	Stands as original value	3: quit <1 year ago	Stand as original value	B
12	Missing response	2: quit, missing response	2: quit >1 year ago, -5: don't know	Any value	Stands as original value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
13	Missing response	2: quit, missing response	3: quit <1 year ago, missing response	2-5: some visits	1: ever smoked	Stands as original value	Stands as original value	Stand as original value	B
14	Missing response	2: quit, missing response	3: quit <1 year ago, missing response	1: none, -6: no visits, missing response	Stands as original value	Stands as original value	Stands as original value	Stand as original value	
15	Missing response	-5: don't know	Any value	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F

* Indication of backward coding (B) or forward coding (F).

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER III

2009 HEALTH CARE SURVEY OF DOD BENEFICIARIES (HCSDB)
CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of "Don't know" or "not sure"
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values '.' and incomplete grids '.I' are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
H09003, H09004

N1	H09003 is:	H09004 is:	H09003 is coded as:	H09004 is coded as:	*
1	1-13, health plan, -5, not sure	Marked or missing response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 2:
H09006, H09007, H09008

N2	H09006 is:	H09007-H09008 are:	H09006 is coded as:	H09007-H09008 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked, and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked, and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H09007-H09008 are all missing.

Definition of "Blank or NA" in Coding Table for Note 2:
All of the following are true: H09007-H09008 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 2:
H09007-H09008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 3:
H09009, H09010, H09011

N3	H09009 is:	H09010-H09011 are:	H09009 is coded as:	H09010-H09011 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H09010-H09011 are all missing.

Definition of "Blank or NA" in Coding Table for Note 3:
All of the following are true: H09010-H09011 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 3:
H09010-H09011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 3A1:
H09012, S09W01-S09W07

N3A1	H09012 is:	S09W01 is:	S09W02-S09W07 are:	H09012 is coded as:	S09W01 is coded as:	S09W02-S09W07 are coded as:	*
1	1: none	1 or 2	Any value	., missing	Stands as original value	Stand as original value	B
2	1: none	-5: don't know or missing	At least one is "marked"	., missing	Stands as original value	Stand as original value	B
3	1: none	-5: don't know or missing	"Blank or don't know"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
4	1: none	-6: no visits	Any value	Stands as original value	.C, question should be skipped	.N, valid skip if missing; .C, question should be skipped if marked	F
5	2-7 or missing	-6: no visits	At least one is "marked"	Stands as original value	., missing	Stand as original value	F
6	2-7 or missing	-6: no visits	"Blank or don't know"	1: none	.C, question should be skipped	.N, valid skip if missing; .C, question should be skipped if marked	B F
7	2-7 or missing	1, 2, -5: don't know, or missing	Any value	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "Blank or don't know" in Coding Table for Note 3A1:
Responses to S09W02-S09W07 are all either don't know (-5) or missing.

Definition of "marked" in Coding Table for Note 3A1:
Any pattern of marks outside the definition "Blank or don't know."

Coding Table for Note 3A2:
S09W02, S09W03

N3A2	S09W02 is:	S09W03 is:	S09W02 is coded as:	S09W03 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	Stands as original value	
3	2: no, -5: don't know, or missing	1: yes or 2: no	1: yes	Stands as original value	B
4	2: no or -5: don't know	-5: don't know or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing	-5: don't know or missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3A3:
S09W03, S09W04-S09W07

N3A3	S09W03 is:	S09W04-S09W07 are:	S09W03 is coded as:	S09W04-S09W07 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: no, -5: don't know, or missing	Any value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 3A4:
S09W05, S09W06

N3A4	S09W05 is:	S09W06 is:	S09W05 is coded as:	S09W06 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	Stands as original value	
3	2: no, -5: don't know, or missing	1-4	1: yes	Stands as original value	B
4	2: no or -5: don't know	-5: don't know or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing	-5: don't know or missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 4:
H09013, H09014-H09018

N4	H09013 is:	H09014-H09018 are:	H09013 is coded as:	H09014-H09018 are coded as:	*
1	1: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
2	2-7, or missing response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2-7	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	
5	Missing response	At least one is "marked"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H09014-H09018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H09014-H09018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 5:
H09015, H09016-H09017

N5	H09015 is:	H09016 is:	H09017 is:	H09015 is coded as:	H09016 is coded as:	H09017 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No, missing	1: Definitely yes 2: Somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No, missing	3: Somewhat no, 4: Definitely no, or missing	1: Definitely yes 2: Somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: Definitely no, or missing	3: Somewhat no, 4: Definitely no, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	3: Definitely no, 4: Somewhat no, or missing	3: Definitely no, 4: Somewhat no, or missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H09019, H09020-H09027, S09009

N6	H09019 is:	H09020-H09024 are:	H09025-H09026 are:	H09027 is:	S09009 is:	H09019 is coded as:	H09020-H09026 and S09009 are coded as:	H09027 is coded as:	*
1	1: Yes	Any value	Any value	Any value	Any value	Stands as original value	Stand as original value	., missing if –6; stands as original value otherwise	F
2	2: No, missing	Any value	Any value	0-10	Any value	1: Yes	Stand as original value	Stands as original value	B
3	2: No, missing	At least one is "marked"	Any value	Missing response	Any value	1: Yes	Stand as original value	Stands as original value	B
4	2: No	At least one is "marked"	Any value	-6: No personal doctor	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.C, question should be skipped	F
5	2: No	"Blank or NA"	Any value	-6: No personal doctor or missing	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	Any value	Any value	-6: No personal doctor	Any value	2: No	.N, valid skip if missing; .C, question should be skipped if marked	.C, question should be skipped	B F
7	Missing response	"Blank or NA"	Any value	Missing response	Any value	Stands as original value	Stand as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "blank or NA" in Coding Table for Note 6:
All of the following are true: H09020 is either 0: None or missing and H09021-H09024 are either not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 6:
Any pattern of marks for H09020-H09024 outside the definition "blank or NA."

Coding Table for Note 7:
H09020, H09021-H09026

N7	H09020 is:	H09021-H09024 are:	H09025-H09026 are:	H09020 is coded as:	H09021-H09026 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Any value	Stands as original value	Stand as original value	
2	0: None	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	1-6, or missing response	"Blank or NA"	Any value	0: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
4	1-6, or missing response	At least one is "marked" or "all are blank"	Any value	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H09021-H09024 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
All of the following are true: H09021-H09024 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks for H09021-H09024 outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 8:
H09025, H09026

N8	H09025 is:	H09026 is:	H09025 is coded as:	H09026 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	Stands as original value	
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing response	Stands as original value	.N, valid skip	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 8A1:
S09009, S09010

N8A1	S09009 is:	S09010 is:	S09009 is coded as:	S09010 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: no	Any value	Stands as original value	Stands as original value	
4	Missing	Any value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H09028, H09029-H09031

N9	H09028 is:	H09029-H09031 are:	H09028 is coded as:	H09029 is coded as:	H09030-H09031 are coded as:	*
1	1: Yes	Any value	Stands as original value	., missing if –6; stands as original value otherwise	Stand as original value	F
2	2: No, missing	At least one is "marked"	1: Yes	., missing if –6; stands as original value otherwise	Stand as original value	B
3	2: No	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H09029-H09031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H09029 and H09031 are a combination of not applicable (-6) or missing. H09030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 10:
H09030, H09031

N10	H09030 is:	H09031 is:	H09030 is coded as:	H09031 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1,2,3,4,5	0-10, or missing response	Stands as original value	Stands as original value	
3	1,2,3,4,5 or missing response	-6: didn't need to see a specialist	0: None	.C, question should be skipped	B F
4	0: none	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	0-10, or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10A1:
S09B02, S09B03-S09B04

N10A1	S09B02 is:	S09B03-S09B04 are:	S09B02 is coded as:	S09B03-S09B04 are coded as:	*
1	1: yes	Any value	Stands as original value	., missing if –6; stand as original value otherwise	F
2	2: no or missing response	At least one is "marked"	1: yes	Stand as original value	B
3	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10A1:
Responses to S09B03-S09B04 are all missing.

Definition of "blank or NA" in Coding Table for Note 10A1:
All of the following are true: S09B03-S09B04 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 10A1:
Any pattern of marks outside the definition "all are blank"

Coding Table for Note 11:
H09032, H09033

N11	H09032 is:	H09033 is:	H09032 is coded as:	H09033 is coded as:	*
1	1: yes	1, 2, 3, 4, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need care, tests, or treatment	2: No	.C, question should be skipped	B F
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need care, tests, or treatment	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 11B:
H09034B, H09034

N11B	H09034B is:	H09034 is:	H09034B is coded as:	H09034 is coded as:	*
1	1: yes	1-4 or missing	Stands as original value	Stands as original value	
2	1: yes	-6: didn't look for information	Stands as original value	., missing	F
3	2: no or missing	1-4	1: yes	Stands as original value	B
4	2: no	-6: didn't look for information or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing	-6: didn't look for information	2: no	.C, question should be skipped	B F
6	Missing	Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H09035, H09036

N12	H09035 is:	H09036 is:	H09035 is coded as:	H09036 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need service or equipment	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need service or equipment, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H09037, H09038

N13	H09037 is:	H09038 is:	H09037 is coded as:	H09038 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need prescription meds	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need prescription meds, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H09039, H09040-H09041

N14	H09039 is:	H09040-H09041 are:	H09039 is coded as:	H09040-H09041 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: Yes or missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: No or missing response	At least one is "marked"	1: Yes	., missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 14:
Responses to H09040-H09041 are all missing.

Definition of "blank or NA" in Coding Table for Note 14:
All of the following are true: H09040-H09041 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 14:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 15:
H09042, H09043

N15	H09042 is:	H09043 is:	H09042 is coded as:	H09043 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't receive forms to fill out	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't receive forms to fill out, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 16:
H09044, H09045-H09046

N16	H09044 is:	H09045-H09046 are:	H09044 is coded as:	H09045-H09046 are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: yes, -5: don't know, missing	"Blank or NA" or "NA or don't know"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
4	2: no	"Blank or NA" or "blank or don't know" or "NA or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 16:
Responses to H09045-H09046 are all missing.

Definition of "blank or NA" in Coding Table for Note 16:
Responses to H09045-H09046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 16:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 17:
H09051--H09055

N17	H09051 is:	H09052 is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09053- H09055 are coded as:	*
1	1: ever smoked	3 or 4: still smoke	Any value	Stands as original value	Stands as original value	Stand as original value	
2	1: ever smoked	2: quit, -5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	1: ever smoked	Missing response	Any value	Stands as original value	Stands as original value	Stand as original value	
4	2: never, -5: don't know, missing response	3 or 4: still smoke	Any value	1: ever smoked	Stands as original value	Stand as original value	B
5	2: never or -5: don't know	2: quit, -5: don't know, or missing response	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
6	Missing response	2: quit, missing response	Any = 2-5: some visits	1: ever smoked	Stands as original value	Stand as original value	B
7	Missing response	2: quit, missing response	All = 1: None, -6: No visits, or missing	Stands as original value	Stands as original value	Stand as original value	
8	Missing response	-5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18:
H09053, H09054-H09055

N18	H09053 is:	H09054 is:	H09055 is:	H09053 is coded as:	H09054 is coded as:	H09055 is coded as:	*
1	.N: No doctor visits	Any value	Any value	Stands as original value	.C, question should be skipped if marked; .N: No doctor visits, otherwise	.C, question should be skipped if marked; .N: No doctor visits, otherwise	F
2	.C: Should be skipped	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	1: None	.N: No doctor visits	.N: No doctor visits	Stands as original value	1: None	1: None	F
4	1: None	.N: No doctor visits	1-5, missing	Stands as original value	1: None	Stands as original value	F
5	1: None	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	1: None	F
6	2-5: Visits, missing	.N: No doctor visits	.N: No doctor visits	Stands as original value	.:Missing	.:Missing	F
7	2-5: Visits, missing	.N: No doctor visits	1-5, missing	Stands as original value	.:Missing	Stands as original value	F
8	2-5: Visits, missing	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	.:Missing	F
9	1-5: 0 or more visits	More visits than indicated by H09053	More visits than indicated by H09053	Stands as original value	H09053	H09053	F
10	1-5: 0 or more visits	More visits than indicated by H09053	Same or fewer visits than indicated by H09053 or missing	Stands as original value	H09053	Stands as original value	F
11	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	More visits than indicated by H09053	Stands as original value	Stands as original value	H09053	F
12	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	Same or fewer visits than indicated by H09053 or missing	Stands as original value	Stands as original value	Stands as original value	
13	Missing	1-5, missing	1-5, missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 19:

Note 19 (Part a)
H09056, SEX, XSEXA, H09057-H09062

N19A	H09056 is :	SEX is:	H09057--H09062 are:	XSEXA is coded as:
1	Missing response	F	Any marked	2, female
2	Missing response	F	All missing	2, female
3	Missing response	M	Any marked	1, male
4	Missing response	M	All missing	1, male
5	Missing response	Z, missing	Any marked	2, female
6	Missing response	Z	All missing	., missing value
7	Missing response	Missing	All missing	., missing value
8	1, male	Any value	All missing	1, male
9	1, male	F	Any marked	2, female
10	1, male	M, Z, or missing	Any marked	1, male
11	2, female	Any value	Any marked	2, female
12	2, female	M	All missing	1, male
13	2, female	F, Z, or missing	All missing	2, female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H09056), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H09057 - H09062

N19B	XSEXA is:	H09057--H09062 are:	H09057--H09062 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H09057--H09062 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 20
XSEXA, AGE, H09058, H09059

N20	XSEXA is:	AGE is:	H09058 is:	H09059 is:	H09058 is coded as:	H09059 is coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: under 40	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F B
6	2: Female	>=40	Missing	Missing	2: >= 40	Stands as original value	B
7	2: Female	Missing	Missing	Missing	Stands as original value	Stands as original value	
8	Missing	Any value	Missing	Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H09060, H09061, H09062

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	1: first trimester	Any value	Stands as original value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	1: pregnant now	2: second trimester	2: third trimester	Stands as original value	Stands as original value	.: missing value	F
4	2: Female	1: pregnant now	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: pregnant now	3: third trimester, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: pregnant in last 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
7	2: Female	3: not pregnant in past 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
8	2: Female	Missing response	1: first trimester	Any value	1: pregnant now	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 21 continued:

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
9	2: Female	Missing response	2: second trimester	2: third trimester	1: pregnant now	Stands as original value	.: missing value	B F
10	2: Female	Missing response	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	1: pregnant now	Stands as original value	Stands as original value	B
11	2: Female	Missing response	3: third trimester	Any value	1: pregnant now	Stands as original value	Stands as original value	B
12	2: Female	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	Missing	Missing response	Marked, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 22:
H09065, H09066

N22	H09065 is:	H09066 is:	H09065 is coded as:	H09066 is coded as:	*
1	1: yes	Any value	Stands as original value	Stands as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stands as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H09067, H09068

N23	H09067 is:	H09068 is:	H09067 is coded as:	H09068 is coded as:	*
1	1: yes	Any value	Stands as original value	Stands as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stands as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23A1:
S09B22, S09B22A-S09B22C

N23A1	S09B22A is:	S09B22B is:	S09B22C is:	S09B22 is coded as:	S09B22A-C are coded as:	*
1	1: Marked	Any value	Any value	1: Yes, deployed in the past year	Stand as original value	F
2	2: Unmarked	1: Marked	Any value	2: Yes, deployed in the past two years	Stand as original value	F
3	2: Unmarked	2: Unmarked	1: Marked	3: No, not deployed in the past two years	Stand as original value	F
4	2: Unmarked	2: Unmarked	2: Unmarked	.:Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H09071, H09071A-H09071E

N24	H09071A is:	H09071B is:	H09071C is:	H09071D is:	H09071E is:	H09071 is coded as:	H09071A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24A1:
S09012, S09013

N24A1	S09012 is:	S09013 is:	S09012 is coded as:	S09013 is coded as:	*
1	1-4 or missing	Any value	Stands as original value	Stands as original value	
2	-5: cannot remember most recent visit	1-5	., missing	Stands as original value	B
3	-5: cannot remember most recent visit	Missing	Stands as original value	.N, valid skip	F

* Indication of backward coding (B) or forward coding (F).

APPENDIX B

CODING SCHEME AND CODING TABLES – QUARTER IV

QUARTER IV

2009 HEALTH CARE SURVEY OF DOD BENEFICIARIES (HCSDB)
CODING SCHEME AND CODING TABLES

BASIC SAS AND ASCII/EBCDIC MISSING DATA AND NOT APPLICABLE CODES

SAS	ASCII/EBCDIC	
Numeric	Numeric	Description
.	-9	No response
.O	-7	Out of range error
.N	-6	Not Applicable or valid skip
.D	-5	Scalable response of "Don't know" or "not sure"
.I	-4	Incomplete grid error
.C	-1	Question should have been skipped.

Missing values '.' and incomplete grids '.I' are encoded prior to implementation of the Coding Scheme Notes (see below).

Coding Table for Note 1:
  H09003, H09004

N1	H09003 is:	H09004 is:	H09003 is coded as:	H09004 is coded as:	*
1	1-13, health plan, -5, not sure	Marked or missing response	Stands as original value	Stands as original value	
2	-6, no usage in past 12 months	Marked response	Stands as original value	.C, question should be skipped	F
3	-6, no usage in past 12 months	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Marked or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 1A1:
  S09J01, S09J02A-S09J02I, S09J03-S09J06, S09J07A-S09J07N, S09J08, S09J09A-S09J09L, S09J10

N1A1	S09J01 is:	S09J02A-S09J02H are:	S09J02I, S09J03-S09J06, S09J07A-S09J07N, S09J08, S09J09A-S09J09L, S09J10 are:	S09J01 is coded as:	S09J02A-S09J02H are coded as:	S09J02I, S09J03-S09J06, S09J07A-S09J07N, S09J08, S09J09A-S09J09L, S09J10 are coded as:	*
1	1: yes	Any value	Any value	Stands as original value	Stand as original value	Stand as original value	
2	2: no or missing response	At least one value is 1: marked	Any value	1: Yes	Stand as original value	Stand as original value	B
3	2: no	All values are 2: unmarked or missing response	Any value	Stands as original value	.N, valid skip	.N, valid skip if missing or unmarked; .C, question should be skipped if marked	F
4	Missing response	All values are 2: unmarked or missing response	At least one is "marked"	1: Yes	Stand as original value	Stand as original value	B
5	Missing response	All values are 2: unmarked or missing response	"All are blank or don't know"	Stands as original value	Stand as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank or don't know" in Coding Table for Note 1A1:
Responses to S09J03-S09J06, S09J07A-S09J07N, S09J08, S09J09A-S09J09L, and S09J10 are all missing or unmarked
or -5:don't know. (Because the 1: marked value for S09J02I indicates a "don't know" response, it does not matter if
S09J02I is marked, unmarked, or missing.)

Definition of "marked" in Coding Table for Note 1A1:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 1A2:
S09J03-S09J05

N1A2	S09J03 is:	S09J04-S09J05 are:	S09J03 Is coded as:	S09J04-S09J05 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stand as original value	
2	1-2: yes	Any value	Stands as original value	Stand as original value	
3	4: no	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	Any value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 1A3:
S09J04, S09J05

N1A3	S09J04 is:	S09J05 are:	S09J04 is coded as:	S09J05 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1, 2: yes, -5: don't know, or missing response	1-1000, don't know or missing	Stands as original value	Stands as original value	
3	1, 2: yes, -5: don't know, or missing response	0	3: no	.C, question should be skipped	B F
4	3:No	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 1A4:
S09J06, S09J07A- S09J07N

N1A4	S09J06 is:	S09J07A- S09J07N are:	S09J06 Is coded as:	S09J07A- S09J07N are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stand as original value	
2	1: Yes or missing response	At least one is "marked"	2: No	Stand as original value	B
3	1: Yes	"All are blank"	Stands as original value	.N, valid skip	F
4	2: No	Any value	Stands as original value	Stand as original value	
5	Missing response	"All are blank"	Stands as original value	., missing if unmarked; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 1A4:
Responses to S09J07A- S09J07N are all missing or unmarked.

Definition of "marked" in Coding Table for Note 1A4:
Any pattern of marks outside the definitions "all are blank."

Coding Table for Note 1A5:
S09J08, S09J09A- S09J09L

N1A5	S09J08 is:	S09J09A- S09J09L are:	S09J08 is coded as:	S09J09A- S09J09L are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stand as original value	
2	1: Yes or missing response	At least one is "marked"	2: No	Stand as original value	B
3	1: Yes	"All are blank"	Stands as original value	.N, valid skip	F
4	2: No	Any value	Stands as original value	Stand as original value	
5	Missing response	"All are blank"	Stands as original value	., missing if unmarked; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 1A5:
Responses to S09J09A- S09J09L are all missing or unmarked.

Definition of "marked" in Coding Table for Note 1A5:
Any pattern of marks outside the definitions "all are blank."

Coding Table for Note 2:
H09006, H09007, H09008

N2	H09006 is:	H09007-H09008 are:	H09006 is coded as:	H09007-H09008 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked, and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked, and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 2:
Responses to H09007-H09008 are all missing.

Definition of "Blank or NA" in Coding Table for Note 2:
All of the following are true: H09007-H09008 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 2:
H09007-H09008 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 2:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 3:
H09009, H09010, H09011

N3	H09009 is:	H09010-H09011 are:	H09009 is coded as:	H09010-H09011 are coded as:	*
1	1: yes	"All are blank"	Stands as original value	Stand as original value	
2	1:yes or missing response	"Blank or NA"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	1: yes	"One marked and one NA"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	1: yes	At least one is "marked"	Stands as original value	Stand as original value	
5	2: no	"One marked and one NA"	Stands as original value	.C, question should be skipped if marked	F
6	2: no or missing response	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
7	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
8	Missing response	"All are blank"	Stands as original value	Stand as original value	

*   Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 3:
Responses to H09010-H09011 are all missing.

Definition of "Blank or NA" in Coding Table for Note 3:
All of the following are true: H09010-H09011 are a combination of not applicable (-6) or missing.

Definition of "One marked and one NA" in Coding Table for Note 3:
H09010-H09011 have one response marked not applicable (-6) and one marked response (other than not applicable).

Definition of "marked" in Coding Table for Note 3:
Any pattern of marks outside the definitions "all are blank", "One marked and one NA", and "Blank or NA."

Coding Table for Note 4:
H09013, H09014-H09018

N4	H09013 is:	H09014-H09018 are:	H09013 is coded as:	H09014-H09018 are coded as:	*
1	1: None	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
2	2-7, or missing response	"Blank or NA"	1: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2-7	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	
5	Missing response	At least one is "marked"	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 4:
Responses to H09014-H09018 are all missing.

Definition of "blank or NA" in Coding Table for Note 4:
All of the following are true: H09014-H09018 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 4:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 5:
H09015, H09016-H09017

N5	H09015 is:	H09016 is:	H09017 is:	H09015 is coded as:	H09016 is coded as:	H09017 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	Stands as original value	
2	1: Yes	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	2: No, missing	1: Definitely yes 2: Somewhat yes	Any value	1: Yes	Stands as original value	Stands as original value	B
4	2: No, missing	3: Somewhat no, 4: Definitely no, or missing	1: Definitely yes 2: Somewhat yes	1: Yes	Stands as original value	Stands as original value	B
5	2: No	3: Somewhat no, 4: Definitely no, or missing	3: Somewhat no, 4: Definitely no, or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	3: Definitely no, 4: Somewhat no, or missing	3: Definitely no, 4: Somewhat no, or missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 6:
H09019, H09020-H09027, S09009

N6	H09019 is:	H09020-H09024 are:	H09025-H09026, S09009 are:	H09027 is:	H09019 is coded as:	H09020-H09026 and S09009 are coded as:	H09027 is coded as:	*
1	1: Yes	Any value	Any value	Any value	Stands as original value	Stand as original value	., missing if –6; stands as original value otherwise	F
2	2: No, missing	Any value	Any value	0-10	1: Yes	Stand as original value	Stands as original value	B
3	2: No, missing	At least one is "marked"	Any value	Missing response	1: Yes	Stand as original value	Stands as original value	B
4	2: No	At least one is "marked"	Any value	-6: No personal doctor	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.C, question should be skipped	F
5	2: No	"Blank or NA"	Any value	-6: No personal doctor or missing	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	Any value	Any value	-6: No personal doctor	2: No	.N, valid skip if missing; .C, question should be skipped if marked	.C, question should be skipped	B F
7	Missing response	"Blank or NA"	Any value	Missing response	Stands as original value	Stand as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "blank or NA" in Coding Table for Note 6:
All of the following are true: H09020 is either 0: None or missing and H09021-H09024 are either not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 6:
Any pattern of marks for H09020-H09024 outside the definition "blank or NA."

Coding Table for Note 7:
H09020, H09021-H09026

N7	H09020 is:	H09021-H09024 are:	H09025-H09026 are:	H09020 is coded as:	H09021-H09026 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Any value	Stands as original value	Stand as original value	
2	0: None	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	1-6, or missing response	"Blank or NA"	Any value	0: None	.N, valid skip if missing; .C, question should be skipped if marked	B F
4	1-6, or missing response	At least one is "marked" or "all are blank"	Any value	Stands as original value	., missing if –6; stand as original value otherwise	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 7:
Responses to H09021-H09024 are all missing.

Definition of "blank or NA" in Coding Table for Note 7:
All of the following are true: H09021-H09024 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 7:
Any pattern of marks for H09021-H09024 outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 8:
H09025, H09026

N8	H09025 is:	H09026 is:	H09025 is coded as:	H09026 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	Stands as original value	
3	2: no or missing response	1, 2, 3, 4	1: yes	Stands as original value	B
4	2: no	Missing response	Stands as original value	.N, valid skip	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 8A1:
S09009, S09010

N8A1	S09009 is:	S09010 is:	S09009 is coded as:	S09010 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	Any value	Stands as original value	Stands as original value	
2	1: yes	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: no	Any value	Stands as original value	Stands as original value	
4	Missing	Any value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 9:
H09028, H09029-H09031

N9	H09028 is:	H09029-H09031 are:	H09028 is coded as:	H09029 is coded as:	H09030-H09031 are coded as:	*
1	1: Yes	Any value	Stands as original value	., missing if –6; stands as original value otherwise	Stand as original value	F
2	2: No, missing	At least one is "marked"	1: Yes	., missing if –6; stands as original value otherwise	Stand as original value	B
3	2: No	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 9:
Responses to H09029-H09031 are all missing.

Definition of "blank or NA" in Coding Table for Note 9:
All of the following are true: H09029 and H09031 are a combination of not applicable (-6) or missing. H09030 is either missing or 0: None.

Definition of "marked" in Coding Table for Note 9:
Any pattern of marks outside the definitions "all are blank" and "Blank or NA."

Coding Table for Note 10:
H09030, H09031

N10	H09030 is:	H09031 is:	H09030 is coded as:	H09031 is coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stands as original value	
2	1,2,3,4,5	0-10, or missing response	Stands as original value	Stands as original value	
3	1,2,3,4,5 or missing response	-6: didn't need to see a specialist	0: None	.C, question should be skipped	B F
4	0: none	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	0-10, or missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 10A1:
S09B02, S09B03-S09B04

N10A1	S09B02 is:	S09B03-S09B04 are:	S09B02 is coded as:	S09B03-S09B04 are coded as:	*
1	1: yes	Any value	Stands as original value	., missing if –6; stand as original value otherwise	F
2	2: no or missing response	At least one is "marked"	1: yes	Stand as original value	B
3	2: no	"All are blank" or "Blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 10A1:
Responses to S09B03-S09B04 are all missing.

Definition of "blank or NA" in Coding Table for Note 10A1:
All of the following are true: S09B03-S09B04 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 10A1:
Any pattern of marks outside the definition "all are blank"

Coding Table for Note 11:
H09032, H09033

N11	H09032 is:	H09033 is:	H09032 is coded as:	H09033 is coded as:	*
1	1: yes	1-4 or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need care, tests, or treatment	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4	1: yes	Stands as original value	B
4	2: no	Missing, or –6: didn't need care, tests, or treatment	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 11B:
H09034B, H09034

N11B	H09034B is:	H09034 is:	H09034B is coded as:	H09034 is coded as:	*
1	1: yes	1-4 or missing	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't look for information	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4	1: yes	Stands as original value	B
4	2: no	-6: didn't look for information or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 12:
H09035, H09036

N12	H09035 is:	H09036 is:	H09035 is coded as:	H09036 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need service or equipment	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need service or equipment, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 13:
H09037, H09038

N13	H09037 is:	H09038 is:	H09037 is coded as:	H09038 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't need prescription meds	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't need prescription meds, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 14:
H09039, H09040-H09041

N14	H09039 is:	H09040-H09041 are:	H09039 is coded as:	H09040-H09041 are coded as:	*
1	1: Yes	At least one is "marked" or "all are blank"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: Yes or missing response	"Blank or NA"	2: No	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: No or missing response	At least one is "marked"	1: Yes	., missing if –6; stand as original value otherwise	B F
4	2: No	"All are blank" or "blank or NA"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 14:
Responses to H09040-H09041 are all missing.

Definition of "blank or NA" in Coding Table for Note 14:
All of the following are true: H09040-H09041 are a combination of not applicable (-6) or missing.

Definition of "marked" in Coding Table for Note 14:
Any pattern of marks outside the definitions "all are blank" and "blank or NA."

Coding Table for Note 15:
H09042, H09043

N15	H09042 is:	H09043 is:	H09042 is coded as:	H09043 is coded as:	*
1	1: yes	1-4: how often, or missing response	Stands as original value	Stands as original value	
2	1: yes or missing response	-6: didn't receive forms to fill out	2: no	.C, question should be skipped	B F
3	2: no or missing response	1-4: how often	1: yes	Stands as original value	B
4	2: no	-6: didn't receive forms to fill out, or missing response	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 16:
H09044, H09045-H09046

N16	H09044 is:	H09045-H09046 are:	H09044 is coded as:	H09045-H09046 are coded as:	*
1	1: yes	At least one is "marked", "all are blank" or "blank or don't know"	Stands as original value	., missing if –6; stand as original value otherwise	F
2	1: yes, -5: don't know, missing	"Blank or NA" or "NA or don't know"	2: no	.N, valid skip if missing; .C, question should be skipped if marked	B F
3	2: no, -5: don't know, missing	At least one is "marked"	1: yes	., missing if –6; stand as original value otherwise	B F
4	2: no	None are "marked"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	-5: don't know	"Blank or don't know" or "all are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
6	Missing response	"Blank or don't know" or "all are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 16:
Responses to H09045-H09046 are all missing.

Definition of "blank or NA" in Coding Table for Note 16:
Responses to H09045-H09046 are either all not applicable (-6) or a combination of missing and not applicable (-6).

Definition of "blank or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are either all don't know (-5) or a combination of missing and don't know (-5).

Definition of "NA or don't know" in Coding Table for Note 16:
Responses to H09045-H09046 are a combination of not applicable (-6) and don't know (-5).

Definition of "marked" in Coding Table for Note 16:
Any pattern of marks outside the definitions "all are blank," "blank or NA," "blank or don't know," or "NA or don't know".

Coding Table for Note 17:
H09051--H09055

N17	H09051 is:	H09052 is:	H09053-H09055 are:	H09051 is coded as:	H09052 is coded as:	H09053- H09055 are coded as:	*
1	1: ever smoked	3 or 4: still smoke	Any value	Stands as original value	Stands as original value	Stand as original value	
2	1: ever smoked	2: quit, -5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F
3	1: ever smoked	Missing response	Any value	Stands as original value	Stands as original value	Stand as original value	
4	2: never, -5: don't know, missing response	3 or 4: still smoke	Any value	1: ever smoked	Stands as original value	Stand as original value	B
5	2: never or -5: don't know	2: quit, -5: don't know, or missing response	Any value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	.C, question should be skipped if marked; .N, valid skip if missing	F
6	Missing response	2: quit, missing response	Any = 2-5: some visits	1: ever smoked	Stands as original value	Stand as original value	B
7	Missing response	2: quit, missing response	All = 1: None, -6: No visits, or missing	Stands as original value	Stands as original value	Stand as original value	
8	Missing response	-5: don't know	Any value	Stands as original value	Stands as original value	.C, question should be skipped if marked; .N, valid skip if missing	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 18:
H09053, H09054-H09055

N18	H09053 is:	H09054 is:	H09055 is:	H09053 is coded as:	H09054 is coded as:	H09055 is coded as:	*
1	.N: No doctor visits	Any value	Any value	Stands as original value	.C, question should be skipped if marked; .N: No doctor visits, otherwise	.C, question should be skipped if marked; .N: No doctor visits, otherwise	F
2	.C: Should be skipped	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
3	1: None	.N: No doctor visits	.N: No doctor visits	Stands as original value	1: None	1: None	F
4	1: None	.N: No doctor visits	1-5, missing	Stands as original value	1: None	Stands as original value	F
5	1: None	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	1: None	F
6	2-5: Visits, missing	.N: No doctor visits	.N: No doctor visits	Stands as original value	.:Missing	.:Missing	F
7	2-5: Visits, missing	.N: No doctor visits	1-5, missing	Stands as original value	.:Missing	Stands as original value	F
8	2-5: Visits, missing	1-5, missing	.N: No doctor visits	Stands as original value	Stands as original value	.:Missing	F
9	1-5: 0 or more visits	More visits than indicated by H09053	More visits than indicated by H09053	Stands as original value	H09053	H09053	F
10	1-5: 0 or more visits	More visits than indicated by H09053	Same or fewer visits than indicated by H09053 or missing	Stands as original value	H09053	Stands as original value	F
11	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	More visits than indicated by H09053	Stands as original value	Stands as original value	H09053	F
12	1-5: 0 or more visits	Same or fewer visits than indicated by H09053 or missing	Same or fewer visits than indicated by H09053 or missing	Stands as original value	Stands as original value	Stands as original value	
13	Missing	1-5, missing	1-5, missing	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 19:

Note 19 (Part a)
H09056, SEX, XSEXA, H09057-H09062

N19A	H09056 is :	SEX is:	H09057--H09062 are:	XSEXA is coded as:
1	Missing response	F	Any marked	2, female
2	Missing response	F	All missing	2, female
3	Missing response	M	Any marked	1, male
4	Missing response	M	All missing	1, male
5	Missing response	Z, missing	Any marked	2, female
6	Missing response	Z	All missing	., missing value
7	Missing response	Missing	All missing	., missing value
8	1, male	Any value	All missing	1, male
9	1, male	F	Any marked	2, female
10	1, male	M, Z, or missing	Any marked	1, male
11	2, female	Any value	Any marked	2, female
12	2, female	M	All missing	1, male
13	2, female	F, Z, or missing	All missing	2, female

SEX (PNSEXCD) is the gender from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

XSEXA is the recoded gender variable after taking into account the self-reported response (H09056), any responses to gender-specific questions, and the gender of the sample beneficiary from DEERS.

Note 19 (Part B):
XSEXA, H09057 - H09062

N19B	XSEXA is:	H09057--H09062 are:	H09057--H09062 are coded as:	*
1	1: Male	"All are blank"	.N, valid skip	F
2	1: Male	At least one is "marked"	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	"All are blank" or at least one is "marked"	Stand as original value	
4	Missing	"All are blank" or at least one is "marked"	Missing value	F

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 19b:
All variables H09057--H09062 are missing.

Definition of "marked" in Coding Table for Note 19b:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 20
XSEXA, AGE, H09058, H09059

N20	XSEXA is:	AGE is:	H09058 is:	H09059 is:	H09058 is coded as:	H09059 is coded as:	*
1	1: Male	Any value	.C, question should be skipped, or .N, valid skip	C, question should be skipped, or .N, valid skip	Stands as original value	Stands as original value	
2	2: Female	Any value	2: 40 or over	Any value	Stands as original value	Stands as original value	
3	2: Female	Any value	1: under 40	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	2: Female	Any value	Missing	Marked	2: >= 40	Stands as original value	B
5	2: Female	< 40	Missing	Missing	1: < 40	.N, valid skip	F B
6	2: Female	>=40	Missing	Missing	2: >= 40	Stands as original value	B
7	2: Female	Missing	Missing	Missing	Stands as original value	Stands as original value	
8	Missing	Any value	Missing	Missing	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

AGE (DAGEQY) is from the DEERS file. This variable is not used to override questionnaire responses, but to clear up any omissions or discrepancies in the responses.

Coding Table for Note 21:
XSEXA, H09060, H09061, H09062

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
1	1: Male	Any value	Any value	Any value	Stands as original value	Stands as original value	Stands as original value	
2	2: Female	1: pregnant now	1: first trimester	Any value	Stands as original value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
3	2: Female	1: pregnant now	2: second trimester	2: third trimester	Stands as original value	Stands as original value	.: missing value	F
4	2: Female	1: pregnant now	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	Stands as original value	Stands as original value	Stands as original value	
5	2: Female	1: pregnant now	3: third trimester, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	
6	2: Female	2: pregnant in last 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	Stands as original value	F
7	2: Female	3: not pregnant in past 12 months	Any value	Any value	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	.N, valid skip if missing; .C, question should be skipped if marked	F
8	2: Female	Missing response	1: first trimester	Any value	1: pregnant now	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	B F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 21 continued:

N21	XSEXA is:	H09060 is:	H09061 is:	H09062 is:	H09060 is coded as:	H09061 is coded as:	H09062 is coded as:	*
9	2: Female	Missing response	2: second trimester	2: third trimester	1: pregnant now	Stands as original value	.: missing value	B F
10	2: Female	Missing response	2: second trimester	4: first trimester, 3: second trimester, 1: Did not receive prenatal care, or missing	1: pregnant now	Stands as original value	Stands as original value	B
11	2: Female	Missing response	3: third trimester	Any value	1: pregnant now	Stands as original value	Stands as original value	B
12	2: Female	Missing response	Missing response	Any value	Stands as original value	Stands as original value	Stands as original value	F
13	Missing	Missing response	Marked, missing response	Any value	Stands as original value	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 22:
H09065, H09066

N22	H09065 is:	H09066 is:	H09065 is coded as:	H09066 is coded as:	*
1	1: yes	Any value	Stands as original value	Stands as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stands as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 23:
H09067, H09068

N23	H09067 is:	H09068 is:	H09067 is coded as:	H09068 is coded as:	*
1	1: yes	Any value	Stands as original value	Stands as original value	
2	2: no or missing response	1: yes or 2: no	1: yes	Stands as original value	B
3	2: no	Missing response	Stands as original value	.N, valid skip	F
4	Missing response	Missing response	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24:
H09071, H09071A-H09071E

N24	H09071A is:	H09071B is:	H09071C is:	H09071D is:	H09071E is:	H09071 is coded as:	H09071A-E are coded as:	*
1	Any value	1: Marked	Any value	Any value	Any value	2: Yes, Mexican, Mexican American, Chicano	Stand as original value	F
2	Any value	2: Unmarked	Any value	Any value	1: Marked	5: Yes, other Spanish, Hispanic, or Latino	Stand as original value	F
3	Any value	2: Unmarked	1: Marked	Any value	2: Unmarked	3: Yes, Puerto Rican	Stand as original value	F
4	Any value	2: Unmarked	2: Unmarked	1: Marked	2: Unmarked	4: Yes, Cuban	Stand as original value	F
5	1: Marked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	1: No, not Spanish, Hispanic, or Latino	Stand as original value	F
6	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	2: Unmarked	.: Missing	Stand as original value	F

* Indication of backward coding (B) or forward coding (F).

Coding Table for Note 24B1:
S09Z01, S09Z15-S09Z17

N24B1	S09Z01 is:	S09Z15-S09Z17 are:	S09Z01 is coded as:	S09Z15-S09Z17 are coded as:	*
1	1: yes	Any value	Stands as original value	Stand as original value	
2	2: no or missing response	At least one is "marked"	1: yes	Stand as original value	B
3	2: no	"All are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
4	Missing response	"All are blank"	Stands as original value	Stand as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 24B1:
All responses to S09Z15–S09Z17 are missing.

Definition of "marked" in Coding Table for Note 24B1:
Any pattern of marks outside the definition "all are blank."

Coding Table for Note 24B2:
S09Z15, S09Z16-S09Z17

N24B2	S09Z15 is:	S09Z16-S09Z17 are:	S09Z15 is coded as:	S09Z16-S09Z17 are coded as:	*
1	.N, valid skip, or .C, question should be skipped	.N, valid skip, or .C, question should be skipped	Stands as original value	Stand as original value	
2	1: yes	Any value	Stands as original value	Stand as original value	
3	2: no or missing response	At least one is "marked"	1: yes	Stands as original value	B
4	2: no	"All are blank"	Stands as original value	.N, valid skip if missing; .C, question should be skipped if marked	F
5	Missing response	"All are blank"	Stands as original value	Stands as original value	

* Indication of backward coding (B) or forward coding (F).

Definition of "all are blank" in Coding Table for Note 24B2:
All responses to S09Z16–S09Z17 are missing.

Definition of "marked" in Coding Table for Note 24B2:
Any pattern of marks outside the definition "all are blank."

APPENDIX C

MAPPING THE MILITARY TREATMENT FACILITY (MTF) TO THE CATCHMENT AREA

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
0001	0001	FOX AHC-REDSTONE ARSENAL	761
0003	0003	LYSTER AHC-FT. RUCKER	962
0004	0004	42ND MEDICAL GROUP-MAXWELL	825
0005	0005	BASSETT ACH-FT. WAINWRIGHT	346
0005	0204	TMC FT. RICHARDSON	397
0005	6033	KAMISH CLINIC-FT. WAINWRIGHT	454
0006	0006	3rd MED GRP-ELMENDORF	902
0008	0008	R W BLISS AHC-FT. HUACHUCA	983
0009	0009	56th MED GRP-LUKE	828
0010	0010	355th MED GRP-DAVIS MONTHAN	967
0013	0013	19th MEDICAL GROUP-LITTLE ROCK	1071
0014	0014	60th MED GRP-TRAVIS	875
0014	0395	62nd MED SQUAD-MCCHORD	53
0018	0018	30th MED GRP-VANDENBERG	1022
0019	0019	95th MED GRP-EDWARDS	886
0024	0024	NH CAMP PENDLETON	958
0024	0208	BMC MCB CAMP PENDLETON	44
0024	0209	BMC BARSTOW	4
0024	0210	BMC EDSON RANGE ANNEX	38
0024	0269	BMC YUMA	50
0024	1657	BMC CAMP DELMAR MCB	10
0024	1659	BMC SAN ONOFRE MCB	33
0024	6216	TRICARE OUTPATIENT-OCEANSIDE	47
0026	0026	NBHC PORT HUENEME	946
0028	0028	NH LEMOORE	933
0028	0319	NBHC FALLON	152
0029	0029	NMC SAN DIEGO	809
0029	0230	NBHC MCRD SAN DIEGO	35
0029	0232	BMC MCAS MIRAMAR	82
0029	0239	NBHC EL CENTRO	11
0029	0409	SD E COUNTY PRIMARY CARE CLIN	26
0029	0414	BMA NALF SAN CLEMENTE	1
0029	0701	NBHC NAVSTA SAN DIEGO	82
0029	6207	TRICARE OUTPATIENT-CLAIREMONT	158
0030	0030	NH TWENTYNINE PALMS	1107
0030	0212	NBHC NAVWPNCEN CHINA LAKE	82
0032	0032	EVANS ACH-FT. CARSON	294
0032	1526	CIV EMP HLTH CLINIC-PUEBLO	1
0032	7293	TMC 10-FT. CARSON	193
0032	7300	TMC 9-FT. CARSON	160
0032	7301	WARRIOR CLINIC-FT. CARSON	411
0033	0033	10th MED GROUP-USAF ACADEMY CO	881
0037	0037	WALTER REED AMC-WASHINGTON DC	689
0037	0256	DILORENZO TRICARE HEALTH CLIN	475
0037	7298	DILORENZO TRICARE HLTH CLN ARL	60
0038	0038	NH PENSACOLA	507
0038	0107	NBHC NSA MID-SOUTH	95
0038	0260	NBHC NAS PENSACOLA	108
0038	0261	NBHC MILTON WHITING FIELD	60
0038	0262	NBHC NATTC PENSACOLA	24
0038	0265	NBHC NAVCOASTSYSC PANAMA CITY	24
0038	0297	NACC NEW ORLEANS	26
0038	0316	NBHC GULFPORT	130
0038	0317	NBHC MERIDIAN	29
0038	0436	NBHC NAS BELLE CHASE	55

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
0038	0513	NBHC NTTC PENSACOLA	15
0038	0654	NBHC PASCAGOULA	1
0038	1990	BMC NAVSUPPACT EAST BANK	23
0039	0039	NH JACKSONVILLE	603
0039	0266	NBHC NAS JACKSONVILLE	139
0039	0275	NBHC ALBANY	27
0039	0276	NBHC ATHENS	16
0039	0277	NBHC MARIETTA	49
0039	0337	NBHC KINGS BAY	138
0039	0517	NBHC KEY WEST	79
0042	0042	96th MED GRP-EGLIN	896
0043	0043	325th MED GRP-TYNDALL	875
0045	0045	6th MED GRP-MACDILL	899
0046	0046	45th MED GRP-PATRICK	764
0047	0047	EISENHOWER AMC-FT. GORDON	494
0047	0273	AHC FT. MCPHERSON	176
0047	1550	TMC-4-STOCKADE-FT. GORDON	208
0047	7197	CONNELLY HLTH CLINIC-FT.GORDON	67
0047	7239	SOUTHCOM CLINIC	63
0047	8924	RODRIGUEZ ARMY HEALTH CLINIC	44
0048	0048	MARTIN ACH-FT. BENNING	608
0048	1315	CTMC-FT. BENNING	247
0048	1316	WINDER FPC-FT. BENNING	165
0048	1551	TMC-1-FT. BENNING	2
0048	1552	TMC-2-FT. BENNING	7
0048	1555	TMC-5-FT. BENNING	32
0049	0049	WINN ACH-FT. STEWART	264
0049	0272	TUTTLE AHC-HUNTER ARMY AIRFLD	311
0049	7443	LLOYD C. HAWKS TMC	508
0051	0051	78th MED GRP-ROBINS	908
0052	0052	TRIPLER AMC-FT SHAFTER	614
0052	0437	SCHOFIELD BARRACKS AHC	188
0052	0534	TMC-1-SCHOF 25th-SCHOFIELD BKS	363
0053	0053	366th MED GRP-MOUNTAIN HOME	1042
0055	0055	375th MED GRP-SCOTT	901
0056	0056	NHC GREAT LAKES	710
0056	1660	NBHC NCTC INPR GREAT LAKES	126
0056	1959	NBHC NTC GREAT LAKES	118
0057	0057	IRWIN ACH-FT. RILEY	404
0057	1539	AVIATION CLINIC-FT. RILEY	128
0057	7289	CTMC-FT. RILEY	545
0057	7337	CALDWELL CLINIC	55
0058	0058	MUNSON AHC-FT. LEAVENWORTH	798
0058	7297	RICHARDS-GEBAUR CL-KANSAS CITY	122
0060	0060	BLANCHFIELD ACH-FT. CAMPBELL	361
0060	1506	AVIATION MEDICINE CLINIC	169
0060	7307	LA POINTE HEALTH CLINIC	601
0061	0061	IRELAND ACH-FT. KNOX	853
0061	0290	ROCK ISLAND ARSENAL AHC	33
0061	1237	TMC CONTRACT SPARTA-FT. MCCOY	88
0061	6017	CAMP ATTERBURY OUTPATIENT CLIN	102
0061	7198	NELSON MEDICAL CLINIC-FT.KNOX	5
0062	0062	2nd MED GRP-BARKSDALE	977
0064	0064	BAYNE-JONES ACH-FT. POLK	1094
0066	0066	779th MED GRP-ANDREWS	965

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
0067	0067	NNMC BETHESDA	685
0067	0301	NBHC INDIAN HEAD	21
0067	0322	BMC COLTS NECK EARLE	22
0067	0347	BMC WILLOW GROVE	98
0067	0386	NBHC DAHLGREN	51
0067	0401	BMC LAKEHURST	11
0067	0404	BMC SUGAR GROVE	6
0067	0522	NBHC ANDREWS AFB	45
0067	0703	NBHC WASHINGTON NAVY YARD	134
0068	0068	NHC PATUXENT RIVER	961
0069	0069	KIMBROUGH AMB CAR CEN-FT MEADE	517
0069	0308	KIRK AHC-ABERDEEN PRVNG GD	132
0069	0309	BARQUIST ARMY HEALTH CLINIC	114
0069	0352	DUNHAM AHC-CARLISLE BARRACKS	177
0069	0545	OHC EDGEWOOD ARS	24
0073	0073	81st MED GRP-KEESLER	981
0074	0074	14th MED GRP-COLUMBUS	1093
0075	0075	L. WOOD ACH-FT. LEONARD WOOD	1093
0076	0076	509th MED GRP-WHITEMAN	966
0077	0077	341st MED GRP-MALMSTROM	1011
0078	0078	55th MED GRP-OFFUTT	884
0079	0079	99th MED GRP-O'CALLAGHAN HOSP	866
0083	0083	377th MED GRP-KIRTLAND	830
0086	0081	PATTERSON AHC-FT. MONMOUTH	162
0086	0086	KELLER ACH-WEST POINT	399
0086	1815	MOLOGNE TMC	301
0086	7154	MILLS TROOP CLINIC-FT. DIX	371
0089	0089	WOMACK AMC-FT. BRAGG	283
0089	7143	ROBINSON CLINIC-FT. BRAGG	338
0089	7286	JOEL CLINIC-FT. BRAGG	182
0089	7294	CLARK CLINIC-FT. BRAGG	389
0091	0091	NH CAMP LEJEUNE	1201
0091	0333	BMC MCAS NEW RIVER	34
0091	1662	BMC CAMP GEIGER MCB	15
0091	1663	BMC CAMP JOHNSON MCB	11
0091	1664	BMC COURTHOUSE BAY MCB	27
0091	1992	BMC BLDG 15 MCB CAMP LEJEUNE	30
0092	0092	NHC CHERRY POINT	864
0094	0094	5th MED GRP-MINOT	1076
0095	0095	88th MED GRP-WRIGHT-PATTERSON	810
0096	0096	72nd MED GRP-TINKER	1008
0098	0098	REYNOLDS ACH-FT. SILL	1110
0100	0035	NBHC GROTON	324
0100	0100	NAVAL HLTH CLINIC NEW ENGLAND	319
0100	0299	NBHC NAS BRUNSWICK	152
0100	0321	NBHC PORTSMOUTH	117
0100	0328	NBHC SARATOGA SPRINGS	168
0101	0101	20th MED GRP-SHAW	1039
0103	0103	NHC CHARLESTON	129
0103	0511	NBHC WPNSTA CHARLESTON	985
0104	0104	NH BEAUFORT	937
0104	0358	NBHC MCRD PARRIS ISLAND	178
0104	0360	NBHC MCAS BEAUFORT	37
0105	0105	MONCRIEF ACH-FT. JACKSON	1084
0108	0108	WILLIAM BEAUMONT AMC-FT. BLISS	220

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
0108	0327	AHC MCAFEE-WHITE SANDS MSL RAN	20
0108	1481	SOLDIER FAMILY MED CLIN BIGGS	147
0108	1617	TMC MED EXAM-FT. BLISS	672
0109	0109	BROOKE AMC-FT. SAM HOUSTON	856
0110	0110	DARNALL AMC-FT. HOOD	137
0110	1592	MONROE CONSOLIDATED-FT. HOOD	269
0110	1597	TMC-10-FT. HOOD	40
0110	1599	TMC-12-FT. HOOD	74
0110	1601	TMC-14-FT. HOOD	19
0110	6014	CHARLES MOORE HLTH CLN-FT HOOD	282
0110	6076	WEST FORT HOOD CLINIC	60
0110	7236	BENNETT FAM CARE CLINIC-HOOD	373
0112	0112	7th MED GRP-DYESS	1083
0113	0113	82nd MED GRP-SHEPPARD	892
0117	0117	59th MED WING-LACKLAND	704
0118	0118	NHC CORPUS CHRISTI	515
0118	0369	NBHC KINGSVILLE	112
0118	0370	NBHC FORT WORTH	288
0118	0656	NBHC INGLESIDE	153
0119	0119	75th MED GRP-HILL	939
0120	0120	1st MED GRP-LANGLEY	1010
0121	0121	MCDONALD AHC-FT. EUSTIS	767
0121	0372	MONROE AHC-FT. MONROE	115
0121	0464	AHC FT. STORY	85
0122	0122	KENNER AHC-FT. LEE	928
0123	0123	DEWITT ACH-FT. BELVOIR	418
0123	0390	ANDREW RADER AHC-FT. MYER	94
0123	6200	FAMILY HEALTH CENTER FAIRFAX	114
0123	6201	FAMILY HEALTH CENTER WOODBRIDG	193
0124	0124	NMC PORTSMOUTH	856
0124	0380	NBHC NSY NORFOLK	3
0124	0381	NBHC YORKTOWN	43
0124	0382	NBHC DAM NECK	67
0124	0519	NBHC CHESAPEAKE	24
0124	6214	TRICARE OUTPATIENT CL VA BEACH	115
0124	6221	TRICARE OUTPATIENT CHESAPEAKE	83
0125	0125	MADIGAN AMC-FT. LEWIS	391
0125	0247	MONTEREY AHC	110
0125	1485	US ARMY HEALTH CLN-MCCHORD AFB	26
0125	1646	NISQUALLY FAM MED CL-FT. LEWIS	348
0125	1649	OKUBO FAM PRACT CLIN-FT LEWIS	173
0126	0126	NH BREMERTON	692
0126	0398	NBHC PUGET SOUND	7
0126	1656	NBHC SUBASE BANGOR	166
0126	7138	NHCL EVERETT	105
0127	0127	NH OAK HARBOR	1064
0128	0128	92nd MED GRP-FAIRCHILD	878
0129	0129	90th MED GRP-F.E. WARREN	1061
0131	0131	WEED ACH-FT. IRWIN	1181
0131	0206	YUMA PROVING GROUND AHC	30
0231	0231	NBHC NAS NORTH ISLAND	1182
0248	0248	61st MED GROUP-LOS ANGELES	1071
0252	0252	21st MED GRP-PETERSON	916
0280	0280	NHC HAWAII	681
0280	0284	NBHC NAVCAMS EASTPAC	90

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
0280	0285	BMC MCAS KANEOHE BAY	246
0280	1987	NBHC MCB CAMP H.M. SMITH	57
0306	0306	NHC ANNAPOLIS	441
0306	0525	NBHC BANCROFT HALL	749
0310	0310	66th MED GRP-HANSCOM	1035
0330	0330	GUTHRIE AHC-FT. DRUM	317
0330	7113	CONNOR CTMC	952
0364	0364	17th MED GRP-GOODFELLOW	1004
0366	0366	12th MED GRP-RANDOLPH	765
0378	0378	NBHC LITTLE CREEK	927
0385	0385	NHC QUANTICO	735
0385	1670	BMC OCS BROWN FIELD	95
0385	1671	NBHC THE BASIC SCHOOL	241
0387	0387	NBHC OCEANA	974
0405	0405	NBHC MAYPORT	936
0407	0407	NBHC NTC SAN DIEGO	924
0508	0508	NBHC NAVSTA SEWELLS	1482
0606	0606	HEIDELBERG MEDDAC	337
0606	1003	AHC MANNHEIM	237
0606	7152	AHC COLEMAN	123
0606	8987	AHC PATCH BKS	350
0606	8995	AHC HANAU	28
0606	8998	AHC DARMSTADT	22
0607	0607	LANDSTUHL REGIONAL MEDCEN	220
0607	0611	VICENZA MEDICAL SERVICES CNTR	161
0607	0614	AHC SHAPE	63
0607	1126	AHC BAUMHOLDER	296
0607	1128	AHC KAISERSLAUTERN	104
0607	1147	AHC WIESBADEN	229
0607	1154	AHC LIVORNO	22
0607	8977	AHC BRUSSELS	23
0607	8992	AHC DEXHEIM	5
0609	0609	BAVARIA MEDDAC	14
0609	1013	AHC BAMBERG	178
0609	1014	AHC ILLESHEIM	63
0609	1015	AHC KATTERBACH	150
0609	1016	AHC GRAFENWOEHR	236
0609	1017	AHC VILSECK	290
0609	1019	AHC HOHENFELS	132
0609	1124	AHC SCHWEINFURT	225
0612	0612	BRIAN ALLGOOD ACH-SEOUL	318
0612	1156	USAHC CAMP STANLEY	39
0612	1157	USAHC CAMP CASEY	261
0612	8903	USAHC CAMP HUMPHREYS	187
0612	8907	USAHC-CAMP WALKER	106
0612	8912	USAHC-CAMP RED CLOUD	97
0612	8913	USAHC-CAMP CARROLL	85
0612	8916	USAHC-YONGSAN	305
0612	8917	USAHC-CAMP LONG	13
0620	0620	NH GUAM-AGANA	827
0620	0871	BMC NAVSTA GUAM	168
0621	0621	NH OKINAWA	1146
0621	0861	BMC MCAS FUTENMA	8
0621	0862	BMC EVANS-CAMP FOSTER	60
0621	1269	BMC CAMP KINSER	32

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
0621	7032	BMC CAMP BUSH/COURTNEY	56
0621	7033	BMC CAMP HANSEN	3
0622	0622	NH YOKOSUKA	667
0622	0625	BMC IWAKUNI	191
0622	0852	NBHC COMFLEACT SASEBO	192
0622	0853	NBHC NAF ATSUGI	207
0622	7288	BMA HARIO SASEBO JP	7
0622	8934	NBHC NSF DIEGO GARCIA	14
0622	8938	BMC YOKOHOMA	7
0622	8939	BMC CHINHEA	18
0633	0633	48th MED GRP-LAKENHEATH	903
0633	0653	422 ABS MED FLT-CROUGHTON	71
0633	0814	423RD ABS OL-A-RAF UPWOOD	122
0633	7234	MENWITH HILL MEDICAL CENTER	47
0804	0804	18th MED GRP-KADENA AB	1229
0805	0799	470 MED FLT-GEILENKIRCHEN	235
0805	0805	52nd MED GROUP-SPANGDAHLEM	978
0806	0806	435th MEDICAL GROUP-RAMSTEIN	1229
1350	1350	37th MED GROUP	337
6215	6215	TRICARE OUTPATIENT-CHULA VISTA	531
7139	7139	1st SPEC OPS MED GRP-HURLBURT	1102
9001	0034	USCG CLINIC NEW LONDON	78
9001	0036	436th MED GRP-DOVER	304
9001	0037	WALTER REED AMC-WASHINGTON DC	351
9001	0047	EISENHOWER AMC-FT. GORDON	1
9001	0050	23rd MED GRP-MOODY	2
9001	0055	375th MED GRP-SCOTT	4
9001	0059	22nd MED GRP-MCCONNELL	1
9001	0060	BLANCHFIELD ACH-FT. CAMPBELL	275
9001	0061	IRELAND ACH-FT. KNOX	204
9001	0066	779th MED GRP-ANDREWS	282
9001	0067	NNMC BETHESDA	421
9001	0069	KIMBROUGH AMB CAR CEN-FT MEADE	1
9001	0081	PATTERSON AHC-FT. MONMOUTH	4
9001	0084	49th MED GRP-HOLLOMAN	3
9001	0085	27th SPEC OPS MED GRP-CANNON	2
9001	0086	KELLER ACH-WEST POINT	199
9001	0089	WOMACK AMC-FT. BRAGG	620
9001	0090	4th MED GRP-SEYMOUR JOHNSON	361
9001	0091	NH CAMP LEJEUNE	478
9001	0093	319th MED GRP-GRAND FORKS	2
9001	0095	88th MED GRP-WRIGHT-PATTERSON	189
9001	0097	97th MED GRP-ALTUS	1
9001	0106	28th MED GRP-ELLSWORTH	4
9001	0114	47th MED GRP-LAUGHLIN	2
9001	0120	1st MED GRP-LANGLEY	464
9001	0121	MCDONALD AHC-FT. EUSTIS	2
9001	0122	KENNER AHC-FT. LEE	3
9001	0123	DEWITT ACH-FT. BELVOIR	548
9001	0124	NMC PORTSMOUTH	1437
9001	0130	USCG CLINIC KODIAK	1
9001	0287	15th MED GRP-HICKAM	1
9001	0310	66th MED GRP-HANSCOM	1
9001	0326	305th MED GRP-MCGUIRE	514
9001	0330	GUTHRIE AHC-FT. DRUM	1

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9001	0335	43RD MEDICAL GROUP-POPE	226
9001	0338	71st MED GRP-VANCE	2
9001	0352	DUNHAM AHC-CARLISLE BARRACKS	1
9001	0356	437th MED GRP-CHARLESTON	4
9001	0390	ANDREW RADER AHC-FT. MYER	4
9001	0395	62nd MED SQUAD-MCCHORD	2
9001	0413	579TH MED GROUP-BOLLING	225
9001	0418	USCG CLINIC ALAMEDA	5
9001	0419	USCG CLINIC PETALUMA	6
9001	0420	USCG CLINIC DISTRICT OF COLUMB	83
9001	0421	USCG CLINIC AIR STATION MIAMI	2
9001	0424	USCG CLINIC BALTIMORE	31
9001	0425	USCG CLINIC CAPE COD	43
9001	0426	USCG CLINIC BOSTON	48
9001	0427	USCG CLINIC TRAVERSE CITY	7
9001	0428	USCG CLINIC CAPE MAY	120
9001	0430	USCG CLINIC ELIZABETH CITY	47
9001	0431	USCG CLINIC ASTORIA	2
9001	0432	USCG CLINIC PORTSMOUTH	99
9001	0433	USCG CLINIC YORKTOWN	27
9001	0434	USCG CLINIC PORT ANGELES	1
9001	0435	USCG CLINIC SEATTLE	2
9001	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	3
9001	0615	NH GUANTANAMO BAY	4
9001	0617	NH NAPLES	1
9001	0618	NH ROTA	6
9001	0624	NH SIGONELLA	8
9001	0629	65th MED GRP-LAJES	2
9001	0635	39th MED GROUP-INCIRLIK	2
9001	0637	8th MED GRP-KUNSAN AB	1
9001	0638	51st MED GRP-OSAN AB	4
9001	0639	35th MED GRP-MISAWA	5
9001	0640	374th MED GRP-YOKOTA AB	1
9001	0781	NORTHEAST WEST VIRGINIA	68
9001	0782	WESTERN WEST VIRGINIA	296
9001	0783	EASTERN MISSOURI-ST LOUIS AREA	287
9001	0789	IOWA-QUAD CITIES AREA	37
9001	0808	31st MED GRP-AVIANO	3
9001	0855	NBHC NAVSUPPO LA MADDALENA	1
9001	0874	NBHC GAETA	1
9001	0907	CONNECTICUT	473
9001	0908	DELAWARE	162
9001	0914	ILLINOIS	1766
9001	0915	INDIANA	1043
9001	0918	KENTUCKY	396
9001	0920	MAINE	446
9001	0921	MARYLAND	329
9001	0922	MASSACHUSETTS	542
9001	0923	MICHIGAN	1072
9001	0930	NEW HAMPSHIRE	201
9001	0931	NEW JERSEY	671
9001	0933	NEW YORK	1439
9001	0934	NORTH CAROLINA	1228
9001	0936	OHIO	1182
9001	0939	PENNSYLVANIA	1680

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9001	0940	RHODE ISLAND	156
9001	0946	VERMONT	102
9001	0950	WISCONSIN	737
9001	0953	PUERTO RICO	1
9001	0969	CANADA	1
9001	0970	OTHER CARIBBEAN	1
9001	0971	CENTRAL AMERICA	2
9001	0983	OTHER PACIFIC	2
9001	0995	NORTHERN VIRGINIA	155
9001	0996	SOUTHERN VIRGINIA	658
9001	0999	UNKNOWN LOCATION	191
9001	1153	BMC CAPODICHINO	2
9001	1170	NBHC NSA BAHRAIN	44
9001	1179	NBHC NAVWPNSFAC ST. MAWGAN	1
9001	1350	37th MED GROUP	2
9001	5191	USCG CLINIC ST PETERSBURG	1
9001	5195	USCG CLINIC DETROIT	15
9001	5196	USCG CLINIC NEW YORK	45
9001	6200	FAMILY HEALTH CENTER FAIRFAX	3
9001	6201	FAMILY HEALTH CENTER WOODBRIDG	4
9001	6898	OTHER PACIFIC NON TGRO	1
9001	6899	OTHER LATIN AMERICA NON TGRO	1
9001	7042	USCG CLINIC BORINQUEN	3
9001	7043	USCG CLINIC HONOLULU	1
9001	7082	USCG CLINIC GALVESTON	1
9001	7200	460th MED GRP-BUCKLEY AFB	4
9001	7286	JOEL CLINIC-FT. BRAGG	5
9001	7294	CLARK CLINIC-FT. BRAGG	4
9002	0015	9th MED GRP-BEALE	1
9002	0034	USCG CLINIC NEW LONDON	10
9002	0036	436th MED GRP-DOVER	8
9002	0037	WALTER REED AMC-WASHINGTON DC	1
9002	0038	NH PENSACOLA	235
9002	0039	NH JACKSONVILLE	674
9002	0042	96th MED GRP-EGLIN	293
9002	0045	6th MED GRP-MACDILL	3
9002	0047	EISENHOWER AMC-FT. GORDON	188
9002	0048	MARTIN ACH-FT. BENNING	207
9002	0049	WINN ACH-FT. STEWART	343
9002	0050	23rd MED GRP-MOODY	423
9002	0059	22nd MED GRP-MCCONNELL	12
9002	0062	2nd MED GRP-BARKSDALE	1
9002	0064	BAYNE-JONES ACH-FT. POLK	77
9002	0069	KIMBROUGH AMB CAR CEN-FT MEADE	1
9002	0073	81st MED GRP-KEESLER	154
9002	0074	14th MED GRP-COLUMBUS	2
9002	0079	99th MED GRP-O'CALLAGHAN HOSP	1
9002	0084	49th MED GRP-HOLLOMAN	2
9002	0085	27th SPEC OPS MED GRP-CANNON	4
9002	0090	4th MED GRP-SEYMOUR JOHNSON	9
9002	0093	319th MED GRP-GRAND FORKS	2
9002	0097	97th MED GRP-ALTUS	177
9002	0098	REYNOLDS ACH-FT. SILL	164
9002	0101	20th MED GRP-SHAW	2
9002	0104	NH BEAUFORT	89

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9002	0105	MONCRIEF ACH-FT. JACKSON	285
9002	0106	28th MED GRP-ELLSWORTH	3
9002	0109	BROOKE AMC-FT. SAM HOUSTON	364
9002	0110	DARNALL AMC-FT. HOOD	741
9002	0112	7th MED GRP-DYESS	1
9002	0113	82nd MED GRP-SHEPPARD	3
9002	0114	47th MED GRP-LAUGHLIN	151
9002	0117	59th MED WING-LACKLAND	223
9002	0203	354th MED GRP-EIELSON	1
9002	0287	15th MED GRP-HICKAM	5
9002	0326	305th MED GRP-MCGUIRE	19
9002	0335	43RD MEDICAL GROUP-POPE	13
9002	0338	71st MED GRP-VANCE	153
9002	0356	437th MED GRP-CHARLESTON	451
9002	0364	17th MED GRP-GOODFELLOW	1
9002	0395	62nd MED SQUAD-MCCHORD	4
9002	0413	579TH MED GROUP-BOLLING	20
9002	0416	USCG CLINIC MOBILE	88
9002	0417	USCG CLINIC KETCHIKAN	1
9002	0418	USCG CLINIC ALAMEDA	4
9002	0419	USCG CLINIC PETALUMA	4
9002	0420	USCG CLINIC DISTRICT OF COLUMB	3
9002	0421	USCG CLINIC AIR STATION MIAMI	32
9002	0422	USCG CLINIC CLEARWATER	54
9002	0423	USCG CLINIC NEW ORLEANS	57
9002	0424	USCG CLINIC BALTIMORE	1
9002	0425	USCG CLINIC CAPE COD	4
9002	0426	USCG CLINIC BOSTON	1
9002	0428	USCG CLINIC CAPE MAY	20
9002	0430	USCG CLINIC ELIZABETH CITY	3
9002	0432	USCG CLINIC PORTSMOUTH	3
9002	0434	USCG CLINIC PORT ANGELES	2
9002	0435	USCG CLINIC SEATTLE	1
9002	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	4
9002	0615	NH GUANTANAMO BAY	4
9002	0617	NH NAPLES	3
9002	0618	NH ROTA	3
9002	0624	NH SIGONELLA	4
9002	0637	8th MED GRP-KUNSAN AB	6
9002	0638	51st MED GRP-OSAN AB	5
9002	0639	35th MED GRP-MISAWA	4
9002	0640	374th MED GRP-YOKOTA AB	4
9002	0787	GEORGIA-FORMER NOBLE CATCHMENT	13
9002	0802	36th MED GRP-ANDERSEN	2
9002	0808	31st MED GRP-AVIANO	5
9002	0858	BMC NAVSUPPACT SOUDA BAY	2
9002	0901	ALABAMA	1492
9002	0904	ARKANSAS	929
9002	0911	GEORGIA	1875
9002	0925	MISSISSIPPI	861
9002	0937	OKLAHOMA	1015
9002	0941	SOUTH CAROLINA	892
9002	0943	TENNESSEE	1438
9002	0953	PUERTO RICO	5
9002	0969	CANADA	1

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9002	0971	CENTRAL AMERICA	1
9002	0983	OTHER PACIFIC	2
9002	0987	EASTERN FLORIDA	2301
9002	0988	WESTERN FLORIDA	215
9002	0989	EASTERN LOUISIANA	492
9002	0990	WESTERN LOUISIANA	415
9002	0993	EASTERN TEXAS	3826
9002	0999	UNKNOWN LOCATION	212
9002	1153	BMC CAPODICHINO	2
9002	1170	NBHC NSA BAHRAIN	17
9002	1350	37th MED GROUP	618
9002	5191	USCG CLINIC ST PETERSBURG	27
9002	5196	USCG CLINIC NEW YORK	1
9002	6899	OTHER LATIN AMERICA NON TGRO	2
9002	7042	USCG CLINIC BORINQUEN	4
9002	7043	USCG CLINIC HONOLULU	2
9002	7046	USCG CLINIC SAN PEDRO	2
9002	7048	USCG CLINIC BASE MIAMI	56
9002	7082	USCG CLINIC GALVESTON	38
9002	7200	460th MED GRP-BUCKLEY AFB	4
9003	0005	BASSETT ACH-FT. WAINWRIGHT	54
9003	0006	3rd MED GRP-ELMENDORF	123
9003	0009	56th MED GRP-LUKE	4
9003	0014	60th MED GRP-TRAVIS	427
9003	0015	9th MED GRP-BEALE	299
9003	0024	NH CAMP PENDLETON	826
9003	0028	NH LEMOORE	169
9003	0029	NMC SAN DIEGO	1266
9003	0030	NH TWENTYNINE PALMS	61
9003	0032	EVANS ACH-FT. CARSON	388
9003	0033	10th MED GROUP-USAF ACADEMY CO	76
9003	0034	USCG CLINIC NEW LONDON	5
9003	0036	436th MED GRP-DOVER	5
9003	0048	MARTIN ACH-FT. BENNING	1
9003	0052	TRIPLER AMC-FT SHAFTER	536
9003	0053	366th MED GRP-MOUNTAIN HOME	28
9003	0057	IRWIN ACH-FT. RILEY	202
9003	0059	22nd MED GRP-MCCONNELL	295
9003	0073	81st MED GRP-KEESLER	1
9003	0075	L. WOOD ACH-FT. LEONARD WOOD	90
9003	0077	341st MED GRP-MALMSTROM	1
9003	0078	55th MED GRP-OFFUTT	3
9003	0079	99th MED GRP-O'CALLAGHAN HOSP	285
9003	0084	49th MED GRP-HOLLOMAN	269
9003	0085	27th SPEC OPS MED GRP-CANNON	186
9003	0090	4th MED GRP-SEYMOUR JOHNSON	1
9003	0093	319th MED GRP-GRAND FORKS	201
9003	0094	5th MED GRP-MINOT	1
9003	0097	97th MED GRP-ALTUS	2
9003	0106	28th MED GRP-ELLSWORTH	330
9003	0108	WILLIAM BEAUMONT AMC-FT. BLISS	260
9003	0114	47th MED GRP-LAUGHLIN	1
9003	0125	MADIGAN AMC-FT. LEWIS	683
9003	0126	NH BREMERTON	182
9003	0127	NH OAK HARBOR	83

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9003	0128	92nd MED GRP-FAIRCHILD	1
9003	0130	USCG CLINIC KODIAK	57
9003	0131	WEED ACH-FT. IRWIN	29
9003	0203	354th MED GRP-EIELSON	195
9003	0287	15th MED GRP-HICKAM	444
9003	0326	305th MED GRP-MCGUIRE	7
9003	0335	43RD MEDICAL GROUP-POPE	6
9003	0338	71st MED GRP-VANCE	3
9003	0356	437th MED GRP-CHARLESTON	2
9003	0395	62nd MED SQUAD-MCCHORD	208
9003	0407	NBHC NTC SAN DIEGO	3
9003	0413	579TH MED GROUP-BOLLING	6
9003	0416	USCG CLINIC MOBILE	1
9003	0417	USCG CLINIC KETCHIKAN	17
9003	0418	USCG CLINIC ALAMEDA	127
9003	0419	USCG CLINIC PETALUMA	71
9003	0420	USCG CLINIC DISTRICT OF COLUMB	3
9003	0426	USCG CLINIC BOSTON	1
9003	0428	USCG CLINIC CAPE MAY	34
9003	0430	USCG CLINIC ELIZABETH CITY	5
9003	0431	USCG CLINIC ASTORIA	34
9003	0432	USCG CLINIC PORTSMOUTH	2
9003	0434	USCG CLINIC PORT ANGELES	19
9003	0435	USCG CLINIC SEATTLE	95
9003	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	1
9003	0615	NH GUANTANAMO BAY	3
9003	0618	NH ROTA	7
9003	0624	NH SIGONELLA	3
9003	0629	65th MED GRP-LAJES	1
9003	0635	39th MED GROUP-INCIRLIK	3
9003	0637	8th MED GRP-KUNSAN AB	7
9003	0638	51st MED GRP-OSAN AB	23
9003	0639	35th MED GRP-MISAWA	8
9003	0640	374th MED GRP-YOKOTA AB	2
9003	0784	WESTERN MISSOURI	886
9003	0785	ARIZONA-EXCLUDING YUMA AREA	1247
9003	0786	YUMA ARIZONA AREA	228
9003	0788	IOWA-EXCLUDING QUAD CITIES	601
9003	0802	36th MED GRP-ANDERSEN	5
9003	0808	31st MED GRP-AVIANO	3
9003	0855	NBHC NAVSUPPO LA MADDALENA	1
9003	0858	BMC NAVSUPPACT SOUDA BAY	2
9003	0902	ALASKA	145
9003	0906	COLORADO	599
9003	0912	HAWAII	107
9003	0917	KANSAS	672
9003	0924	MINNESOTA	1063
9003	0927	MONTANA	279
9003	0928	NEBRASKA	378
9003	0929	NEVADA	202
9003	0932	NEW MEXICO	434
9003	0935	NORTH DAKOTA	208
9003	0938	OREGON	787
9003	0942	SOUTH DAKOTA	285
9003	0945	UTAH	608

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9003	0948	WASHINGTON	1096
9003	0951	WYOMING	193
9003	0953	PUERTO RICO	1
9003	0969	CANADA	1
9003	0973	NORTHERN IDAHO	49
9003	0974	SOUTHERN IDAHO	322
9003	0985	NORTHERN CALIFORNIA	1194
9003	0986	SOUTHERN CALIFORNIA	1770
9003	0994	WESTERN TEXAS	6
9003	0999	UNKNOWN LOCATION	217
9003	1153	BMC CAPODICHINO	4
9003	1170	NBHC NSA BAHRAIN	41
9003	1350	37th MED GROUP	5
9003	1485	US ARMY HEALTH CLN-MCCHORD AFB	1
9003	5191	USCG CLINIC ST PETERSBURG	1
9003	5195	USCG CLINIC DETROIT	1
9003	5196	USCG CLINIC NEW YORK	1
9003	5197	USCG CLINIC SAN JUAN	1
9003	6207	TRICARE OUTPATIENT-CLAIREMONT	1
9003	6215	TRICARE OUTPATIENT-CHULA VISTA	2
9003	7043	USCG CLINIC HONOLULU	63
9003	7044	USCG CLINIC JUNEAU	19
9003	7045	USCG CLINIC NORTH BEND	17
9003	7046	USCG CLINIC SAN PEDRO	27
9003	7047	USCG CLINIC SITKA	20
9003	7048	USCG CLINIC BASE MIAMI	3
9003	7082	USCG CLINIC GALVESTON	2
9003	7083	USCG CLINIC HUMBOLDT BAY	13
9003	7200	460th MED GRP-BUCKLEY AFB	280
9004	0015	9th MED GRP-BEALE	6
9004	0036	436th MED GRP-DOVER	2
9004	0050	23rd MED GRP-MOODY	7
9004	0059	22nd MED GRP-MCCONNELL	4
9004	0084	49th MED GRP-HOLLOMAN	8
9004	0085	27th SPEC OPS MED GRP-CANNON	6
9004	0090	4th MED GRP-SEYMOUR JOHNSON	4
9004	0097	97th MED GRP-ALTUS	3
9004	0114	47th MED GRP-LAUGHLIN	3
9004	0203	354th MED GRP-EIELSON	1
9004	0287	15th MED GRP-HICKAM	8
9004	0326	305th MED GRP-MCGUIRE	10
9004	0335	43RD MEDICAL GROUP-POPE	9
9004	0338	71st MED GRP-VANCE	3
9004	0356	437th MED GRP-CHARLESTON	7
9004	0395	62nd MED SQUAD-MCCHORD	4
9004	0413	579TH MED GROUP-BOLLING	8
9004	0419	USCG CLINIC PETALUMA	1
9004	0420	USCG CLINIC DISTRICT OF COLUMB	1
9004	0424	USCG CLINIC BALTIMORE	1
9004	0425	USCG CLINIC CAPE COD	1
9004	0432	USCG CLINIC PORTSMOUTH	1
9004	0435	USCG CLINIC SEATTLE	1
9004	0606	HEIDELBERG MEDDAC	128
9004	0607	LANDSTUHL REGIONAL MEDCEN	592
9004	0610	BG CRAWFORD SAMS AHC-CAMP ZAMA	128

GEOGRAPHIC SAMPLING STRATA	DMIS ID	FACILITY NAME	# SAMPLED IN 2009
9004	0612	BRIAN ALLGOOD ACH-SEOUL	583
9004	0615	NH GUANTANAMO BAY	280
9004	0617	NH NAPLES	309
9004	0618	NH ROTA	261
9004	0620	NH GUAM-AGANA	244
9004	0621	NH OKINAWA	448
9004	0622	NH YOKOSUKA	344
9004	0624	NH SIGONELLA	369
9004	0629	65th MED GRP-LAJES	123
9004	0633	48th MED GRP-LAKENHEATH	182
9004	0635	39th MED GROUP-INCIRLIK	234
9004	0637	8th MED GRP-KUNSAN AB	303
9004	0638	51st MED GRP-OSAN AB	1074
9004	0639	35th MED GRP-MISAWA	747
9004	0640	374th MED GRP-YOKOTA AB	698
9004	0802	36th MED GRP-ANDERSEN	479
9004	0808	31st MED GRP-AVIANO	706
9004	0858	BMC NAVSUPPACT SOUDA BAY	38
9004	0874	NBHC GAETA	32
9004	0953	PUERTO RICO	2757
9004	0957	GERMANY	1477
9004	0958	GREECE	26
9004	0959	ICELAND	4
9004	0960	ITALY	179
9004	0961	JAPAN	149
9004	0963	PHILIPPINES	103
9004	0964	PORTUGAL	30
9004	0965	KOREA	165
9004	0966	SPAIN	99
9004	0967	TURKEY	98
9004	0968	UNITED KINGDOM	146
9004	0969	CANADA	16
9004	0970	OTHER CARIBBEAN	18
9004	0971	CENTRAL AMERICA	155
9004	0972	SOUTH AMERICA	117
9004	0975	U.S. VIRGIN ISLANDS	119
9004	0976	AFRICA	65
9004	0977	MIDEAST	310
9004	0978	SOUTHEAST ASIA	204
9004	0979	BELGIUM	92
9004	0982	OTHER EUROPE	207
9004	0983	OTHER PACIFIC	257
9004	0999	UNKNOWN LOCATION	2399
9004	1153	BMC CAPODICHINO	200
9004	1170	NBHC NSA BAHRAIN	273
9004	1179	NBHC NAVWPNSFAC ST. MAWGAN	19
9004	1350	37th MED GROUP	7
9004	5196	USCG CLINIC NEW YORK	1
9004	5197	USCG CLINIC SAN JUAN	46
9004	6897	OTHER EUROPE NON TGRO	8
9004	6898	OTHER PACIFIC NON TGRO	3
9004	6899	OTHER LATIN AMERICA NON TGRO	1
9004	7042	USCG CLINIC BORINQUEN	44
9004	7200	460th MED GRP-BUCKLEY AFB	6
			203000

APPENDIX D

RESPONSE RATE TABLES – QUARTERS I-IV AND COMBINED ANNUAL

TABLE D.1

RESPONSE RATES BY EMAIL EARLY NOTIFICATION INDICATOR

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
N/A	32.1	51.8	31.8	51.5	30.5	51.2	29.4	48.7	30.9	50.8
No	7.4	5.9	7.4	6.0	7.3	6.4	5.0	4.4	6.9	5.8
Yes	23.8	22.0	22.6	20.7	20.3	18.4	18.3	16.9	21.2	19.5

RR=Unweighted
RR$_W$=Weighted

TABLE D.2

RESPONSE RATES BY ENROLLMENT AND BENEFICIARY

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
Active duty	22.1	19.9	21.0	18.6	19.1	16.8	17.2	15.3	19.8	17.6
Active duty fam,Prime,civ PCM	24.3	23.6	22.9	22.5	22.6	21.4	19.7	19.1	22.2	21.6
Active duty fam,Prime,mil PCM	22.8	22.0	21.8	21.2	20.2	20.2	20.1	19.0	21.2	20.6
Active duty fam,non-enrollee	15.3	16.6	14.4	15.1	15.8	16.7	14.0	15.7	14.9	16.0
Retired,65+,enrolled	80.3	80.8	85.8	85.9	79.6	80.1	74.0	74.2	80.0	80.3
Retired,65+,non-enrollee	75.0	74.9	73.6	73.6	75.7	75.8	70.5	70.5	73.7	73.7
Retired,<65,civ PCM	50.2	50.2	48.9	49.4	47.3	49.8	46.2	48.1	48.1	49.4
Retired,<65,mil PCM	48.6	48.7	49.7	50.5	45.0	44.7	45.3	46.4	47.2	47.6
Retired,<65,non-enrollee	41.4	43.8	41.2	43.9	40.7	43.7	39.4	42.1	40.7	43.4
TRICARE Reserve Select	34.0	34.0	38.9	38.9	30.0	30.0	31.1	31.1	33.5	33.2

RR=Unweighted
RR$_W$=Weighted

TABLE D.3

RESPONSE RATES BY XOCONUS

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
Europe	20.3	19.8	20.7	22.8	18.1	17.3	16.8	17.3	18.9	19.3
In Conus/Missing Region	27.9	45.1	26.9	44.5	25.6	43.9	24.0	41.6	26.1	43.7
Latin America	22.8	43.9	23.4	40.8	24.2	48.6	21.8	27.2	23.0	40.0
Western Pacific	21.5	21.3	20.9	22.7	18.4	19.4	17.7	18.4	19.6	20.5

RR=Unweighted
RR$_W$=Weighted

TABLE D.4

RESPONSE RATES BY SEX

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
Female	28.0	44.7	27.3	45.3	26.4	44.4	25.4	42.8	26.8	44.3
Male	26.2	43.5	25.2	42.0	23.2	41.5	21.3	38.4	24.0	41.4

RR=Unweighted
RR$_W$=Weighted

TABLE D.5

RESPONSE RATES BY CONUS/OCONUS INDICATOR

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
In USA	27.9	45.2	27.1	44.7	25.6	43.8	24.1	41.5	26.2	43.8
Invalid/Missing	25.9	38.5	19.9	33.2	22.9	46.0	20.0	47.0	22.1	41.2
Not in USA	21.1	23.2	21.1	24.9	19.0	21.7	17.8	19.0	19.7	22.2

RR=Unweighted
RR$_W$=Weighted

TABLE D.6

RESPONSE RATES BY BENEFICIARY CATEGORY

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
Active Duty and Guard/Reserve	22.1	20.1	21.1	19.0	19.1	17.0	17.3	15.8	19.9	18.0
Dependent of Active Duty & Guard/Reserve	19.9	21.5	18.8	20.5	18.8	20.0	17.6	18.6	18.7	20.1
Retiree/Depend of Retir/Surviv/Other 65+	75.5	75.5	74.6	74.6	76.1	76.2	70.8	70.8	74.3	74.3
Retiree/Depend of Retir/Surviv/Other <65	45.9	46.5	46.1	46.8	43.6	45.5	43.0	44.6	44.7	45.9

RR=Unweighted
RR$_W$=Weighted

TABLE D.7

RESPONSE RATES BY CATCHMENT AREA

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
37th Med Group	30.9	36.3	32.8	40.6	26.3	28.3	29.7	38.9	30.5	36.1
Agana	26.2	30.1	25.0	22.1	25.4	22.8	21.9	25.2	24.6	24.8
Andrews AFB	27.3	43.5	27.0	36.1	28.6	39.6	22.3	30.6	26.2	37.4
Barksdale AFB	28.2	41.5	29.7	34.7	28.6	33.5	26.0	31.5	28.2	35.5
Brooke AMC-Ft. Sam Houston	30.1	44.4	33.4	51.8	29.0	51.1	27.8	48.6	30.1	49.0
Davis-Monthan AFB	29.4	34.7	29.3	34.3	25.7	31.7	23.9	30.8	27.1	32.9
Dyess AFB	23.9	36.1	24.3	37.3	24.2	28.2	24.0	29.5	24.1	33.1
Edwards AFB	30.3	33.1	26.4	29.5	27.1	31.4	23.5	26.6	26.8	30.1
Eglin AFB	34.9	54.5	36.0	49.2	24.9	35.5	23.2	39.0	29.9	45.4
Elmendorf AFB/Ft Wainwright	33.2	42.1	26.6	42.6	24.2	35.4	25.8	38.2	27.4	39.6
Evans ACH-Ft. Carson	14.7	25.2	21.8	41.0	17.9	37.1	19.0	31.0	18.5	34.3
F.E. Warren AFB	25.9	27.5	24.0	27.3	25.4	29.2	20.4	26.3	23.9	27.6
Fairchild AFB	29.2	34.6	32.1	38.8	28.9	43.9	24.5	30.2	28.6	37.1
Ft Wainwright	17.3	19.4	14.3	14.6	18.0	29.4	12.6	12.5	15.5	19.3
Ft. Belvoir	38.4	49.5	32.2	40.7	25.9	32.9	34.1	41.8	32.6	41.2
Ft. Benning	16.0	25.1	14.4	23.4	15.3	26.7	13.0	25.5	14.7	25.3
Ft. Bliss	19.4	26.0	17.7	30.1	19.8	27.0	17.7	33.1	18.6	29.2
Ft. Bragg	22.0	27.3	21.3	26.9	20.4	28.5	20.9	25.5	21.1	27.1
Ft. Campbell	16.7	23.0	18.2	29.1	18.5	21.7	11.6	18.3	16.1	22.9

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
Ft. Drum	15.6	16.2	15.6	15.6	9.6	9.6	11.1	15.4	13.0	14.2
Ft. Eustis	26.5	35.8	24.0	28.7	18.7	29.2	20.3	26.4	22.3	30.1
Ft. Gordon	26.1	45.4	21.1	45.2	22.5	35.6	19.3	30.7	22.2	39.3
Ft. Hood	16.8	23.9	15.0	20.9	15.2	24.7	15.5	22.7	15.6	23.1
Ft. Huachuca	24.0	27.4	22.7	28.9	21.3	26.7	21.6	28.7	22.4	27.9
Ft. Irwin	16.7	16.9	14.6	15.6	14.1	15.2	13.6	17.4	14.7	16.2
Ft. Jackson	22.9	42.5	21.4	47.8	18.6	39.2	17.8	35.4	20.1	41.5
Ft. Knox	21.0	30.3	20.7	31.5	28.0	48.9	19.7	32.1	22.4	36.1
Ft. Leavenworth	31.9	37.1	31.3	36.0	27.6	30.0	24.1	27.3	28.7	32.6
Ft. Lee	20.6	32.4	21.8	26.1	25.1	37.1	21.6	35.2	22.3	32.9
Ft. Leonard Wood	16.9	26.5	16.9	34.1	17.4	29.1	11.3	23.4	15.7	28.3
Ft. Meade	26.9	34.3	27.4	37.8	22.0	25.8	20.7	27.3	24.3	31.4
Ft. Polk	13.5	17.2	17.4	41.0	16.6	18.0	14.0	22.6	15.4	25.7
Ft. Riley	17.9	20.4	18.8	23.3	17.9	20.9	18.5	27.8	18.3	23.2
Ft. Ritchie	28.5	32.3	27.4	28.4	25.7	27.3	26.8	27.8	27.1	28.9
Ft. Rucker	26.9	31.8	28.5	32.4	15.8	19.6	25.1	31.4	24.1	28.8
Ft. Sill	18.5	27.4	18.1	26.5	16.9	33.0	17.0	24.1	17.6	28.2
Ft. Stewart	17.5	30.4	15.0	20.0	18.6	30.0	13.4	26.6	16.1	27.0
Heidelberg Meddac	18.8	19.0	21.7	24.5	19.3	21.4	18.2	19.4	19.4	20.9
Hill AFB	28.1	30.9	27.9	32.7	26.1	35.0	23.2	28.1	26.3	31.8
Kadena AFB	21.9	20.9	24.6	26.3	17.0	16.2	17.7	18.3	20.3	20.4
Keesler AFB	31.3	51.3	25.1	35.8	20.3	36.6	20.1	37.9	24.1	39.9
Kirtland AFB	36.0	39.3	39.5	44.8	27.0	29.6	25.0	29.1	31.9	35.9
Lackland AFB	24.4	53.1	20.9	44.7	19.3	35.9	20.6	49.2	21.9	45.4
Landstuhl	15.9	17.2	17.9	23.1	12.6	13.4	10.6	18.5	14.3	18.1
Langley AFB	30.2	47.9	24.4	34.3	23.4	37.4	21.8	38.4	25.1	39.8
Laughlin AFB/Sheppard AFB	28.8	44.4	35.7	50.7	28.0	45.5	23.9	25.4	29.1	42.2
Luke AFB	34.8	37.8	28.4	42.1	23.8	36.9	32.5	37.1	29.9	38.6
MacDill AFB	36.4	50.4	31.7	37.1	32.6	44.3	25.1	26.0	31.5	39.4
Madigan AMC-Ft. Lewis	26.8	41.0	24.4	41.6	22.9	33.9	20.6	38.3	23.8	38.7
Maxwell AFB	29.9	38.7	36.5	41.4	37.2	41.4	27.3	29.3	32.8	37.7
Mountain Home AFB	30.1	43.5	21.1	43.4	23.2	25.8	21.2	37.9	23.8	38.3
NACC Portsmouth NH	29.5	31.0	34.6	33.2	28.6	32.5	31.9	47.1	31.1	36.4
NBHC Mayport	27.3	30.4	30.1	34.5	21.6	22.0	28.3	31.3	26.9	29.6

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
NBHC Nas North Island	31.6	32.1	27.1	26.4	24.7	24.5	23.1	23.7	26.6	26.7
NBHC Ntc San Diego	29.6	33.4	28.4	49.9	27.1	34.7	28.4	44.5	28.4	41.4
NH 29-Palms	15.2	15.5	15.4	24.3	14.5	21.2	12.1	21.5	14.3	20.7
NH Beaufort	17.4	38.2	11.9	20.7	16.9	35.0	17.4	36.2	15.8	32.1
NH Bremerton	25.2	37.6	23.0	36.1	21.5	34.1	25.8	37.0	23.8	36.2
NH Camp Lejeune	17.0	22.7	21.3	28.3	16.9	23.0	14.1	19.3	17.3	23.4
NH Camp Pendleton/Ft Irwin	22.2	34.7	20.2	32.8	18.9	27.7	19.2	31.2	20.1	31.6
NH Charleston	24.1	29.4	22.5	28.0	20.8	26.8	21.6	24.5	22.2	27.2
NH Cherry Point	22.2	31.7	22.3	24.9	22.7	26.4	23.0	27.0	22.5	27.5
NH Corpus Christi	27.9	30.9	26.8	31.6	24.3	26.0	23.9	26.4	25.7	28.7
NH Great Lakes	29.2	31.9	31.3	33.4	25.6	30.0	28.2	32.2	28.6	31.9
NH Guantanamo Bay	20.7	21.4	17.4	15.6	18.8	18.5	21.6	20.4	19.6	18.9
NH Jacksonville/Key West	26.5	42.1	27.2	42.0	25.6	41.9	24.8	38.9	26.0	41.2
NH LeMoore	29.2	46.5	25.5	39.0	25.4	28.6	24.1	50.2	26.0	42.3
NH Oak Harbor	27.5	38.4	27.5	35.1	20.4	36.8	18.9	30.3	23.6	35.1
NH Patuxent River	30.0	33.8	37.7	42.0	31.1	37.4	29.1	32.8	32.0	36.5
NH Pensacola	31.1	49.8	28.3	48.9	27.5	45.3	20.1	39.9	26.8	46.0
NH Yokosuka/other Asian	20.2	21.4	24.4	24.3	21.2	22.8	21.4	22.8	21.8	22.8
NMC Portsmouth	28.4	40.3	24.1	35.1	21.6	30.4	20.8	28.5	23.8	33.5
NMC San Diego	23.1	30.4	23.1	33.6	24.6	33.9	23.4	31.3	23.6	32.3
NMCL Quantico	25.5	30.9	21.8	23.6	23.0	28.8	23.1	27.0	23.3	27.6
NNMC Bethesda	35.3	54.6	26.1	44.8	32.5	43.6	29.1	41.6	30.7	46.2
Naples	18.0	18.4	19.2	18.8	16.4	15.0	17.6	16.5	17.8	17.2
Naval Health Care New England	24.7	28.4	29.5	32.2	29.1	30.4	23.2	27.9	26.6	29.7
Nellis AFB	31.6	42.9	30.0	49.7	26.3	39.5	27.3	51.3	28.8	45.8
Norfolk	30.5	29.8	32.3	31.7	22.7	22.0	25.6	24.9	27.8	27.1
Offutt AFB	26.6	31.5	35.9	43.7	31.6	41.4	29.9	34.1	31.1	37.8
Okinawa	14.4	13.4	14.5	15.8	11.2	10.6	12.6	13.4	13.1	13.3
Out of catchment-north	30.5	53.1	28.6	51.7	30.2	54.4	28.1	51.0	29.3	52.5
Out of catchment-overseas	23.8	37.9	21.6	34.3	21.9	44.0	20.5	39.9	21.9	39.0
Out of catchment-south	29.9	54.7	30.6	55.9	29.8	57.1	26.6	51.2	29.2	54.7
Out of catchment-west	34.5	58.2	34.1	57.3	34.5	58.6	30.9	54.5	33.5	57.1
Patrick AFB	34.7	41.4	36.8	46.4	25.7	30.7	38.6	46.5	33.9	41.2
Pearl Harbor	34.5	35.5	29.8	30.1	23.9	24.7	27.3	27.7	28.8	29.5

	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
Peterson AFB	34.8	39.7	27.4	29.8	31.6	36.4	31.1	35.8	31.2	35.5
Port Hueneme	35.0	34.6	28.6	31.6	28.6	31.6	30.6	30.9	30.7	32.2
RAF Lakenheath/other Europe	24.0	23.9	30.1	31.2	21.4	21.2	20.5	21.5	24.1	24.5
Randolph AFB	28.2	36.0	35.2	38.4	26.2	30.8	35.4	41.6	31.3	36.7
Redstone Ars/Ft McClellan	40.1	56.6	35.4	38.9	30.8	34.5	31.0	31.3	34.3	40.5
Robins AFB	28.1	32.8	30.1	37.4	22.6	25.4	25.1	29.5	26.5	31.3
Scott AFB	38.7	45.8	39.0	52.0	27.8	28.5	30.2	40.6	34.0	42.2
Seoul	17.0	17.9	13.6	14.5	12.9	13.6	9.8	9.6	13.3	13.9
Shaw AFB	26.4	40.4	28.7	44.3	24.7	30.2	24.9	29.9	26.2	36.8
Spangdahlem/Ramstein AFB	25.2	24.5	25.3	25.3	22.4	22.5	20.4	19.8	23.4	23.0
Tinker AFB	27.1	31.4	26.6	31.5	23.9	28.3	22.6	26.1	25.0	29.3
Travis AFB	33.6	50.0	31.3	46.6	25.9	42.6	27.3	50.5	29.5	47.5
TRICARE Outpat-Chula Vista	46.6	51.1	39.3	42.3	33.8	45.3	34.6	33.0	38.6	42.8
Tripler AMC	21.5	26.2	19.4	31.9	17.7	24.0	15.6	29.1	18.5	27.9
Tyndall AFB	32.1	35.3	29.2	33.1	29.2	31.1	22.9	25.9	28.3	31.3
USAF Acad. Hospital	31.0	52.3	36.2	43.0	32.7	48.9	28.7	38.3	32.1	47.2
USCG Clinic Detroit	.	.	50.0	51.5	50.0	50.0	25.0	25.0	31.3	31.8
USCG Group St Petersburg Clinic	33.3	31.5	25.0	24.9	27.3	27.3	42.9	42.9	31.0	30.5
Virginia Beach	28.6	33.0	27.9	33.3	23.3	26.8	19.3	25.5	24.8	29.6
Walter Reed AMC	30.7	44.8	31.2	43.3	27.8	42.7	27.0	36.3	29.2	42.1
West Point	23.4	26.0	23.3	36.6	14.9	28.5	17.8	23.4	19.8	28.6
Wright Patterson AFB	36.8	56.4	36.8	59.6	35.1	47.3	35.5	44.3	36.1	52.3
Wuerzburg	19.1	17.2	15.9	19.3	18.3	15.4	12.9	11.1	16.6	15.8
Yokota AB	24.5	23.2	21.3	28.2	18.5	18.8	19.2	19.7	20.8	22.7

RR=Unweighted
RR$_W$=Weighted

TABLE D.8

RESPONSE RATES BY SERVICE AFFILIATION

| | Q1 2009 | | Q2 2009 | | Q3 2009 | | Q4 2009 | | COMBINED | |
	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Administrative	30.1	27.3	25.9	25.4	26.9	21.9	21.6	21.4	25.4	24.1
Air Force	29.1	42.1	28.6	43.1	26.0	37.1	24.4	36.2	27.1	39.7
Army	20.8	31.3	19.9	31.8	18.1	29.2	17.4	29.9	19.1	30.5
Coast Guard	31.7	36.3	30.2	33.1	26.9	26.5	28.0	27.6	29.1	30.8
Missing/Unknown	43.3	57.1	40.0	58.5	35.1	58.8	35.2	54.7	38.1	57.0
Navy	24.9	34.3	24.0	32.3	22.1	32.5	21.3	29.9	23.1	32.2
Noncatchment	29.1	59.4	28.3	57.7	29.5	61.6	26.5	54.8	28.3	58.4
Support Contractor	33.8	44.6	32.5	44.4	30.9	43.5	28.6	43.3	31.3	43.9
USTF	44.4	62.8	51.9	69.5	44.7	61.1	42.8	55.2	45.9	62.1

RR=Unweighted
RR_W=Weighted

TABLE D.9

RESPONSE RATES BY BRANCH OF SERVICE

| | Q1 2009 | | Q2 2009 | | Q3 2009 | | Q4 2009 | | COMBINED | |
	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Air Force	31.0	50.5	30.6	51.0	28.4	50.0	26.5	47.8	29.1	49.8
Army	23.3	39.8	22.1	39.2	21.5	39.4	19.8	36.7	21.7	38.8
Coast Guard	30.7	42.3	32.5	44.7	29.8	41.8	28.8	34.7	30.4	40.8
Marine Corps	19.9	34.2	19.6	31.2	17.2	30.2	17.5	31.2	18.5	31.7
Navy	29.2	46.8	28.0	45.7	26.5	44.6	25.3	41.9	27.3	44.8
Other/Unknown	48.9	56.1	43.4	50.0	42.6	42.2	45.3	64.7	44.9	53.2

RR=Unweighted
RR_W=Weighted

TABLE D.10

RESPONSE RATES BY TRICARE NEXT GENERATION OF CONTRACTS REGION GROUPING

| | Q1 2009 | | Q2 2009 | | Q3 2009 | | Q4 2009 | | COMBINED | |
	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Missing Data	25.9	38.5	19.9	33.2	22.9	46.0	20.0	47.0	22.1	41.2
North	28.0	44.3	27.0	42.5	25.7	42.4	24.4	39.7	26.3	42.2
Overseas	21.1	23.2	21.1	24.9	19.0	21.7	17.8	19.0	19.7	22.2
South	27.4	46.9	27.1	46.9	25.2	46.1	23.7	42.7	25.9	45.6
West	28.4	44.2	27.0	44.6	25.9	42.9	24.2	42.1	26.4	43.4

RR=Unweighted
RR_W=Weighted

TABLE D.11

RESPONSE RATES BY COMBINED GEOGRAPHIC AREA

TNEX Region	Catchment	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
		RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
North	Andrews AFB	27.3	43.5	27.0	36.1	28.6	39.6	22.3	30.6	26.2	37.4
North	Ft. Belvoir	38.4	49.5	32.2	40.7	25.9	32.9	34.1	41.8	32.6	41.2
North	Ft. Bragg	22.0	27.3	21.3	26.9	20.4	28.5	20.9	25.5	21.1	27.1
North	Ft. Campbell	16.7	23.0	18.2	29.1	18.5	21.7	11.6	18.3	16.1	22.9
North	Ft. Drum	15.6	16.2	15.6	15.6	9.6	9.6	11.1	15.4	13.0	14.2
North	Ft. Eustis	26.5	35.8	24.0	28.7	18.7	29.2	20.3	26.4	22.3	30.1
North	Ft. Knox	21.0	30.3	20.7	31.5	28.0	48.9	19.7	32.1	22.4	36.1
North	Ft. Lee	20.6	32.4	21.8	26.1	25.1	37.1	21.6	35.2	22.3	32.9
North	Ft. Meade	26.9	34.3	27.4	37.8	22.0	25.8	20.7	27.3	24.3	31.4
North	Ft. Ritchie	28.5	32.3	27.4	28.4	25.7	27.3	26.8	27.8	27.1	28.9
North	Langley AFB	30.2	47.9	24.4	34.3	23.4	37.4	21.8	38.4	25.1	39.8
North	NACC Portsmouth NH	29.5	31.0	34.6	33.2	28.6	32.5	31.9	47.1	31.1	36.4
North	NH Camp Lejeune	17.0	22.7	21.3	28.3	16.9	23.0	14.1	19.3	17.3	23.4
North	NH Cherry Point	22.2	31.7	22.3	24.9	22.7	26.4	23.0	27.0	22.5	27.5
North	NH Great Lakes	29.2	31.9	31.3	33.4	25.6	30.0	28.2	32.2	28.6	31.9
North	NH Patuxent River	30.0	33.8	37.7	42.0	31.1	37.4	29.1	32.8	32.0	36.5
North	NMC Portsmouth	28.4	40.3	24.1	35.1	21.6	30.4	20.8	28.5	23.8	33.5
North	NMCL Quantico	25.5	30.9	21.8	23.6	23.0	28.8	23.1	27.0	23.3	27.6
North	NNMC Bethesda	35.3	54.6	26.1	44.8	32.5	43.6	29.1	41.6	30.7	46.2
North	Naval Health Care New England	24.7	28.4	29.5	32.2	29.1	30.4	23.2	27.9	26.6	29.7
North	Norfolk	30.5	29.8	32.3	31.7	22.7	22.0	25.6	24.9	27.8	27.1
North	Out of catchment-north	30.5	53.1	28.6	51.7	30.2	54.4	28.6	51.2	29.5	52.6
North	Scott AFB	38.7	45.8	39.0	52.0	27.8	28.5	30.2	40.6	34.0	42.2
North	USCG Clinic Detroit	.	.	50.0	51.5	50.0	50.0	25.0	25.0	31.3	31.8
North	Virginia Beach	28.6	33.0	27.9	33.3	23.3	26.8	19.3	25.5	24.8	29.6
North	Walter Reed AMC	30.7	44.8	31.2	43.3	27.8	42.7	27.0	36.3	29.2	42.1
North	West Point	23.4	26.0	23.3	36.6	14.9	28.5	17.8	23.4	19.8	28.6
North	Wright Patterson AFB	36.8	56.4	36.8	59.6	35.1	47.3	35.5	44.3	36.1	52.3
Overseas	Agana	26.2	30.1	25.0	22.1	25.4	22.8	21.9	25.2	24.6	24.8
Overseas	Heidelberg Meddac	18.8	19.0	21.7	24.5	19.3	21.4	18.2	19.4	19.4	20.9
Overseas	Kadena AFB	21.9	20.9	24.6	26.3	17.0	16.2	17.7	18.3	20.3	20.4
Overseas	Landstuhl	15.9	17.2	17.9	23.1	12.6	13.4	10.6	18.5	14.3	18.1
Overseas	NH Guantanamo Bay	20.7	21.4	17.4	15.6	18.8	18.5	21.6	20.4	19.6	18.9
Overseas	NH Yokosuka/other Asian	20.2	21.4	24.4	24.3	21.2	22.8	21.4	22.8	21.8	22.8
Overseas	Naples	18.0	18.4	19.2	18.8	16.4	15.0	17.6	16.5	17.8	17.2
Overseas	Okinawa	14.4	13.4	14.5	15.8	11.2	10.6	12.6	13.4	13.1	13.3
Overseas	Out of catchment-overseas	22.8	38.5	22.3	36.2	21.5	40.8	20.5	25.8	21.7	35.4
Overseas	RAF Lakenheath/other Europe	24.0	23.9	30.1	31.2	21.4	21.2	20.5	21.5	24.1	24.5
Overseas	Seoul	17.0	17.9	13.6	14.5	12.9	13.6	9.8	9.6	13.3	13.9
Overseas	Spangdahlem/Ramstein AFB	25.2	24.5	25.3	25.3	22.4	22.5	20.4	19.8	23.4	23.0

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TNEX Region	Catchment	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
		RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
Overseas	Wuerzburg	19.1	17.2	15.9	19.3	18.3	15.4	12.9	11.1	16.6	15.8
Overseas	Yokota AB	24.5	23.2	21.3	28.2	18.5	18.8	19.2	19.7	20.8	22.7
South	37th Med Group	30.9	36.3	32.8	40.6	26.3	28.3	29.7	38.9	30.5	36.1
South	Barksdale AFB	28.2	41.5	29.7	34.7	28.6	33.5	26.0	31.5	28.2	35.5
South	Brooke AMC-Ft. Sam Houston	30.1	44.4	33.4	51.8	29.0	51.1	27.8	48.6	30.1	49.0
South	Dyess AFB	23.9	36.1	24.3	37.3	24.2	28.2	24.0	29.5	24.1	33.1
South	Eglin AFB	34.9	54.5	36.0	49.2	24.9	35.5	23.2	39.0	29.9	45.4
South	Ft. Benning	16.0	25.1	14.4	23.4	15.3	26.7	13.0	25.5	14.7	25.3
South	Ft. Gordon	26.1	45.4	21.1	45.2	22.5	35.6	19.3	30.7	22.2	39.3
South	Ft. Hood	16.8	23.9	15.0	20.9	15.2	24.7	15.5	22.7	15.6	23.1
South	Ft. Jackson	22.9	42.5	21.4	47.8	18.6	39.2	17.8	35.4	20.1	41.5
South	Ft. Polk	13.5	17.2	17.4	41.0	16.6	18.0	14.0	22.6	15.4	25.7
South	Ft. Rucker	26.9	31.8	28.5	32.4	15.8	19.6	25.1	31.4	24.1	28.8
South	Ft. Sill	18.5	27.4	18.1	26.5	16.9	33.0	17.0	24.1	17.6	28.2
South	Ft. Stewart	17.5	30.4	15.0	20.0	18.6	30.0	13.4	26.6	16.1	27.0
South	Keesler AFB	31.3	51.3	25.1	35.8	20.3	36.6	20.1	37.9	24.1	39.9
South	Lackland AFB	24.4	53.1	20.9	44.7	19.3	35.9	20.6	49.2	21.9	45.4
South	Laughlin AFB/Sheppard AFB	28.8	44.4	35.7	50.7	28.0	45.5	23.9	25.4	29.1	42.2
South	MacDill AFB	36.4	50.4	31.7	37.1	32.6	44.3	25.1	26.0	31.5	39.4
South	Maxwell AFB	29.9	38.7	36.5	41.4	37.2	41.4	27.3	29.3	32.8	37.7
South	NBHC Mayport	27.3	30.4	30.1	34.5	21.6	22.0	28.3	31.3	26.9	29.6
South	NH Beaufort	17.4	38.2	11.9	20.7	16.9	35.0	17.4	36.2	15.8	32.1
South	NH Charleston	24.1	29.4	22.5	28.0	20.8	26.8	21.6	24.5	22.2	27.2
South	NH Corpus Christi	27.9	30.9	26.8	31.6	24.3	26.0	23.9	26.4	25.7	28.7
South	NH Jacksonville/Key West	26.5	42.1	27.2	42.0	25.6	41.9	24.8	38.9	26.0	41.2
South	NH Pensacola	31.1	49.8	28.3	48.9	27.5	45.3	20.1	39.9	26.8	46.0
South	Out of catchment-south	29.9	54.7	30.6	55.9	29.8	57.1	26.9	51.4	29.3	54.8
South	Patrick AFB	34.7	41.4	36.8	46.4	25.7	30.7	38.6	46.5	33.9	41.2
South	Randolph AFB	28.2	36.0	35.2	38.4	26.2	30.8	35.4	41.6	31.3	36.7
South	Redstone Ars/Ft McClellan	40.1	56.6	35.4	38.9	30.8	34.5	31.0	31.3	34.3	40.5
South	Robins AFB	28.1	32.8	30.1	37.4	22.6	25.4	25.1	29.5	26.5	31.3
South	Shaw AFB	26.4	40.4	28.7	44.3	24.7	30.2	24.9	29.9	26.2	36.8
South	Tinker AFB	27.1	31.4	26.6	31.5	23.9	28.3	22.6	26.1	25.0	29.3
South	Tyndall AFB	32.1	35.3	29.2	33.1	29.2	31.1	22.9	25.9	28.3	31.3
South	USCG Group St Petersburg Clinic	33.3	31.5	25.0	24.9	27.3	27.3	42.9	42.9	31.0	30.5
West	Davis-Monthan AFB	29.4	34.7	29.3	34.3	25.7	31.7	23.9	30.8	27.1	32.9
West	Edwards AFB	30.3	33.1	26.4	29.5	27.1	31.4	23.5	26.6	26.8	30.1
West	Elmendorf AFB/Ft Wainwright	33.2	42.1	26.6	42.6	24.2	35.4	25.8	38.2	27.4	39.6
West	Evans ACH-Ft. Carson	14.7	25.2	21.8	41.0	17.9	37.1	19.0	31.0	18.5	34.3
West	F.E. Warren AFB	25.9	27.5	24.0	27.3	25.4	29.2	20.4	26.3	23.9	27.6
West	Fairchild AFB	29.2	34.6	32.1	38.8	28.9	43.9	24.5	30.2	28.6	37.1
West	Ft Wainwright	17.3	19.4	14.3	14.6	18.0	29.4	12.6	12.5	15.5	19.3

TNEX Region	Catchment	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
		RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$	RR	RR$_w$
West	Ft. Bliss	19.4	26.0	17.7	30.1	19.8	27.0	17.7	33.1	18.6	29.2
West	Ft. Huachuca	24.0	27.4	22.7	28.9	21.3	26.7	21.6	28.7	22.4	27.9
West	Ft. Irwin	16.7	16.9	14.6	15.6	14.1	15.2	13.6	17.4	14.7	16.2
West	Ft. Leavenworth	31.9	37.1	31.3	36.0	27.6	30.0	24.1	27.3	28.7	32.6
West	Ft. Leonard Wood	16.9	26.5	16.9	34.1	17.4	29.1	11.3	23.4	15.7	28.3
West	Ft. Riley	17.9	20.4	18.8	23.3	17.9	20.9	18.5	27.8	18.3	23.2
West	Hill AFB	28.1	30.9	27.9	32.7	26.1	35.0	23.2	28.1	26.3	31.8
West	Kirtland AFB	36.0	39.3	39.5	44.8	27.0	29.6	25.0	29.1	31.9	35.9
West	Luke AFB	34.8	37.8	28.4	42.1	23.8	36.9	32.5	37.1	29.9	38.6
West	Madigan AMC-Ft. Lewis	26.8	41.0	24.4	41.6	22.9	33.9	20.6	38.3	23.8	38.7
West	Mountain Home AFB	30.1	43.5	21.1	43.4	23.2	25.8	21.2	37.9	23.8	38.3
West	NBHC Nas North Island	31.6	32.1	27.1	26.4	24.7	24.5	23.1	23.7	26.6	26.7
West	NBHC Ntc San Diego	29.6	33.4	28.4	49.9	27.1	34.7	28.4	44.5	28.4	41.4
West	NH 29-Palms	15.2	15.5	15.4	24.3	14.5	21.2	12.1	21.5	14.3	20.7
West	NH Bremerton	25.2	37.6	23.0	36.1	21.5	34.1	25.8	37.0	23.8	36.2
West	NH Camp Pendleton/Ft Irwin	22.2	34.7	20.2	32.8	18.9	27.7	19.2	31.2	20.1	31.6
West	NH LeMoore	29.2	46.5	25.5	39.0	25.4	28.6	24.1	50.2	26.0	42.3
West	NH Oak Harbor	27.5	38.4	27.5	35.1	20.4	36.8	18.9	30.3	23.6	35.1
West	NMC San Diego	23.1	30.4	23.1	33.6	24.6	33.9	23.4	31.3	23.6	32.3
West	Nellis AFB	31.6	42.9	30.0	49.7	26.3	39.5	27.3	51.3	28.8	45.8
West	Offutt AFB	26.6	31.5	35.9	43.7	31.6	41.4	29.9	34.1	31.1	37.8
West	Out of catchment-west	34.4	58.1	34.1	57.3	34.5	58.6	31.2	54.7	33.6	57.2
West	Pearl Harbor	34.5	35.5	29.8	30.1	23.9	24.7	27.3	27.7	28.8	29.5
West	Peterson AFB	34.8	39.7	27.4	29.8	31.6	36.4	31.1	35.8	31.2	35.5
West	Port Hueneme	35.0	34.6	28.6	31.6	28.6	31.6	30.6	30.9	30.7	32.2
West	Travis AFB	33.6	50.0	31.3	46.6	25.9	42.6	27.3	50.5	29.5	47.5
West	TRICARE Outpat-Chula Vista	46.6	51.1	39.3	42.3	33.8	45.3	34.6	33.0	38.6	42.8
West	Tripler AMC	21.5	26.2	19.4	31.9	17.7	24.0	15.6	29.1	18.5	27.9
West	USAF Acad. Hospital	31.0	52.3	36.2	43.0	32.7	48.9	28.7	38.3	32.1	47.2

RR=Unweighted
RR$_W$=Weighted

TABLE D.12

RESPONSE RATES BY BENEFICIARY CATEGORY AND SEX

		Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
		RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
Active Duty and Guard/Reserve	Female	24.4	23.4	23.8	22.4	22.1	21.1	20.7	20.1	22.7	21.7
Active Duty and Guard/Reserve	Male	21.7	19.5	20.7	18.4	18.6	16.4	16.6	15.0	19.4	17.3
Dependent of Active Duty & Guard/Reserve	Female	20.8	22.5	19.7	21.4	19.9	20.9	18.7	19.4	19.8	21.1
Dependent of Active Duty & Guard/Reserve	Male	13.0	13.3	12.3	13.2	11.0	13.2	10.3	12.8	11.6	13.1
Retiree/Depend of Retir/Surviv/Other 65+	Female	71.8	71.7	71.8	71.9	73.2	73.3	67.8	67.7	71.1	71.1
Retiree/Depend of Retir/Surviv/Other 65+	Male	79.2	79.3	78.0	77.9	79.2	79.3	74.6	74.7	77.8	77.9
Retiree/Depend of Retir/Surviv/Other <65	Female	44.6	45.0	44.6	45.3	41.8	43.6	41.9	43.6	43.3	44.4
Retiree/Depend of Retir/Surviv/Other <65	Male	47.4	48.2	47.7	48.5	45.6	47.6	44.2	45.8	46.2	47.5

RR=Unweighted
RR$_W$=Weighted

TABLE D.13

RESPONSE RATES BY BENEFICIARY CATEGORY AND SERVICE

Beneficiary Category	Service	Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
		RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$	RR	RR$_W$
Active Duty and Guard/Reserve	Air Force	26.7	27.3	26.0	26.9	23.8	24.1	20.6	21.1	24.3	24.8
	Army	18.0	16.8	16.6	15.6	15.3	14.1	13.4	13.1	15.8	14.9
	Coast Guard	30.8	31.0	32.4	32.8	28.6	26.8	28.8	27.9	30.1	29.6
	Marine Corps	13.9	12.2	12.9	11.4	10.5	9.6	11.2	10.1	12.1	10.8
	Navy	23.5	22.1	22.5	20.4	20.2	19.0	19.2	17.3	21.3	19.7
	Other/Unknown	56.8	55.0	48.6	48.0	51.0	47.6	47.2	46.2	50.9	49.3
Dependent of Active Duty & Guard/Reserve	Air Force	22.8	23.9	22.0	23.6	21.1	22.3	20.4	22.4	21.6	23.0
	Army	17.3	19.3	15.8	18.0	16.2	17.5	15.0	15.8	16.1	17.6
	Coast Guard	21.8	24.5	24.8	26.3	24.3	25.9	23.7	25.8	23.6	25.6
	Marine Corps	18.3	20.4	18.9	19.3	17.9	19.4	16.1	17.7	17.8	19.2
	Navy	22.0	24.1	20.5	22.4	20.9	22.3	19.2	20.2	20.6	22.3
	Other/Unknown	32.8	29.2	28.9	22.1	32.1	33.7	32.5	29.2	31.5	27.9
Retiree/Depend of Retir/Surviv/Other 65+	Air Force	75.6	75.7	75.2	75.2	77.9	78.0	74.6	74.6	75.8	75.9
	Army	74.2	74.0	72.4	72.3	73.1	73.4	68.2	68.2	71.9	71.9
	Coast Guard	78.6	78.2	73.3	73.6	84.6	85.2	55.6	55.9	74.5	74.8
	Marine Corps	81.4	81.1	72.9	72.6	77.4	76.8	74.9	74.8	76.8	76.4
	Navy	75.7	75.9	77.7	78.0	77.3	77.4	68.3	68.3	74.8	74.9
	Other/Unknown	100.0	100.0	50.0	50.6	50.0	45.4	100.0	100.0	80.0	79.0
Retiree/Depend of Retir/Surviv/Other <65	Air Force	47.1	48.6	47.4	48.6	44.1	46.4	44.2	46.1	45.7	47.4
	Army	45.3	46.0	45.1	46.3	43.6	46.7	42.0	44.7	44.0	45.9
	Coast Guard	44.4	44.8	47.6	51.7	43.1	46.0	37.8	39.1	43.1	45.0
	Marine Corps	39.9	41.3	43.4	41.8	38.2	38.6	39.5	38.5	40.3	40.1
	Navy	46.7	45.9	46.0	46.1	44.3	44.2	43.9	44.5	45.2	45.2
	Other/Unknown	63.2	67.1	72.2	87.2	42.3	41.7	81.3	75.1	62.0	64.1

RR=Unweighted
RR$_W$=Weighted

TABLE D.14

RESPONSE RATES BY BENEFICIARY CATEGORY AND EARLY EMAIL NOTIFICATION INDICATOR

		Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
		RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
Active Duty and Guard/Reserve	NO	7.4	5.9	7.4	6.0	7.3	6.4	5.0	4.4	6.9	5.8
Active Duty and Guard/Reserve	YES	23.8	22.0	22.6	20.7	20.3	18.4	18.3	16.9	21.2	19.5
Dependent of Active Duty & Guard/Reserve	N/A	19.9	21.5	18.8	20.5	18.8	20.0	17.6	18.6	18.8	20.1
Retiree/Depend of Retir/Surviv/Other 65+	N/A	75.5	75.5	74.6	74.6	76.1	76.2	70.8	70.8	74.3	74.3
Retiree/Depend of Retir/Surviv/Other <65	N/A	45.9	46.5	46.1	46.8	43.6	45.5	43.0	44.6	44.7	45.9

TABLE D.15

RESPONSE RATES BY CONUS/OCONUS INDICATOR EARLY EMAIL NOTIFICATION INDICATOR

			Q1 2009		Q2 2009		Q3 2009		Q4 2009		COMBINED	
			RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w	RR	RR_w
In USA	Active Duty and Guard/Reserve	NO	7.4	5.9	7.5	6.0	7.6	6.6	5.1	4.5	7.0	5.8
In USA	Active Duty and Guard/Reserve	YES	24.1	22.2	23.0	20.9	20.6	18.5	18.5	17.0	21.5	19.6
In USA	Dependent of Active Duty & Guard/Reserve	N/A	20.7	21.8	19.5	20.4	19.6	20.3	18.6	18.8	19.6	20.3
In USA	Retiree/Depend of Retir/Surviv/Other 65+	N/A	76.5	76.6	75.8	75.9	76.4	76.5	71.3	71.2	75.0	75.0
In USA	Retiree/Depend of Retir/Surviv/Other <65	N/A	47.8	47.0	48.0	47.2	45.9	45.9	45.2	45.1	46.7	46.3
Invalid/Missing	Active Duty and Guard/Reserve	NO	5.1	4.4	2.1	2.6	.	.	4.3	3.4	3.0	2.7
Invalid/Missing	Active Duty and Guard/Reserve	YES	11.6	9.6	11.8	11.3	25.0	34.1	4.8	2.4	11.9	11.8
Invalid/Missing	Dependent of Active Duty & Guard/Reserve	N/A	17.8	20.6	12.4	10.5	11.5	10.0	10.7	15.0	12.9	14.2
Invalid/Missing	Retiree/Depend of Retir/Surviv/Other 65+	N/A	48.1	47.5	37.9	38.0	64.0	64.0	64.5	66.3	53.5	54.1
Invalid/Missing	Retiree/Depend of Retir/Surviv/Other <65	N/A	36.7	34.9	28.5	32.1	33.8	34.3	30.4	32.9	32.4	33.5
Not in USA	Active Duty and Guard/Reserve	NO	8.2	6.9	8.4	7.2	5.4	4.7	4.0	2.9	6.7	5.6
Not in USA	Active Duty and Guard/Reserve	YES	22.2	20.9	20.7	19.3	18.8	17.1	17.5	16.0	19.8	18.4
Not in USA	Dependent of Active Duty & Guard/Reserve	N/A	15.5	18.0	16.2	21.7	16.0	16.0	13.9	15.7	15.4	17.8
Not in USA	Retiree/Depend of Retir/Surviv/Other 65+	N/A	46.2	46.2	53.8	54.5	70.0	70.0	37.5	37.5	52.3	52.5
Not in USA	Retiree/Depend of Retir/Surviv/Other <65	N/A	32.5	32.1	36.1	37.5	28.9	31.0	30.4	30.9	31.9	32.9

APPENDIX E

TECHNICAL DESCRIPTION OF THE 2009 TRICARE BENEFICIARY REPORTS

The beneficiary reports will present 11 scores for each region and catchment area in the MHS and for the MHS overall. Scores will enable users to compare providers to national benchmarks in these areas: getting needed care; getting care quickly; how well doctors communicate; customer service; claims processing; rating of the health plan, health care, personal doctor, and specialist; preventive care standards; and health behavior. These scores are made up of three different types, described in Table E.1: CAHPS composites, ratings, and TMA standard composites. A trend page compares composites and ratings with values from previous quarters, calculates a quarterly trend, and tests the trend for statistical significance in the quarterly version of the beneficiary reports. In the annual version, results from 3 years are presented.

TABLE E.1

CONTENT OF THE 2009 TRICARE BENEFICIARY REPORTS

CAHPS COMPOSITES
The CAHPS composites group together survey responses to a set of related HCSDB questions taken from CAHPS. Scores expressed as CAHPS composites profile TRICARE beneficiaries' satisfaction with their ability to get needed care, the speed with which they receive care, interactions with their doctor, their experience with customer service representatives, and their experience with claims processing. Scores are presented in relation to national benchmarks.
SATISFACTION RATINGS
Scores expressed as ratings reflect beneficiaries' self-rated satisfaction with their health plan, health care, and personal providers. The scores, adjusted for patient age and health status, are presented relative to national benchmarks.
TMA STANDARD COMPOSITES
Two TMA standard composite scores are reported. One score is based on how the preventive care that beneficiaries received compares with Healthy People 2010 standards. Preventive care indicators to be combined are prenatal care, hypertension screening, mammography, and Pap smears. Another composite combines a non-smoking rate, the rate at which smokers are counseled to quit, and rate of non-obese BMI ratio.

Table E.2.1 lists the questions and response choices for the CAHPS 4.0 composites in the beneficiary reports. Question numbers refer to the CAHPS 4.0 Adult Questionnaire (Commercial). Response choices for each question within a composite are collapsed into three-item scales so that all composites have the same range. Along with the composites, mean responses to each question are presented and compared to national civilian benchmarks.

Four scores are based on respondents' ratings of health care and health care providers: health plan, health care, personal doctor, and specialist. These ratings are measures of overall beneficiary satisfaction. Questions about these aspects of care request beneficiaries to rate their health plan, health care, and physicians on a scale of 0 to 10, with 0 being the worst and 10 being the best. The rating score will be the mean. For the purpose of presentation, the means are multiplied by 100 so that the scores are presented on a scale of 0 to 100.

TABLE E.2.1

CAHPS 4.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT QUESTIONNAIRE CAHPS 4.0	GETTING NEEDED CARE	RESPONSE CHOICE
Q17	In the last 12 months, how often was it easy to get appointments with specialists?	Never Sometimes Usually Always
Q21	In the last 12 months, how often was it easy to get the care, tests, or treatment you thought you needed through your health plan?	Never Sometimes Usually Always
	GETTING CARE QUICKLY	
Q6	In the last 12 months, not counting times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed?	Never Sometimes Usually Always
Q4	In the last 12 months, when you needed care right away, how often did you get care as soon as you thought you needed?	Never Sometimes Usually Always
	HOW WELL DOCTORS COMMUNICATE	
Q12	In the last 12 months, how often did your personal doctor listen carefully to you?	Never Sometimes Usually Always
Q11	In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?	Never Sometimes Usually Always
Q13	In the last 12 months, how often did your personal doctor show respect for what you had to say?	Never Sometimes Usually Always
Q14	In the last 12 months, how often did your personal doctor spend enough time with you?	Never Sometimes Usually Always

ADULT QUESTIONNAIRE CAHPS 4.0	CUSTOMER SERVICE	RESPONSE CHOICE
Q23	In the last 12 months, how often did your health plan's customer service give you the information or help you needed?	Never Sometimes Usually Always
Q24	In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect?	Never Sometimes Usually Always

ADULT SUPPLEMENTAL QUESTIONNAIRE CAHPS 4.0	CLAIMS PROCESSING	
H14	In the last 12 months, how often did your health plan handle your claims quickly?	Never Sometimes Usually Always
H15	In the last 12 months, how often did your health plan handle your claims correctly?	Never Sometimes Usually Always

	RATING OF ALL HEALTH CARE	
Q8	Using any number from 0 to 10, where 0 is the worst health care possible and 10 is the best health care possible, what number would you use to rate all your health care in the last 12 months?	0 Worst health care possible 1 2 3 4 5 6 7 8 9 10 Best health care possible

ADULT QUESTIONNAIRE CAHPS 4.0	RATING OF HEALTH PLAN	RESPONSE CHOICE
Q27	Using any number from 0 to 10, where 0 is the worst health plan possible and 10 is the best health plan possible, what number would you use to rate your health plan?	0 Worst health plan possible 1 2 3 4 5 6 7 8 9 10 Best health plan possible
	RATING OF PERSONAL DOCTOR	
Q15	Using any number from 0 to 10, where 0 is the worst personal doctor or nurse possible and 10 is the best personal doctor or nurse possible, what number would you use to rate your personal doctor or nurse?	0 Worst personal doctor or nurse possible 1 2 3 4 5 6 7 8 9 10 Best personal doctor or nurse possible
	RATING OF SPECIALIST	
Q19	We want to know your rating of the specialist you saw most often in the last 12 months. Using any number from 0 to 10, where 0 is the worst specialist possible and 10 is the best specialist possible, what number would you use to rate the specialist?	0 Worst specialist possible 1 2 3 4 5 6 7 8 9 10 Best specialist possible

Table E.2.2 lists the questions and response choices for the CAHPS 3.0 composites used for re-calculating scores from previous quarters for comparative purposes in the beneficiary reports. Question numbers refer to the CAHPS 3.0 Adult Questionnaire (Commercial). The ratings questions are not listed here, as they were identical in both versions.

TABLE E.2.2

CAHPS 3.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT QUESTIONNAIRE CAHPS 3.0	GETTING NEEDED CARE	RESPONSE CHOICE
Q9	In the last 12 months, how much of a problem, if any, was it to see a specialist that you needed to see?	A big problem A small problem Not a problem
Q22	In the last 12 months, how much of a problem, if any, was it to get the care, tests, or treatment you or your doctor believed necessary?	A big problem A small problem Not a problem
	GETTING CARE QUICKLY	
Q18	In the last 12 months, not counting the times you needed health care right away, how often did you get an appointment for healthcare as soon as you wanted?	Never Sometimes Usually Always
Q16	In the last 12 months, when you needed care right away for an illness, injury, or condition, how often did you get care as soon as you wanted?	Never Sometimes Usually Always
	HOW WELL DOCTORS COMMUNICATE	
Q28	In the last 12 months, how often did doctors or other health providers listen carefully to you?	Never Sometimes Usually Always
Q29	In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?	Never Sometimes Usually Always
Q30	In the last 12 months, how often did doctors or other health providers show respect for what you had to say?	Never Sometimes Usually Always
Q31	In the last 12 months, how often did doctors or other health providers spend enough time with you?	Never Sometimes Usually Always

ADULT QUESTIONNAIRE CAHPS 3.0	CUSTOMER SERVICE	RESPONSE CHOICE
Q36	In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service?	A big problem A small problem Not a problem

ADULT SUPPLEMENTAL QUESTIONNAIRE CAHPS 3.0	CLAIMS PROCESSING	
CP2	In the last 12 months, how often did your health plan handle your claims in a reasonable time?	Never Sometimes Usually Always Don't Know
CP3	In the last 12 months, how often did your health plan handle your claims correctly?	Never Sometimes Usually Always Don't Know

The preventive care composite in the beneficiary reports measures MHS performance in terms of meeting TMA's goals for the provision of preventive services. The composite is calculated by combining the responses to individual questions pertaining to these goals. Questions and responses from the present version of the 2009 HCSDB that are incorporated into the preventive care composite are presented in Table E.3. When individual scores in the preventive care composite are combined, the resulting composite is weighted by the number of questions to which a normal population has responded. Therefore, the weight a particular question receives in the composite score is based on the number of responses it "receives". The resulting proportion is presented as a percentage.

TABLE E.3

QUESTIONS AND RESPONSE CHOICES ON PREVENTIVE CARE
EXPRESSED AS A STANDARD TMA COMPOSITE

2009 ADULT HCSDB	COMPOSITE PREVENTIVE CARE	RESPONSE CHOICES
H09048	When did you last have a blood pressure reading?	Less than 12 months ago 1 to 2 years ago More than 2 years ago
H09049	Do you know if your blood pressure is too high?	Yes, it is too high No, it is not too high Don't know
H09057	When did you last have a Pap smear test?	Within the last 12 months 1 to 3 years ago More than 3 but less than 5 years ago 5 or more years ago Never had a Pap smear
H09059	When was the last time your breasts were checked by mammography?	Within the last 12 months 1 to 2 years ago More than 2 but less than 5 years ago 5 or more years ago Never had a mammogram
H09062	In which trimester did you first receive prenatal care?	First trimester Second trimester Third trimester Did not receive prenatal care
H09069F, H09069I	How tall are you without your shoes on? Please give your answer in feet and inches.	_____ feet _____ inches
H09070	How much do your weigh without your shoes on? Please give your answer in pounds.	_____ pounds

The healthy behavior composite measures the success of TMA's efforts to reduce smoking and obesity rates. The composite consists of a non-smoking rate, which is the proportion of adults not smoking or who quit more than a year ago, the counseled to quit rate, which is the proportion of smokers with office visits who were counseled to quit during at least one visit, and the rate of adults with non-obese BMI ratio. The composite weights these three measures equally.

TABLE E.4.1

CAHPS 4.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT SUPPLEMENTAL QUESTIONNAIRE CAHPS 4.0	SMOKING	RESPONSE CHOICE
H45	Do you now smoke every day, some days or not at all?	Every day
		Some days
		Not at all
		Don't know
H46	In the last 12 months, on how many visits were you <u>advised to quit</u> smoking by a doctor or other health provider in your plan?	None
		1 visit
		2 to 4 visits
		5 to 9 visits
		10 or more visits
		I had no visits in the last 12 months

TABLE E.4.2

CAHPS 3.0 QUESTIONS AND RESPONSE CHOICES
EXPRESSED AS COMPOSITE SCORES AND RATINGS

ADULT SUPPLEMENTAL QUESTIONNAIRE CAHPS 3.0	SMOKING	RESPONSE CHOICE
H12	Have you ever <u>smoked</u> at least 100 cigarettes in your entire life?	Yes
		No
		Don't know

APPENDIX **F**

SAS CODE FOR **F**ILE **D**EVELOPMENT – **Q**UARTERS **I-IV**

F.1 Q4FY2009\PROGRAMS\WEIGHTING\MERGESYN.SAS - COMBINE ITEM RESPONSE DATA FROM SURVEY CONTRACTOR WITH THE MPR SAMPLING AND DEERS VARIABLES.

```
*******************************************************************************
*
* PROGRAM:  Changed from MERGENRC.SAS to MERGESYN.SAS
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6077-300)
* PURPOSE:  COMBINE ITEM RESPONSE DATA FROM SYNOVATE WITH THE MPR SAMPLING AND
*           DEERS VARIABLES.  ALSO, CONSTRUCT XREGION AND CONUS.
* WRITTEN:  01/31/2001 BY KEITH RATHBUN
*
* MODIFIED: 1) 03/13/2002 BY KEITH RATHBUN for 2002 survey: Added MPCSMPL,
*              SERVAREA and DCATCH.  Drop SUBDEMO.
*           2) 03/11/2003 BY KEITH RATHBUN for 2003 survey: Removed the
*              processing involving the FLAG_FIN file.  NRC now sends
*              all records regardless of FLAG_FIN.
*           3) 09/28/2004 BY JACQUELINE AGUFA: Moved the code that contructs
*              XREGION, XTNEXREG and CONUS to CONVARQ.SAS.
*           4) 10/20/2004 BY KEITH RATHBUN: Recode unknown values of
*              MRTLSTAT into one group.
*           5) 06/22/2005 BY JACQUELINE AGUFA: Add ACV to mergenrc.sd2
*
* INPUTS:   1) DODyyQnF.sas7bdat - Quarterly DOD Health Survey Data from Synovate
*              where n = Quarter Number
*                    yy = Survey Administration Year
*           2) BWT.sas7bdat - MPR Sampling and DEERS variables
*           3) SAMPLA02.sas7bdat - DEERS variables
*
* OUTPUTS:  1) MERGESYN.sas7bdat - Quarterly DOD Health Survey Data
*              (Combined SYNOVATE, MPR, and DEERS variables)
*
*******************************************************************************;
LIBNAME  INr       "K:\Q4FY2009"; /*Restricted folder*/
LIBNAME  IN        "..\..\DATA\afinal";
LIBNAME  OUT  v9   "..\..\DATA\afinal";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*******************************************************************************
* Define fielding start date so AGE can be recalculated based on DOB.
* Also assign quarter and number of eligibility periods.
*******************************************************************************;
%LET FIELDATE = 07012009; * mmddyyyy;
%LET FIELDLBL = July 1st 2009;
%LET QUARTER  = Q4FY2009;
%LET NUMPD    = 35; *Add 1 to number of Quarters processed each quarter;

*******************************************************************************
* SORT the Synovate-Provided file and the original sample (BWT).
*******************************************************************************;
PROC SORT DATA=IN.dod09q4f OUT=SYNFILE;
     BY MPRID;
RUN;

DATA SYNFILE;
   LENGTH MPRID $8;
   SET SYNFILE;
*****************************************************************
* JMA 6/16/2009
* Rename H09034A H09034B per Eric
*****************************************************************;


RENAME
H09034A  =H09034B
S09D02B  =S09D02
S09D03B  =S09D03
        ;

RUN;

PROC SORT DATA=IN.BWT OUT=BWT; BY MPRID; RUN;
```

```
*******************************************************************************
* Attach DEERS variables to the combined file that were ommited from the
* BWT file.
*******************************************************************************;
PROC SORT DATA=INr.SAMPLA02 OUT=SAMPLA02
          (KEEP=MPRID DAGEQY DBENCAT DCATCH DMEDELG DSPONSVC /*LEGDDSCD (JMA 09/18/2007)*/
                MBRRELCD
                MEDTYPE MRTLSTAT PATCAT PCM RACEETHN
                PNLCATCD PNBRTHDT PAYPLNCD /*E1-E&NUMPD*/ ACV);
   BY MPRID;

RUN;


*******************************************************************************
* Attach the original sampling variables to the combined file.
*******************************************************************************;
DATA MERGESYN;
   MERGE BWT SYNFILE(in=in2) SAMPLA02(in=in1);
   BY MPRID;
   /*FLAG_FIN = COMPRESS(FLAG_FIN); *Trim off the blanks; Apr 3 2007 */

   *******************************************************************************
   * DROP variables that are not needed.
   *******************************************************************************;
   DROP SVCCD GEOSMPL GEOCELL /*EBG_COM*/ EBSMPL
        D_INSTAL /*GROUP_geosmpl*/ ;


   LABEL  /*CACSMPL  = 'CACSMPL - Catchment Area' */ /*Dec 15, 2006*/
          BWT      = 'BWT - Basic Sampling Weight'
          ENBGSMPL = 'ENBGSMPL - Beneficiary/Enrollment Status'
          NHFF     = 'NHFF - Stratum Sample Size'
          SEXSMPL  = 'SEXSMPL - Sex'
          STRATUM  = 'Stratum'
          SVCSMPL  = 'SVCSMPL - Branch of Service'
          FLAG_FIN = 'Final Disposition'
        ;
   IF IN2 AND NOT IN1 THEN
      PUT "ERROR: MPRID Not Found in both the SYNOVATE and MPR files, MPRID = " MPRID;

   IF IN2 AND IN1 THEN OUTPUT MERGESYN;
RUN;


DATA OUT.MERGESYN;
   SET MERGESYN(/*RENAME=(COMMENT_FLAG=CMNTFLAG)*/);
   BY MPRID;
   *******************************************************************************
   * Construct MPCSMPL.
   *******************************************************************************;
   IF PAYPLNCD = 'MO' THEN
      MPCSMPL = 2;
   ELSE IF PAYPLNCD = 'MW' THEN
      MPCSMPL = 3;
   ELSE
      MPCSMPL = 1;
   *******************************************************************************
   * Calculate FIELDAGE based on PNBRTHDT using fielding period
   * starting date.
   *******************************************************************************;
   FIELDATE = INPUT("&FIELDATE",mmddyy8.);
   DOB = SUBSTR(PNBRTHDT,5,2) || SUBSTR(PNBRTHDT,7,2) || SUBSTR(PNBRTHDT,1,4);
   BRTHDATE = INPUT(DOB,mmddyy8.);

   FIELDAGE = PUT(INT((FIELDATE - BRTHDATE)/365.25),Z3.);
   LABEL MPCSMPL  = "MPCSMPL - Military Personnel Category";
   LABEL FIELDAGE = "Age as of &FIELDLBL";
   LABEL DCATCH   = "Catchment Area";

   LENGTH QUARTER $8;
   QUARTER = "&QUARTER";
   LABEL  QUARTER  = 'Survey Quarter';

   LENGTH ONTIME $3;
   ONTIME = "YES";
```

```
      LABEL ONTIME = "Responded Within 8 weeks of Mail-Out";

      ***************************************************************************
      * Recode unknown values of MRTLSTAT into one 'Unknown' group (Z).
      ***************************************************************************;
      IF MRTLSTAT NOT IN ("A","D","I","L","M","N","S","W","Z"," ") THEN MRTLSTAT = "Z";

      DROP FIELDATE DOB BRTHDATE PNBRTHDT PAYPLNCD;

RUN;

TITLE1 "Quarterly DOD Health Survey - Combine SYNOVATE, MPR and DEERS variables (6244-300)";
TITLE2 "Program Name: MERGESYN.SAS By Jacqueline Agufa";
TITLE3 "Program Inputs: DODyyQnF.sas7bdat, BWT.sas7bdat, SAMPLA02.sas7bdat -- Program Output:
MERGESYN.sas7bdat";

PROC CONTENTS; RUN;

PROC FORMAT;
   Value $ACV
      'A'='Active Duty Prime'
      'B'='TRICARE Global Remote Overseas Prime Active Duty'
      'D'='TRICARE Senior Prime enrollee'
      'E'='Non-Active Duty Prime'
      'F'='TRICARE Global Remote Overseas Prime ADFM'
      'G'='TRICARE Plus (CHAMPUS/TFL Eligible)'
      'H'='TRICARE Overseas Prime AD'
      'J'='TRICARE Overseas Prime ADFM'
      'L'='TRICARE Plus (w/o civilian healthcare)'
      'M'='AD not reported as enrolled'
      'R'='TRICARE Reserve Select'
      'Q'='Active Duty enrolled to Op Forces'
      'U'='USFHP/USTF'
 ' ','Z'='Not enrolled in TRICARE Prime or USFHP'
          ;

   VALUE $ENBGS
            '01' = "Active duty"
            '02' = "Active duty fam,Prime,civ PCM"
            '03' = "Active duty fam,Prime,mil PCM"
            '04' = "Active duty fam,non-enrollee"
            '05' = "Retired,<65,civ PCM"
            '06' = "Retired,<65,mil PCM"
            '07' = "Retired,<65,non-enrollee"
            '08' = "Retired,65+,civ PCM"
            '09' = "Retired,65+,mil PCM"
            '10' = "Retired,65+,non-enrollee"
            '11' = "TRICARE Reserve Select"
      ;

RUN;

PROC FREQ DATA=OUT.MERGESYN(DROP=MPRID PRN MIQCNTL);
  TABLES WEB FLAG_FIN DAGEQY*FIELDAGE ACV PCM ENBGSMPL
         ACV*PCM ACV*ENBGSMPL
         _ALL_ /MISSING LIST;
  FORMAT ACV $ACV. ENBGSMPL $ENBGS.;
RUN;
```

F-5

F.2.A   Q1FY2009\PROGRAMS\CODINGSCHEME\CSCHM09Q.SAS - IMPLEMENT CODING SCHEME AND CODING TABLES FOR QUARTER 1 FY2009.

```
*****************************************************************************;
*   Program:  Cschm09q.sas
*   Written:  06/04/2001
*    Author:  C. Rankin
*
*     Input:  MERGESYN.SD2 - Merged MPR Sampling, DEERS, and Synovate Response Data
*    Output:  CSCHM09Q.SD2 - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*            10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*             3/22/2002 - Updated Variable names for Q1 2002 and added
*                         Include file RENAME.SAS to change the variable
*                         names from 01 to 02. Skipping 01 designation to make
*                         survey reflect year of fielding
*             5/09/2002 - Change to logic in TFL supplement
*             3/17/2003 - Updated Variables names for Q1 2003
*             4/11/2003 - Added note 19a to accomodate Q1 2003 error where
*                         an option on most of the questionnaires was omitted for
*                         H03062
*             3/28/2008 - Updated Variable names for Q2 FY 2008
*   Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*             Response Data, check for consistency in responses and skip
*             patterns
*   Include
*     files:  Cschm09q.fmt
*
*****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY     "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN      v9 "..\..\DATA\AFINAL";
LIBNAME OUT     v9 "..\..\DATA\AFINAL";

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM09qV4;
%LET PERIOD=October 2007 to September, 2008;

/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H09001  H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
 H09002I H09002J H09002K H09002M H09002R H09002L H09003  H09004  H09005  H09006
 H09007  H09008  H09009  H09010  H09011  H09012  H09013  H09014  H09015  H09016
 H09017  H09018  H09019  H09020  H09021  H09022  H09023  H09024  H09025  H09026
 H09027  H09028  H09029  H09030  H09031
 S09B01  S09B02  S09B03  S09B04  H09032  H09033  H09034  H09035  H09036  H09037
 H09038  H09039  H09040  H09041  H09042  H09043  H09044  H09045  H09046  H09047
 H09048  H09049  H09050  H09051  H09052  H09053  H09054  H09055
 S09D01  S09D02  S09D03  S09D04
 H09056  H09057  H09058  H09059  H09060  H09061  H09062  H09063  H09064  H09065
 H09066  H09067  H09068
 H09069F H09069I H09070
 SREDA   H09071A H09071B H09071C H09071D H09071E
 SRRACEA SRRACEB SRRACEC SRRACED SRRACEE SRAGE
 H09072  H09073  H09074  S09N11
 ;

/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H09001_O H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
 H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO H09003_O H09004_O H09005_O H09006_O
 H09007_O H09008_O H09009_O H09010_O H09011_O H09012_O H09013_O H09014_O H09015_O H09016_O
 H09017_O H09018_O H09019_O H09020_O H09021_O H09022_O H09023_O H09024_O H09025_O H09026_O
 H09027_O H09028_O H09029_O H09030_O H09031_O
 S09B01_O S09B02_O S09B03_O S09B04_O H09032_O H09033_O H09034_O H09035_O H09036_O H09037_O
 H09038_O H09039_O H09040_O H09041_O H09042_O H09043_O H09044_O H09045_O H09046_O H09047_O
```

```
  H09048_O H09049_O H09050_O H09051_O H09052_O H09053_O H09054_O H09055_O
  S09D01_O S09D02_O S09D03_O S09D04_O
  H09056_O H09057_O H09058_O H09059_O H09060_O H09061_O H09062_O H09063_O H09064_O H09065_O
  H09066_O H09067_O H09068_O
  H09069FO H09069IO H09070_O
  SREDA_O  H09071AO H09071BO H09071CO H09071DO H09071EO
  SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO SRAGE_O
  H09072_O H09073_O H09074_O S09N11_O
  ;

TITLE  "DoD 2009 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";



DATA MERGESYN;

   SET IN.MERGESYN(RENAME=(H09070  = H09070CH
                        )
                 DROP=  H09001A  H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA
                        H09002KA H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

                        H09003A H09004A H09005A H09006A H09007A H09008A H09009A H09010A H09011A
                        H09012A H09013A H09014A H09015A H09016A H09017A H09018A H09019A H09020A
                        H09021A H09022A H09023A H09024A H09025A H09026A H09027A H09028A H09029A
                        H09030A H09031A H09032A H09033A H09034A H09035A H09036A H09037A H09038A

                        S09B01A  S09B02A  S09B03A  S09B04A

                        S09D01A  S09D02A  S09D03A  S09D04A

                        S09N11A

                        H09039A H09040A H09041A H09042A H09043A H09044A H09045A H09046A H09047A
H09048A

                        H09049A H09050A H09051A H09052A H09053A H09054A H09055A H09056A H09057A
H09058A

                        H09059A H09060A H09061A H09063A H09064A H09065A H09066A H09067A

                        H09068FA H09068IA H09069A H09070AA H09070BA H09070CA H09070DA H09070EA
                        SRACEAA  SRACEBA SRACECA SRACEDA SRACEEA SRAGEA SREDAA
                        H09068FNA H09068INA H09069NA
                 );

*******************************************************************;
* Code added by Jacqueline Agufa 09/15/2004 to fix name of race variable;
*******************************************************************;

   RENAME SRACEA = SRRACEA;
   RENAME SRACEB = SRRACEB;
   RENAME SRACEC = SRRACEC;
   RENAME SRACED = SRRACED;
   RENAME SRACEE = SRRACEE;


   **** update variables with both filled items and check boxes
   **** Per Eric Schone;


   IF H09069F LT 1      THEN H09069F=H09069FN;
   IF H09069I IN (-9,.) THEN H09069I=H09069IN;


   H09070= COMPRESS(H09070CH,' ')*1;

   DROP H09070CH;


   IF H09070=0   AND H09070N=-9    THEN H09070 =H09070N;
   IF H09070<100 AND H09070N NE -9  THEN H09070 =H09070N;
```

```
   *** Correct odd height and weights Per Eric Schone;

   IF H09069F NOT IN (-9,.) THEN DO;
     IF H09069F < 2 OR
        H09069F > 8
     THEN H09069F= -7;
   END;

   IF 0 <= H09070 < 40 OR
      H09070 > 500
   THEN H09070= -7;




   IF VERSION=4 THEN OUTPUT MERGESYN;

RUN;



DATA OUT.CSCHM09qV4;

   LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
   INFORMAT &VARLIST2. 4.;
   %INCLUDE "CSCHM09q.FMT";


/* label and format statements for original variables */


   SET MERGESYN;



   ****************************************************************;
   **** Recodes for invalid responses:***************************;
   ****************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 2009 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

   SEX=PNSEXCD;
   AGE=INPUT(DAGEQY,8.);

   ARRAY RECODE(*) &VARLIST1;
   ARRAY  ORIG(*) &VARLIST2;

   DO I = 1 to DIM(ORIG);
       ORIG(I) = RECODE(I);
       IF ORIG(I) < 0 THEN DO;
               IF ORIG(I)= -9 THEN RECODE(I)=.;
          ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
          ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
          ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
          ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
          ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
          ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
          ELSE RECODE(I)=RECODE(I);
       END;
   END;
   DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

   ARRAY  MARKED(*)
```

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```
              H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
              H09002I H09002J H09002K H09002M H09002R H09002L

              H09071A H09071B H09071C H09071D H09071E
              SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
                    ;


     ARRAY INFORMAT(*)
              H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
              H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO

              H09071AO H09071BO H09071CO H09071DO H09071EO
              SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO

                    ;


     DO J=1 TO DIM(INFORMAT);
        IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
        ELSE MARKED(J)=2;
     END;
     DROP J;

     FORMAT
              H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
              H09002I H09002J H09002K H09002M H09002R H09002L

              H09071A H09071B H09071C H09071D H09071E
              SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
              MARKED.;


***********************************************************************;

/* skip coding scheme for all surveys not returned **/

  IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;

/** Note 1 -- H09003, H09004 health plan usage **/

  IF H09003 > 0 OR H09003 =.D THEN N1=1;
  ELSE IF H09003=.N  THEN DO;
     IF H09004 NOT=. THEN DO;
        N1=2;
        H09004=.C;
     END;
     ELSE DO;
        N1=3;
        H09004=.N;
     END;
  END;
  ELSE IF H09003=.   THEN N1=4;


/** Note 2 -- H09006,H09007,H09008:  illness or injury **/

  ARRAY NOTE2 H09007 H09008;
  N2MARK=0;
  N2NMISS=0;
  N2NN=0;

  DO OVER NOTE2;
     IF NOTE2 NE . THEN N2NMISS+1;
     IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
     IF NOTE2 EQ .N THEN N2NN+1;
  END;


  IF H09006=1 AND N2NMISS=0 THEN DO;
       N2=1;
  END;
  ELSE IF H09006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
     H09006=2;
```

```
          N2=2;
          DO OVER NOTE2;
             IF NOTE2=. THEN NOTE2=.N;
             ELSE NOTE2=.C;
          END;
       END;
       ELSE IF H09006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
          DO OVER NOTE2;
             IF NOTE2=.N THEN NOTE2=.;
          END;
          N2=3;
       END;
       ELSE IF H09006=1 AND N2MARK>0 THEN DO;
          N2=4;
       END;
       ELSE IF H09006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
          H09007=.C;
          H09008=.C;
          N2=5;
       END;
       ELSE IF H09006 IN (2,.) AND N2MARK>0 THEN DO;
          H09006=1;
          N2=6;
          DO OVER NOTE2;
             IF NOTE2=.N THEN NOTE2=.;
          END;
       END;
       ELSE IF H09006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
          N2=7;
          DO OVER NOTE2;
             IF NOTE2=. THEN NOTE2=.N;
             ELSE NOTE2=.C;
          END;
       END;
       ELSE IF H09006=.  AND N2NMISS=0 THEN N2=8;


       DROP N2NMISS N2MARK N2NN;


    /** Note 3 -- H09009,H09010,H09011:  regular or routine healthcare **/

       ARRAY Note3 H09010 H09011;
       N3MARK=0;
       N3NMISS=0;
       N3NN=0;

       DO OVER Note3;
          IF Note3 NE . THEN N3NMISS+1;
          IF Note3 NOT IN (.N,.) THEN N3MARK+1;
          IF Note3 EQ .N THEN N3NN+1;
       END;

       IF H09009=1 AND N3NMISS=0 THEN DO;
            N3=1;
       END;
       ELSE IF H09009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
          H09009=2;
          N3=2;
          DO OVER Note3;
             IF Note3=. THEN Note3=.N;
             ELSE Note3=.C;
          END;
       END;
       ELSE IF H09009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
          DO OVER Note3;
             IF Note3=.N THEN Note3=.;
          END;
          N3=3;
       END;
       ELSE IF H09009=1 AND N3MARK>0 THEN DO;
          N3=4;
       END;
       ELSE IF H09009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
```

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```
        H09010=.C;
        H09011=.C;
        N3=5;
     END;
     ELSE IF H09009 IN (2,.) AND N3MARK>0 THEN DO;
        H09009=1;
        N3=6;
        DO OVER Note3;
           IF Note3=.N THEN Note3=.;
        END;
     END;
     ELSE IF H09009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
        N3=7;
        DO OVER Note3;
           IF Note3=. THEN Note3=.N;
           ELSE Note3=.C;
        END;
     END;
     ELSE IF H09009=.  AND N3NMISS=0 THEN N3=8;


     DROP N3NMISS N3MARK N3NN;


 /** Note 4 -- H09013, H09014-H09018: doctor's office or clinic **/

   ARRAY NOTE4  H09014-H09018;

   N4MARK=0;
   N4NMISS=0;

   DO OVER NOTE4;
      IF NOTE4 NE . THEN N4NMISS+1;
      IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
   END;


   IF H09013=1 THEN DO;
      N4=1;
      DO OVER NOTE4;
         IF NOTE4=. THEN NOTE4=.N;
         ELSE NOTE4=.C;
      END;
   END;
   ELSE IF H09013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
      H09013=1;
      N4=2;
      DO OVER NOTE4;
         IF NOTE4=. THEN NOTE4=.N;
         ELSE NOTE4=.C;
      END;
   END;
   ELSE IF H09013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
      DO OVER NOTE4;
         IF NOTE4=.N THEN NOTE4=.;
      END;
      N4=3;
   END;
   ELSE IF H09013=.  AND N4NMISS=0 THEN N4=4;
   ELSE IF H09013 IN (.) AND N4MARK>0 THEN DO;
      N4=5;
      DO OVER NOTE4;
         IF NOTE4=.N THEN NOTE4=.;
      END;
   END;

   DROP N4NMISS N4MARK;


 /** Note 5 -- H09015, H09016-H09017: doctor's office or clinic- treatment **/

  IF H09015 IN (.N,.C) THEN N5=1;
  ELSE IF H09015= 1  THEN N5=2;
  ELSE IF H09015 IN (2,.) AND H09016 IN (1,2) THEN  DO;
```

```
      N5=3;
      H09015=1;
  END;
  ELSE IF H09015 IN (2,.) AND (H09016 IN (3,4,.) AND H09017 IN (1,2)) THEN  DO;
      N5=4;
      H09015=1;
  END;
  ELSE IF H09015 IN (2) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
      N5=5;
      IF H09016 = . THEN H09016 = .N;
      ELSE H09016 = .C;
      IF H09017 = . THEN H09017 = .N;
      ELSE H09017 = .C;
  END;
  ELSE IF H09015 IN (.) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
      N5=6;
  END;



/** Note 6 -- H09019, H09020-H09027: personal doctor **/

  ARRAY NOTE6  H09020-H09027;

  N6MARK=0;
  N6NMISS=0;

  DO OVER NOTE6;
      IF NOTE6 NE . THEN N6NMISS+1;
      IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
  END;


  IF H09019 IN (1)  THEN DO;
      N6=1;
  END;
  ELSE IF H09019 in (2,.) AND N6MARK>0 THEN DO;
      N6=2;
      H09019=1;
  END;
  ELSE IF H09019 in (2) THEN DO;
      N6=3;
      DO OVER NOTE6;
          IF NOTE6=. THEN NOTE6=.N;
          ELSE NOTE6=.C;
      END;
  END;
  ELSE IF H09019=. THEN N6=4;

  DROP N6NMISS N6MARK;


/** Note 7 -- H09020, H09021-H09026: personal doctor visit **/

  ARRAY NOTE7  H09021-H09026;

  N7MARK=0;
  N7NMISS=0;

  DO OVER NOTE7;
      IF NOTE7 NE . THEN N7NMISS+1;
      IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
  END;


  IF H09020 IN (.N, .C) THEN N7=1;
  ELSE IF H09020=0 THEN DO;
      N7=2;
      DO OVER NOTE7;
          IF NOTE7=. THEN NOTE7=.N;
          ELSE NOTE7=.C;
      END;
  END;
  ELSE IF H09020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
```

```
      H09020=0;
      N7=3;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
      END;
   END;
   ELSE IF H09020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
      DO OVER NOTE7;
         IF NOTE7=.N THEN NOTE7=.;
      END;
      N7=4;
   END;


   DROP N7NMISS N7MARK;




/** Note 8 -- H09025, H09026:  care from another doctor or healthcare provider **/

   IF H09025 IN (.N, .C) THEN N8=1;
   ELSE IF H09025=1 THEN N8=2;
   ELSE IF H09025 IN (2,.) AND H09026 IN (1,2,3,4) THEN DO;
      H09025=1;
      N8=3;
   END;
   ELSE IF H09025=2 AND H09026 IN (.) THEN DO;
      H09026=.N;
      N8=4;
   END;
   ELSE IF H09025=.  AND H09026=.  THEN N8=5;




/** Note 9 -- H09028, H09029-H09031:  needed to see a specialist in last 12 months **/

   ARRAY NOTE9  H09029 H09031;

   N9MARK=0;
   N9NMISS=0;

   DO OVER NOTE9;
      IF NOTE9 NE . THEN N9NMISS+1;
      IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
   END;

   IF H09030 NE . THEN N9NMISS+1;
   IF H09030 NOT IN (.,0) THEN N9MARK+1;


   IF H09028 IN (1)  THEN DO;
      N9=1;
      IF H09029=.N THEN H09029=.;
   END;
   ELSE IF H09028 in (2,.) AND N9MARK>0 THEN DO;
      N9=2;
      H09028=1;
      IF H09029=.N THEN H09029=.;
   END;
   ELSE IF H09028 in (2) THEN DO;
      N9=3;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
      IF H09030=. THEN H09030=.N;
      ELSE H09030=.C;
   END;
   ELSE IF H09028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
      N9=4;
      H09028=2;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
```

```
    END;
    IF H09030=. THEN H09030=.N;
    ELSE H09030=.C;
  END;
  ELSE IF H09028=.  AND N9NMISS=0 THEN N9=5;

  DROP N9NMISS N9MARK;


/** Note 10 -- H09030, H09031: saw a specialist in last 12 months **/

  IF H09030 IN (.N,.C) THEN N10=1;
  ELSE IF H09030 IN (1,2,3,4,5) AND H09031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
  ELSE IF H09030 IN (1,2,3,4,5,.) AND H09031=.N THEN DO;
    H09030=0;
    H09031=.C;
    N10=3;
  END;
  ELSE IF H09030 = 0 THEN DO;
    IF H09031=. THEN H09031=.N;
    ELSE H09031=.C;
    N10=4;
  END;
  ELSE IF H09030=. THEN N10=5;


/** Note 10A1 -- S09B02, S09B03-S09B04: overall mental health **/

  ARRAY NOTE10A1  S09B03-S09B04;

  N10A1MARK=0;
  N10A1NMISS=0;

  DO OVER NOTE10A1;
    IF NOTE10A1 NE . THEN N10A1NMISS+1;
    IF NOTE10A1 NOT IN  (., .N) THEN N10A1MARK+1;
  END;

  IF S09B02 = 1 THEN DO;
    DO OVER NOTE10A1;
      IF NOTE10A1=.N THEN NOTE10A1=.;
    END;
    N10A1=1;
  END;
  ELSE IF S09B02 IN (2,.) AND (N10A1MARK>0) THEN DO;
    N10A1=2;
    S09B02=1;
  END;
  ELSE IF S09B02=2  AND (N10A1NMISS=0 OR (N10A1NMISS > 0 AND N10A1MARK = 0)) THEN DO;
    N10A1=3;
    DO OVER NOTE10A1;
      IF NOTE10A1 = . THEN NOTE10A1=.N;
      ELSE NOTE10A1 = .C;
    END;
  END;
  ELSE IF S09B02 IN (.) AND (N10A1NMISS > 0 AND N10A1MARK = 0) THEN DO;
    N10A1=4;
    S09B02=2;
    DO OVER NOTE10A1;
      IF NOTE10A1 = . THEN NOTE10A1=.N;
      ELSE NOTE10A1 = .C;
    END;
  END;
  ELSE IF S09B02 IN (.) AND N10A1NMISS=0 THEN N10A1=5;

  DROP N10A1NMISS N10A1MARK;


/** Note 11 -- H09032, H09033:  tried to get care, tests, or treatment from health plan**/

  IF H09032=1 AND H09033 IN (1,2,3,4,.) THEN N11=1;
  ELSE IF H09032 IN (1,.) AND H09033=.N THEN DO;
    H09032=2;
    H09033=.C;
```

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```
      N11=2;
   END;
   ELSE IF H09032 IN (2,.) AND H09033 IN (1,2,3,4) THEN DO;
      H09032=1;
      N11=3;
   END;
   ELSE IF H09032=2 AND H09033 IN (.,.N) THEN DO;
      IF H09033=. THEN H09033=.N;
      ELSE H09033=.C;
      N11=4;
   END;
   ELSE IF H09032=.  AND H09033=.  THEN N11=5;


/** Note 12 -- H09035, H09036:  tried to get cost of service/equipment from health plan**/

   IF H09035=1 AND H09036 IN (1,2,3,4,.) THEN N12=1;
   ELSE IF H09035 IN (1,.) AND H09036=.N THEN DO;
      H09035=2;
      H09036=.C;
      N12=2;
   END;
   ELSE IF H09035 IN (2,.) AND H09036 IN (1,2,3,4) THEN DO;
      H09035=1;
      N12=3;
   END;
   ELSE IF H09035=2 AND H09036 IN (.,.N) THEN DO;
      IF H09036=. THEN H09036=.N;
      ELSE H09036=.C;
      N12=4;
   END;
   ELSE IF H09035=.  AND H09036=.  THEN N12=5;


/** Note 13 -- H09037, H09038:  tried to get cost of prescription meds from health plan**/

   IF H09037=1 AND H09038 IN (1,2,3,4,.) THEN N13=1;
   ELSE IF H09037 IN (1,.) AND H09038=.N THEN DO;
      H09037=2;
      H09038=.C;
      N13=2;
   END;
   ELSE IF H09037 IN (2,.) AND H09038 IN (1,2,3,4) THEN DO;
      H09037=1;
      N13=3;
   END;
   ELSE IF H09037=2 AND H09038 IN (.,.N) THEN DO;
      IF H09038=. THEN H09038=.N;
      ELSE H09038=.C;
      N13=4;
   END;
   ELSE IF H09037=.  AND H09038=.  THEN N13=5;


/** Note 14 -- H09039, H09040-H09041: tried to use health plan's customer service  **/

   ARRAY NOTE14  H09040-H09041;

   N14MARK=0;
   N14NMISS=0;

   DO OVER NOTE14;
      IF NOTE14 NE . THEN N14NMISS+1;
      IF NOTE14 NOT IN  (., .N) THEN N14MARK+1;
   END;

   IF H09039 = 1 AND (N14MARK>0 OR N14NMISS=0) THEN DO;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
      N14=1;
   END;
   ELSE IF H09039 IN (1,.) AND (N14NMISS > 0 AND N14MARK = 0) THEN DO;
      N14=2;
```

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```
       H09039=2;
       DO OVER NOTE14;
          IF NOTE14 = . THEN NOTE14=.N;
          ELSE NOTE14 = .C;
       END;
    END;
    ELSE IF H09039 IN (2,.) AND (N14MARK>0) THEN DO;
       N14=3;
       H09039=1;
       DO OVER NOTE14;
          IF NOTE14=.N THEN NOTE14=.;
       END;
    END;
    ELSE IF H09039=2  AND (N14NMISS=0 OR (N14NMISS > 0 AND N14MARK = 0)) THEN DO;
       N14=4;
       DO OVER NOTE14;
          IF NOTE14 = . THEN NOTE14=.N;
          ELSE NOTE14 = .C;
       END;
    END;
    ELSE IF H09039 IN (.) AND N14NMISS=0 THEN N14=5;

    DROP N14NMISS N14MARK;


/** Note 15 -- H09042, H09043:  received forms to fill out from health plan **/

    IF H09042=1 AND H09043 IN (1,2,3,4,.) THEN N15=1;
    ELSE IF H09042 IN (1,.) AND H09043=.N THEN DO;
       H09042=2;
       H09043=.C;
       N15=2;
    END;
    ELSE IF H09042 IN (2,.) AND H09043 IN (1,2,3,4) THEN DO;
       H09042=1;
       N15=3;
    END;
    ELSE IF H09042=2 AND H09043 IN (.,.N) THEN DO;
       IF H09043=. THEN H09043=.N;
       ELSE H09043=.C;
       N15=4;
    END;
    ELSE IF H09042=.  AND H09043=.  THEN N15=5;


/** Note 16 -- H09044, H09045-H09046: claims to health plan **/

    ARRAY NOTE16 H09045-H09046;
    N16MARK=0;
    N16NMISS=0;
    N16NDK=0;

    DO OVER NOTE16;
       IF NOTE16 NE . THEN N16NMISS+1;
       IF NOTE16 NOT IN (.N,.D,.) THEN N16MARK+1;
       IF NOTE16 NOT IN (.,.D) THEN N16NDK+1;
    END;

    IF H09044=1 AND
       (N16NMISS=0 OR N16MARK>0 OR N16NDK=0)
    THEN DO;
       N16=1;
       DO OVER NOTE16;
          IF NOTE16=.N THEN NOTE16=.;
       END;
    END;
    ELSE IF H09044 IN (1,.,.D) AND N16NMISS>0 AND N16MARK=0 AND N16NDK>0 THEN DO;
       N16=2;
       H09044=2;
       DO OVER NOTE16;
          IF NOTE16=. THEN NOTE16=.N;
          ELSE NOTE16=.C;
       END;
    END;
```

```
   ELSE IF H09044 IN (2,.,.D) AND N16MARK>0
        THEN DO;
     H09044=1;
     N16=3;
     DO OVER NOTE16;
        IF NOTE16=.N THEN NOTE16=.;
     END;
   END;
   ELSE IF H09044 IN (2) AND (N16NMISS=0 OR N16MARK=0) THEN DO;
     N16=4;
     DO OVER NOTE16;
        IF NOTE16=. THEN NOTE16=.N;
        ELSE NOTE16=.C;
     END;
   END;
   ELSE IF H09044 IN (.D) AND (N16NMISS=0 OR N16NDK=0) THEN DO;
     N16=5;
     DO OVER NOTE16;
        IF NOTE16=. THEN NOTE16=.N;
        ELSE NOTE16=.C;
     END;
   END;
   ELSE IF H09044 IN (.) AND (N16NMISS=0 OR N16NDK=0) THEN N16=6;

   DROP N16NMISS N16MARK N16NDK;


/** Note 17 -- smoking:  H09051, H09052-H09055  **/

   ARRAY NOTE17 H09053 H09054 H09055;

   IF H09051=1 and H09052 IN (3,4) THEN DO;  /* still smoke */
     N17=1;
   END;
   ELSE IF H09051=1 AND H09052 IN (2,.D) THEN DO;  /* quit */
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
     N17=2;
   END;
   ELSE IF H09051=1 AND H09052 = . THEN DO;  /* don't know */
     N17=3;
   END;
   ELSE IF H09051 IN (2,.D,.) AND H09052 IN (3,4) THEN DO;
     H09051=1;

     N17=4;
   END;
   ELSE IF H09051 IN (2,.D) AND H09052 IN (2,.D, .) THEN DO; /*never smoke*/
     /* JMA March 25 2004,
        Updated because H09054 and H09055 have been added to the
        skip pattern */

     IF H09052 NE . THEN H09052 =.C;
     ELSE H09052=.N;

     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;

     N17=5;
   END;
   ELSE IF H09051 IN ( .) THEN DO;
     IF (H09052 IN (2,.) AND
        (H09053 IN (2,3,4,5) OR H09054 IN (2,3,4,5) OR H09055 IN (2,3,4,5)))
     THEN DO;
        /* JMA March 25 2004,
           Updated because H09054 and H09055 have been added to the
           skip pattern */

        H09051=1;
        N17=6;
```

F-17

```
         END;
      ELSE IF H09052 IN (2,.) THEN DO; /*MRE/blank*/
            N17=7;

      END;
      ELSE IF H09052=.D THEN DO; /*MRE/blank*/
         /* JMA March 25 2004,
            Updated because H09054 and H09055 have been added to the
            skip pattern */

          DO OVER NOTE17;
            IF NOTE17=. THEN NOTE17=.N;
            ELSE NOTE17=.C;
         END;

         N17=8;
      END;
   END;


/** Note 18 -- advice from doctor on smoking:  H09053-H09055  **/

   IF H09053 EQ .N THEN DO;                /* jma Sep 19 2006 */
      IF H09054 IN (.,.N) THEN H09054 = .N;
      ELSE H09054=.C;
      IF H09055 IN (.,.N) THEN H09055 = .N;
      ELSE H09055=.C;
      N18=1;
   END;
   ELSE IF H09053 EQ .C THEN DO;           /* jma fEB 19 2008 */
      N18=2;
   END;
   ELSE IF H09053 EQ 1 AND (H09054 =.N AND H09055=.N) THEN DO; /* jma May 10 2007 */
       H09054 = 1;
       H09055 = 1;
       N18=3;
   END;
   ELSE IF H09053 EQ 1 AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
       H09054 = 1;
       N18=4;
   END;
   ELSE IF H09053 EQ 1 AND (H09055=.N) THEN DO; /* jma May 10 2007 */
       H09055 = 1;
       N18=5;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N AND H09055= .N) THEN DO; /* jma May 10 2007 */
       H09054 = .;
       H09055 = .;
       N18=6;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
       H09054 = .;
       N18=7;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09055= .N) THEN DO; /* jma May 10 2007 */
       H09055 = .;
       N18=8;
   END;
   ELSE IF H09053 GE 1 AND (H09054 > H09053 AND H09055 > H09053) THEN DO; /* jma May 10 2007 */
       H09054 = H09053;
       H09055 = H09053;
       N18=9;
   END;
   ELSE IF H09053 GE 1 AND (H09054 > H09053) THEN DO; /* jma May 10 2007 */
       H09054 = H09053;
       N18=10;
   END;
   ELSE IF H09053 GE 1 AND (H09055 > H09053) THEN DO; /* jma May 10 2007 */
       H09055 = H09053;
       N18=11;
   END;
   ELSE  IF  H09053  GE 1 AND ((H09054 <= H09053 or H09054 = . ) AND (H09055 <= H09053 or
H09055=.))
   THEN DO; /* jma Feb 19 2007 */
```

```
        N18=12;
    END;
    ELSE IF (H09053=. AND H09054 IN (1,2,3,4,5,.) AND H09055 IN (1,2,3,4,5,.))
    THEN DO; /* jma Feb 19 2007 */
        N18=13;
    END;


/** Note 18A1 -- S09D01, S09D02: chewing tobacco **/


  IF S09D01=1 AND S09D02 IN (1,2,3,.D)
  THEN DO;
     N18A1=1;
  END;
  ELSE IF S09D01 IN (1) AND S09D02 IN (.) THEN DO;
     N18A1=2;
  END;
  ELSE IF S09D01 IN (2,.,.D) AND S09D02 IN (1,2) THEN DO;
     N18A1=3;
     S09D01=1;
  END;
  ELSE IF S09D01 IN (2,.D) AND S09D02 IN (3,.,.D) THEN DO;
     N18A1=4;
     IF S09D02 IN (3,.D) THEN S09D02 = .C;
     ELSE IF S09D02 = . THEN S09D02 = .N;
  END;
  ELSE IF S09D01 IN (.) AND S09D02 IN (3,.,.D) THEN DO;
     N18A1=5;
  END;


/** Note 19 - gender H09056, SEX, H09057--H09062,
              XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


  ARRAY fmaleval H09057 H09058 H09059 H09060 H09061 H09062
                 ;

  cntfmale=0;
  DO OVER fmaleval;              /* mammogram/pap smear/PREGNANT*/
     IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;

  IF cntfmale>0 THEN FMALE=1;
  ELSE FMALE = 0;


  IF H09056=. THEN DO;
     IF (SEX='F' AND FMALE) THEN DO;
        N19a=1;
        XSEXA=2;
     END;
     ELSE IF (SEX='F' AND FMALE=0) THEN DO;
        N19a=2;
        XSEXA=2;
     END;
     ELSE IF (SEX='M' AND FMALE) THEN DO;
        N19a=3;
        XSEXA=1;
     END;
     ELSE IF (SEX='M' AND FMALE=0) THEN DO;
        N19a=4;
        XSEXA=1;
     END;
     ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
        N19a=5;
        XSEXA=2;
     END;
     ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
```

```
            N19a=6;
            XSEXA=.;
        END;
        ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
            N19a=7;
            XSEXA=.;
        END;
    END;
    ELSE IF (H09056=1) THEN DO;
        IF FMALE=0 THEN DO;
            N19a=8;
            XSEXA=1;
        END;
        ELSE IF FMALE THEN DO;
            IF SEX='F' THEN DO;
                N19a=9;
                XSEXA=2;
            END;
            ELSE DO;
                N19a=10;
                XSEXA=1;
            END;
        END;
    END;
    ELSE IF (H09056=2) THEN DO;
        IF FMALE THEN DO;
          N19a=11;
           XSEXA=2;
        END;
        ELSE IF FMALE=0 THEN DO;
            IF SEX='M' THEN DO;
              N19a=12;
               XSEXA=1;
            END;
            ELSE DO;
                N19a=13;
                XSEXA=2;
            END;
        END;
    END;
  END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

   ARRAY NOTE19b H09057 H09058 H09059 H09060 H09061 H09062
                ;
  IF XSEXA=1 THEN DO;   /* male */
    IF FMALE=0 THEN DO;
        N19b=1;
        DO OVER NOTE19b;
           NOTE19b=.N;
        END;
    END;   /* valid skip */
    ELSE IF FMALE=1 THEN DO;
        N19b=2;
        DO OVER NOTE19b;
           IF NOTE19b=. THEN NOTE19b = .N;
           ELSE NOTE19b=.C;
        END;
    END;   /* inconsistent response */
  END;
  ELSE IF XSEXA=2 THEN  N19b=3; /* female */
  ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
    N19b=4;
    DO OVER NOTE19b;
       NOTE19b=.;
    END;
  END;


  DROP FMALE CNTFMALE;


/* Note 20- breast exam for female 40 or over  */
```

```
   IF XSEXA=1 THEN DO;  /* male */
      IF (H09058=.C OR H09058=.N) AND (H09059=.C OR H09059=.N)
      THEN N20 = 1;
   END;
   ELSE IF XSEXA=2 THEN DO;
      IF H09058=2 THEN N20=2;          /* female 40 or over */
      ELSE IF H09058=1 THEN DO;   /* female < 40 */
         IF H09059 NE . THEN H09059=.C;
         ELSE H09059=.N;
         N20=3;
      END;
      ELSE IF H09058=. THEN DO;
         IF H09059 NE . THEN DO;
            H09058=2;
            N20=4;
         END;
         ELSE IF H09059=.  THEN DO;
            IF AGE<40 THEN DO;
               H09058 = 1;
               H09059=.N;
               N20=5;
            END;
            ELSE IF AGE >= 40 THEN DO;
               H09058=2;
               N20=6;
            END;
            ELSE IF AGE=. THEN N20=7;
         END;
      END;
   END;
   ELSE IF XSEXA=. THEN N20=8;



/* Note 21 - gender vs Pregnancy */


  IF XSEXA=1 THEN N21=1;           /* male    */
  ELSE IF XSEXA=2 THEN DO;         /* female   */
     IF H09060=1 THEN DO;          /* pregnant */
        IF H09061=1 THEN DO;
           N21=2;
           IF H09062=. THEN H09062 = .N;
           ELSE H09062=.C;
        END;
        ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
           N21=3;
           H09062=.;
        END;
        ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
           N21=4;
        END;
        ELSE IF H09061 IN (3,.) THEN N21=5;
     END;
     ELSE IF H09060=2 THEN DO;
        IF H09061=. THEN H09061 = .N;
        ELSE H09061=.C;
        N21=6;
     END;
     ELSE IF H09060=3 THEN DO;
        N21=7;
        IF H09061=. THEN H09061 = .N;
        ELSE H09061=.C;
        IF H09062=. THEN H09062=.N;
        ELSE H09062=.C;
     END;
     ELSE IF H09060 IN (.) THEN DO;
        IF H09061=1 THEN DO;
           N21=8;
           H09060=1;
           IF H09062=. THEN H09062 = .N;
           ELSE H09062=.C;
        END;
```

```
       ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
          N21=9;
          H09060=1;
          H09062=.;
       END;
       ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
          H09060=1;
          N21=10;
       END;
       ELSE IF H09061=3 THEN DO;
          H09060=1;
          N21=11;
       END;
       ELSE IF H09061=. THEN DO;
          N21=12;
       END;
     END;
   END;
   ELSE IF XSEXA=. AND H09060 IN (.) THEN N21=13;



   DROP AGE SEX;


/** Note 22 -- H09065, H09066:  seen doctor 3 or more times for same condition **/

   IF H09065=1 THEN N22=1;
   ELSE IF H09065 IN (2,.) AND H09066 IN (1,2) THEN DO;
      H09065=1;
      N22=2;
   END;
   ELSE IF H09065=2 AND H09066 IN (.) THEN DO;
      H09066=.N;
      N22=3;
   END;
   ELSE IF H09065=.  AND H09066=.  THEN N22=4;


/** Note 23 -- H09067, H09068:  need or take medicine prescribed by a doctor **/

   IF H09067=1 THEN N23=1;
   ELSE IF H09067 IN (2,.) AND H09068 IN (1,2) THEN DO;
      H09067=1;
      N23=2;
   END;
   ELSE IF H09067=2 AND H09068 IN (.) THEN DO;
      H09068=.N;
      N23=3;
   END;
   ELSE IF H09067=.  AND H09068=.  THEN N23=4;


/** Note 24 -- H09071, H09071A-H09071E: Hispanic or Latino origin or descent **/

   /* JMA
   ****Multiple responses were given to this question so H09071 is being created
   ****from the multiple responses.;
   */


   IF H09071B=1 THEN DO;
      N24=1;
      H09071=2;
   END;
   ELSE IF H09071E=1 THEN DO;
      N24=2;
      H09071=5;
   END;
   ELSE IF H09071C=1 THEN DO;
      N24=3;
      H09071=3;
   END;
   ELSE IF H09071D=1 THEN DO;
```

```
      N24=4;
      H09071=4;
   END;
   ELSE IF H09071A=1 THEN DO;
      N24=5;
      H09071=1;
   END;
   ELSE IF H09071A IN (2,.) AND H09071B IN (2,.) AND H09071C IN (2,.) AND
          H09071D IN (2,.) AND H09071E IN (2,.) THEN DO;
      N24=6;
      H09071=.;

   END;



NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

*******************************************;

 OUTPUT;

RUN;


proc contents data=out.cschm09qV4;
run;
```

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

      FORMAT H09001    H09001_O YN.

             H09003    H09003_O HPLAN1_.
             H09004    H09004_O HPTIME.
             H09005    H09005_O PLACE.

             H09006 H09006_O   H09009 H09009_O   H09019 H09019_O
               YN.

             H09007    H09007_O OFTEN2_.
             H09008    H09008_O TIME1_.

             H09010    H09010_O OFTEN3_.
             H09011    H09011_O TIME2_.
             H09012    H09012_O OFTEN4_.
             H09013    H09013_O OFTEN4_.
             H09014    H09014_O OFTEN8_.
             H09015    H09015_O YN.
             H09016    H09016_O YNDEF.
             H09017    H09017_O YNDEF.
             H09018    H09018_O RATE3_.

             H09020    H09020_O OFTEN10_.

             H09021-H09024   H09021_O--H09024_O OFTEN5_.

             H09025    H09025_O YN.
             H09026    H09026_O OFTEN8_.
             H09027    H09027_O RATE6_.
             H09028    H09028_O YN.
             H09029    H09029_O OFTEN9_.
             H09030    H09030_O SPCLST.
             H09031    H09031_O RATE2_.

             S09B01 S09B01_O MNTLHLTH.
             S09B02 S09B02_O YN.
             S09B03 S09B03_O PROB1_.
             S09B04 S09B04_O RATE5_.

             H09032    H09032_O YN.
             H09033    H09033_O OFTEN11_.
             H09034    H09034_O OFTEN12_.
             H09035    H09035_O YN.
             H09036    H09036_O OFTEN13_.
             H09037    H09037_O YN.
             H09038    H09038_O OFTEN14_.
             H09039    H09039_O YN.
             H09040    H09040_O OFTEN15_.
             H09041    H09041_O OFTEN15_.
             H09042    H09042_O YN.
             H09043    H09043_O OFTEN16_.
             H09044    H09044_O YNDNK.
             H09045    H09045_O OFTEN6_.
             H09046    H09046_O OFTEN6_.
             H09047    H09047_O RATE4_.
             H09048    H09048_O TIME5_.
             H09049    H09049_O YNBP_.
             H09050    H09050_O TIME7_.
             H09051    H09051_O YNDNK.
             H09052    H09052_O TIME8_.
             H09053    H09053_O OFTEN7_.
             H09054    H09054_O OFTEN7_.
             H09055    H09055_O OFTEN7_.

             S09D01 S09D01_O YNDNK.
             S09D02 S09D02_O TIME15_.
             S09D03 S09D03_O YNDNK.
```

```
        S09D04 S09D04_O VISIT.

        H09056   H09056_O SEX.
        H09057   H09057_O TIME11_.

        H09058 H09058_O   H09064 H09064_O
          YN.

        H09059   H09059_O TIME12_.
        H09060   H09060_O YNPREG.
        H09061   H09061_O PREG1_.
        H09062   H09062_O PREG2_.
        H09063   H09063_O HEALTH.

        H09065   H09065_O YN.
        H09066   H09066_O YN.
        H09067   H09067_O YN.
        H09068   H09068_O YN.

        H09069F H09069FO
        H09069I H09069IO
        H09070  H09070_O
          TIME14_.

        SREDA    SREDA_O  EDUC.

        H09071            HISP.

        SRAGE    SRAGE_O  AGEGRP.

        H09072   H09072_O MEDA.
        H09073   H09073_O MEDB.
        H09074   H09074_O MEDSUPP.

        S09N11 S09N11_O S09N11_.

        MISS_1   MISS_4-MISS_9 MISS_TOT 4.
      ;


  LABEL H09001_O='Are you the person listed on envelope'
        H09001  ='Are you the person listed on envelope'
        H09002AO='Health plan(s) covered: TRICARE Prime'
        H09002A ='Health plan(s) covered: TRICARE Prime'
        H09002CO='Health plan(s) covered: TRICARE Ext/Stnd'
        H09002C ='Health plan(s) covered: TRICARE Ext/Stnd'
        H09002NO='Health plan(s) covered: TRICARE Plus'
        H09002N ='Health plan(s) covered: TRICARE Plus'
        H09002OO='Health plan(s) covered: TRICARE For Life'
        H09002O ='Health plan(s) covered: TRICARE For Life'
        H09002PO='Health plan(s) covered: TRICARE Supplmntl Ins'
        H09002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
        H09002QO='Health plan(s) covered: TRICARE Reserve Select'
        H09002Q ='Health plan(s) covered: TRICARE Reserve Select'
        H09002FO='Health plan(s) covered: Medicare'
        H09002F ='Health plan(s) covered: Medicare'
        H09002GO='Health plan(s) covered: FEHBP'
        H09002G ='Health plan(s) covered: FEHBP'
        H09002HO='Health plan(s) covered: Medicaid'
        H09002H ='Health plan(s) covered: Medicaid'
        H09002IO='Health plan(s) covered: Civilian HMO'
        H09002I ='Health plan(s) covered: Civilian HMO'
        H09002JO='Health plan(s) covered: Other civilian'
        H09002J ='Health plan(s) covered: Other civilian'
        H09002KO='Health plan(s) covered: USFHP'
        H09002K ='Health plan(s) covered: USFHP'
        H09002MO='Health plan(s) covered: Veterans'
        H09002M ='Health plan(s) covered: Veterans'
        H09002RO='Health plan(s) covered: Gov Hlth ins-other cntry'
        H09002R ='Health plan(s) covered: Gov Hlth ins-other cntry'
        H09002LO='Health plan(s) covered: Not sure'
        H09002L ='Health plan(s) covered: Not sure'
        H09003_O='Which health plan did you use most'
        H09003  ='Which health plan did you use most'
```

```
H09004_O='Yrs in a row with health plan'
H09004  ='Yrs in a row with health plan'
H09005_O='In lst yr:fclty use most for Health care'
H09005  ='In lst yr:fclty use most for Health care'
H09006_O='In lst yr:ill/injry/cond care right away'
H09006  ='In lst yr:ill/injry/cond care right away'
H09007_O='In lst yr:get urgnt care as soon as wntd'
H09007  ='In lst yr:get urgnt care as soon as wntd'
H09008_O='In lst yr:wait btwn try get care,see prv'
H09008  ='In lst yr:wait btwn try get care,see prv'
H09009_O='In lst yr:make appts non-urgnt hlth care'
H09009  ='In lst yr:make appts non-urgnt hlth care'
H09010_O='In lst yr:non-urg hlth cre appt whn wntd'
H09010  ='In lst yr:non-urg hlth cre appt whn wntd'
H09011_O='In lst yr:days btwn appt & see prvder'
H09011  ='In lst yr:days btwn appt & see prvder'
H09012_O='In lst yr:goto emrgncy rm for own care'
H09012  ='In lst yr:goto emrgncy rm for own care'
H09013_O='In lst yr:goto Dr office/clinic for care'
H09013  ='In lst yr:goto Dr office/clinic for care'
H09014  ='Lst yr: How often talk to doctor about illness prvntn'
H09014_O='Lst yr: How often talk to doctor about illness prvntn'
H09015  ='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
H09015_O='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
H09016  ='Lst yr: Did talk to doctor about pros/cons of trtmnt'
H09016_O='Lst yr: Did talk to doctor about pros/cons of trtmnt'
H09017  ='Lst yr: Did doctor ask which trtmnt option best for you'
H09017_O='Lst yr: Did doctor ask which trtmnt option best for you'
H09018_O='Rating of all health care in lst yr'
H09018  ='Rating of all health care in lst yr'
H09019_O='Have one person think of as personal Dr'
H09019  ='Have one person think of as personal Dr'
H09020  ='Lst yr: How often visit prsnl doctor for care for yourself'
H09020_O='Lst yr: How often visit prsnl doctor for care for yourself'
H09021_O='In lst yr:how oftn Drs listen to you'
H09021  ='In lst yr:how oftn Drs listen to you'
H09022_O='In lst yr:how oftn Drs explain things'
H09022  ='In lst yr:how oftn Drs explain things'
H09023_O='In lst yr:how oftn Drs show respect'
H09023  ='In lst yr:how oftn Drs show respect'
H09024_O='In lst yr:how oftn Drs spend enough time'
H09024  ='In lst yr:how oftn Drs spend enough time'
H09025  ='Lst yr: Did get care from doctor other than prsnl doctor'
H09025_O='Lst yr: Did get care from doctor other than prsnl doctor'
H09026   ='Lst yr: How often prsnl doctor seemed infrmd of care from other
doctors'
H09026_O='Lst yr: How often prsnl doctor seemed infrmd of care from other
doctors'
H09027_O='Rating of your personal Dr or nurs'
H09027  ='Rating of your personal Dr or nurs'
H09028  ='Lst yr: Did make any appointments to see spclst'
H09028_O='Lst yr: Did make any appointments to see spclst'
H09029  ='Lst yr: How often easy to get appointments with spclsts'
H09029_O='Lst yr: How often easy to get appointments with spclsts'
H09030  ='Lst yr: How many spclsts seen'
H09030_O='Lst yr: How many spclsts seen'
H09031_O='Rating of specialist seen in lst yr'
H09031  ='Rating of specialist seen in lst yr'
S09B01_O='Self rate of overall mental/emotional health'
S09B01  ='Self rate of overall mental/emotional health'
S09B02_O='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B02  ='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B03_O='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B03  ='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B04_O='Lst yr: Rate of treatmnt/cnslng received'
S09B04  ='Lst yr: Rate of treatmnt/cnslng received'
H09032  ='Lst yr: Did try to get care, test, or trtmnt through health plan'
H09032_O='Lst yr: Did try to get care, test, or trtmnt through health plan'
H09033  ='Lst yr: How often easy to get care, test, or trtmnt'
H09033_O='Lst yr: How often easy to get care, test, or trtmnt'
H09034  ='Lst yr: How often written material/Internet provide needed info'
H09034_O='Lst yr: How often written material/Internet provide needed info'
H09035    ='Lst yr: Did look for info from health plan on cost of
service/equipment'
```

```
            H09035_O='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of
service/equipment'
            H09036  ='Lst yr: How often able to find out cost of service/equipment'
            H09036_O='Lst yr: How often able to find out cost of service/equipment'
            H09037  ='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of  prescription
meds'
            H09037_O='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of  prescription
meds'
            H09038  ='Lst yr: How often able to find out cost of prescription meds'
            H09038_O='Lst yr: How often able to find out cost of prescription meds'
            H09039  ="Lst yr: Did try to get info/help from health plan's cstmr service"
            H09039_O="Lst yr: Did try to get info/help from health plan's cstmr service"
            H09040  ='Lst yr: How often did cstmr service give needed info/help'
            H09040_O='Lst yr: How often did cstmr service give needed info/help'
            H09041  ='Lst yr: How often did cstmr service treat with courtesy/respect'
            H09041_O='Lst yr: How often did cstmr service treat with courtesy/respect'
            H09042  ='Lst yr: Did health plan give any forms to fill out'
            H09042_O='Lst yr: Did health plan give any forms to fill out'
            H09043  ='Lst yr: How often were forms easy to fill out'
            H09043_O='Lst yr: How often were forms easy to fill out'
            H09044_O='In lst yr:send in any claims'
            H09044  ='In lst yr:send in any claims'
            H09045  ='Lst yr: How often did health plan handle claims quickly'
            H09045_O='Lst yr: How often did health plan handle claims quickly'
            H09046_O='In lst yr:how oftn handle claims correctly'
            H09046  ='In lst yr:how oftn handle claims correctly'
            H09047  ='Rating of all experience with hlth plan'
            H09047_O='Rating of all experience with hlth plan'
            H09048_O='Blood pressure: when lst reading'
            H09048  ='Blood pressure: when lst reading'
            H09049_O='Blood pressure: know if too high or not'
            H09049  ='Blood pressure: know if too high or not'
            H09050_O='When did you lst have a flu shot'
            H09050  ='When did you lst have a flu shot'
            H09051  ='Smoked at least 100 cigarettes in life'
            H09051_O='Smoked at least 100 cigarettes in life'
            H09052  ='Smoke everyday, some days or not at all'
            H09052_O='Smoke everyday, some days or not at all'
            H09053_O='Lst yr: # visits advised to quit smoking'
            H09053  ='Lst yr: # visits advised to quit smoking'
            H09054  ='# visits recom medic assist quit smoking'
            H09054_O='# visits recom medic assist quit smoking'
            H09055  ='# vist discu meth/strag asst quit smokng'
            H09055_O='# vist discu meth/strag asst quit smokng'
            S09D01_O='Have you used/tried smokeless tobacco products'
            S09D01  ='Have you used/tried smokeless tobacco products'
            S09D02_O='How often currently use smokeless tobacco products'
            S09D02  ='How often currently use smokeless tobacco products'
            S09D03_O='Do you use tobacco products other than cigarettes'
            S09D03  ='Do you use tobacco products other than cigarettes'
            S09D04_O='Lst yr: How often advised by doctor to stop'
            S09D04  ='Lst yr: How often advised by doctor to stop'
            H09056_O='Are you male or female'
            H09056  ='Are you male or female'
            H09057_O='Lst have a Pap smear test'
            H09057  ='Lst have a Pap smear test'
            H09058_O='Are you under age 40'
            H09058  ='Are you under age 40'
            H09059_O='Lst time: breasts checked mammography'
            H09059  ='Lst time: breasts checked mammography'
            H09060_O='Been pregnant in lst yr or pregnant now'
            H09060  ='Been pregnant in lst yr or pregnant now'
            H09061_O='In what trimester is your pregnancy'
            H09061  ='In what trimester is your pregnancy'
            H09062_O='Trimester first received prenatal care'
            H09062  ='Trimester first received prenatal care'
            H09063_O='In gnrl, how would you rate ovrall hlth'
            H09063  ='In gnrl, how would you rate ovrall hlth'
            H09064_O='Impairment/Hlth prblm limit activities'
            H09064  ='Impairment/Hlth prblm limit activities'
            H09065  ='Lst yr: Have seen doctor 3 or more times for same condition'
            H09065_O='Lst yr: Have seen doctor 3 or more times for same condition'
            H09066  ='Has condition lasted for at least 3 months'
            H09066_O='Has condition lasted for at least 3 months'
```

```
H09067  ='Need to take medicine prescribed by a doctor'
H09067_O='Need to take medicine prescribed by a doctor'
H09068  ='Medicine to treat condition that has lasted for at least 3 months'
H09068_O='Medicine to treat condition that has lasted for at least 3 months'
H09069FO='Height without shoes (feet)'
H09069F ='Height without shoes (feet)'
H09069IO='Height without shoes (inches)'
H09069I ='Height without shoes (inches)'
H09070_O='Weight without shoes'
H09070  ='Weight without shoes'
SREDA_O ='Highest grade completed'
SREDA   ='Highest grade completed'
H09071  ='Are you Spanish/Hispanic/Latino'
H09071AO='Not Spanish/Hispanic/Latino'
H09071A ='Not Spanish/Hispanic/Latino'
H09071BO='Mexican, Mexican American, Chicano'
H09071B ='Mexican, Mexican American, Chicano'
H09071CO='Puerto Rican'
H09071C ='Puerto Rican'
H09071DO='Cuban'
H09071D ='Cuban'
H09071EO='Other Spanish, Hispanic, or Latino'
H09071E ='Other Spanish, Hispanic, or Latino'
SRRACEAO='Race: White'
SRRACEA ='Race: White'
SRRACEBO='Race: Black or African American'
SRRACEB ='Race: Black or African American'
SRRACECO='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
SRRACEDO='Race: Asian'
SRRACED ='Race: Asian'
SRRACEEO='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
SRAGE_O ='What is your age now'
SRAGE   ='What is your age now'
H09072  ='Currently Covered Medicare Part A'
H09072_O='Currently Covered Medicare Part A'
H09073  ='Currently Covered Medicare Part B'
H09073_O='Currently Covered Medicare Part B'
H09074  ='Currently Covered Medicare Supplemental'
H09074_O='Currently Covered Medicare Supplemental'
S09N11_O='Prefer civilian or military facilities for hlth care'
S09N11  ='Prefer civilian or military facilities for hlth care'


N1   = "Coding Scheme Note 1"
N2   = "Coding Scheme Note 2"
N3   = "Coding Scheme Note 3"
N4   = "Coding Scheme Note 4"
N5   = "Coding Scheme Note 5"
N6   = "Coding Scheme Note 6"
N7   = "Coding Scheme Note 7"
N8   = "Coding Scheme Note 8"
N9   = "Coding Scheme Note 9"
N10  = "Coding Scheme Note 10"
N10A1= "Coding Scheme Note 10A1"
N11  = "Coding Scheme Note 11"
N12  = "Coding Scheme Note 12"
N13  = "Coding Scheme Note 13"
N14  = "Coding Scheme Note 14"
N15  = "Coding Scheme Note 15"
N16  = "Coding Scheme Note 16"
N17  = "Coding Scheme Note 17"
N18  = "Coding Scheme Note 18"
N18A1= "Coding Scheme Note 18A1"
N19A = "Coding Scheme Note 19A"
N19B = "Coding Scheme Note 19B"
N20  = "Coding Scheme Note 20"
N21  = "Coding Scheme Note 21"
N22  = "Coding Scheme Note 22"
N23  = "Coding Scheme Note 23"
N24  = "Coding Scheme Note 24"
```

```
MISS_1 = "Count of: Violates Skip Pattern"
MISS_4 = "Count of: Incomplete grid error"
MISS_5 = "Count of: Scalable reponse of Don't know"
MISS_6 = "Count of: Not applicable - valid skip"
MISS_7 = "Count of: Out-of-range error"
MISS_8 = "Count of: Multiple response error"
MISS_9 = "Count of: No response - invalid skip"
MISS_TOT = "Total number of missing responses"
XSEXA = "Male or Female  - R"
```

F.2.C   Q2FY2009\PROGRAMS\CODINGSCHEME\CSCHM09Q.SAS - IMPLEMENT CODING SCHEME AND CODING TABLES FOR QUARTER 2 FY2009.

```
*****************************************************************************;
*  Program:  Cschm09q.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.SD2 - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  CSCHM09Q.SD2 - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*           10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*            5/09/2002 - Change to logic in TFL supplement
*            3/17/2003 - Updated Variables names for Q1 2003
*            4/11/2003 - Added note 19a to accomodate Q1 2003 error where
*                        an option on most of the questionnaires was omitted for
*                        H03062
*            3/28/2008 - Updated Variable names for Q2 FY 2008
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschm09q.fmt
*
*****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY     "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN     v9 "..\..\DATA\AFINAL";
LIBNAME OUT     v9 "..\..\DATA\AFINAL";

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM09qV4;
%LET PERIOD=October 2007 to September, 2008;

/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H09001  H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
 H09002I H09002J H09002K H09002M H09002R H09002L H09003  H09004  H09005  H09006
 H09007  H09008  H09009  H09010  H09011  H09012  H09013  H09014  H09015  H09016
 H09017  H09018  H09019  H09020  H09021  H09022  H09023  H09024  H09025  H09026
 H09027  H09028  H09029  H09030  H09031
 S09B01  S09B02  S09B03  S09B04  H09032  H09033  H09034  H09035  H09036  H09037
 H09038  H09039  H09040  H09041  H09042  H09043  H09044  H09045  H09046  H09047
 H09048  H09049

 S09Q01  S09Q02  S09Q03  S09Q04  S09Q05

 H09050  H09051  H09052  H09053  H09054  H09055
 S09D01  S09D02  S09D03  S09D04  S09D05
 H09056  H09057  H09058  H09059  H09060  H09061  H09062  H09063  H09064  H09065
 H09066  H09067  H09068
 H09069F H09069I H09070
 SREDA   H09071A H09071B H09071C H09071D H09071E
 SRRACEA SRRACEB SRRACEC SRRACED SRRACEE SRAGE
 H09072  H09073  H09074  S09N11
 ;

/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H09001_O H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
 H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO H09003_O H09004_O H09005_O H09006_O
 H09007_O H09008_O H09009_O H09010_O H09011_O H09012_O H09013_O H09014_O H09015_O H09016_O
```

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```
     H09017_O H09018_O H09019_O H09020_O H09021_O H09022_O H09023_O H09024_O H09025_O H09026_O
     H09027_O H09028_O H09029_O H09030_O H09031_O
     S09B01_O S09B02_O S09B03_O S09B04_O H09032_O H09033_O H09034_O H09035_O H09036_O H09037_O
     H09038_O H09039_O H09040_O H09041_O H09042_O H09043_O H09044_O H09045_O H09046_O H09047_O
     H09048_O H09049_O

     S09Q01_O S09Q02_O S09Q03_O S09Q04_O S09Q05_O

     H09050_O H09051_O H09052_O H09053_O H09054_O H09055_O
     S09D01_O S09D02_O S09D03_O S09D04_O S09D05_O
     H09056_O H09057_O H09058_O H09059_O H09060_O H09061_O H09062_O H09063_O H09064_O H09065_O
     H09066_O H09067_O H09068_O
     H09069FO H09069IO H09070_O
     SREDA_O  H09071AO H09071BO H09071CO H09071DO H09071EO
     SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO SRAGE_O
     H09072_O H09073_O H09074_O S09N11_O
     ;

 TITLE  "DoD 2009 Survey Form A -- &PERIOD";
 TITLE2 "Apply Coding Scheme";




 DATA MERGESYN;

   SET IN.MERGESYN(RENAME=(H09070  = H09070CH
                          )
                     DROP= H09001A  H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA
                           H09002KA H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

                           H09003A H09004A H09005A H09006A H09007A H09008A H09009A H09010A H09011A
                           H09012A H09013A H09014A H09015A H09016A H09017A H09018A H09019A H09020A
                           H09021A H09022A H09023A H09024A H09025A H09026A H09027A H09028A H09029A
                           H09030A H09031A H09032A H09033A H09034A H09035A H09036A H09037A H09038A

                           S09B01A  S09B02A  S09B03A  S09B04A

                           S09D01A  S09D02A  S09D03A  S09D04A  S09D05A

                           S09N11A

                           S09Q01A  S09Q02A  S09Q03A  S09Q04A  S09Q05A

                           H09039A H09040A H09041A H09042A H09043A H09044A H09045A H09046A H09047A
 H09048A

                           H09049A H09050A H09051A H09052A H09053A H09054A H09055A H09056A H09057A
 H09058A

                           H09059A H09060A H09061A H09063A H09064A H09065A H09066A H09067A

                           H09068FA H09068IA H09069A H09070AA H09070BA H09070CA H09070DA H09070EA
                           SRACEAA  SRACEBA SRACECA SRACEDA SRACEEA SRAGEA SREDAA
                           H09068FNA H09068INA H09069NA
                  );

 ************************************************************************;
 * Code added by Jacqueline Agufa 09/15/2004 to fix name of race variable;
 ************************************************************************;

   RENAME SRACEA = SRRACEA;
   RENAME SRACEB = SRRACEB;
   RENAME SRACEC = SRRACEC;
   RENAME SRACED = SRRACED;
   RENAME SRACEE = SRRACEE;


   **** update variables with both filled items and check boxes
   **** Per Eric Schone;


   IF H09069F LT 1     THEN H09069F=H09069FN;
   IF H09069I IN (-9,.) THEN H09069I=H09069IN;
```

```
   H09070= COMPRESS(H09070CH,' ')*1;

   DROP H09070CH;


   IF H09070=0   AND H09070N=-9     THEN H09070 =H09070N;
   IF H09070<100 AND H09070N NE -9  THEN H09070 =H09070N;


   *** Correct odd height and weights Per Eric Schone;

   IF H09069F NOT IN (-9,.) THEN DO;
     IF H09069F < 2 OR
        H09069F > 8
     THEN H09069F= -7;
   END;

   IF 0 <= H09070 < 40 OR
     H09070 > 500
   THEN H09070= -7;

   IF VERSION=4 THEN OUTPUT MERGESYN;

RUN;



DATA OUT.CSCHM09qV4;

   LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
   INFORMAT &VARLIST2. 4.;
   %INCLUDE "CSCHM09q.FMT";


/* label and format statements for original variables */


   SET MERGESYN;



   ****************************************************************;
   **** Recodes for invalid responses:***************************;
   ****************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 2009 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

   SEX=PNSEXCD;
   AGE=INPUT(DAGEQY,8.);

   ARRAY RECODE(*) &VARLIST1;
   ARRAY   ORIG(*) &VARLIST2;

   DO I = 1 to DIM(ORIG);
       ORIG(I) = RECODE(I);
       IF ORIG(I) < 0 THEN DO;
               IF ORIG(I)= -9 THEN RECODE(I)=.;
           ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
           ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
           ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
           ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
           ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
           ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
           ELSE RECODE(I)=RECODE(I);
       END;
```

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```
   END;
   DROP I;




/* recode selected responses to be 1=marked, 2=unmarked */

   ARRAY   MARKED(*)
           H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
           H09002I H09002J H09002K H09002M H09002R H09002L

           H09071A H09071B H09071C H09071D H09071E
           SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
                   ;


   ARRAY INFORMAT(*)
           H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
           H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO

           H09071AO H09071BO H09071CO H09071DO H09071EO
           SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO

                   ;



   DO J=1 TO DIM(INFORMAT);
      IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
      ELSE MARKED(J)=2;
   END;
   DROP J;

   FORMAT
           H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
           H09002I H09002J H09002K H09002M H09002R H09002L

           H09071A H09071B H09071C H09071D H09071E
           SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
          MARKED.;


***********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;

/** Note 1 -- H09003, H09004 health plan usage  **/

  IF H09003 > 0 OR H09003 =.D THEN N1=1;
  ELSE IF H09003=.N  THEN DO;
     IF H09004 NOT=. THEN DO;
        N1=2;
        H09004=.C;
     END;
     ELSE DO;
        N1=3;
        H09004=.N;
     END;
  END;
  ELSE IF H09003=.   THEN N1=4;


/** Note 2 -- H09006,H09007,H09008:  illness or injury **/

  ARRAY NOTE2 H09007 H09008;
  N2MARK=0;
  N2NMISS=0;
  N2NN=0;

  DO OVER NOTE2;
     IF NOTE2 NE . THEN N2NMISS+1;
     IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
     IF NOTE2 EQ .N THEN N2NN+1;
```

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```
        END;


   IF H09006=1 AND N2NMISS=0 THEN DO;
        N2=1;
   END;
   ELSE IF H09006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
      H09006=2;
      N2=2;
      DO OVER NOTE2;
         IF NOTE2=. THEN NOTE2=.N;
         ELSE NOTE2=.C;
      END;
   END;
   ELSE IF H09006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
      DO OVER NOTE2;
         IF NOTE2=.N THEN NOTE2=.;
      END;
      N2=3;
   END;
   ELSE IF H09006=1 AND N2MARK>0 THEN DO;
      N2=4;
   END;
   ELSE IF H09006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
      H09007=.C;
      H09008=.C;
      N2=5;
   END;
   ELSE IF H09006 IN (2,.) AND N2MARK>0 THEN DO;
      H09006=1;
      N2=6;
      DO OVER NOTE2;
         IF NOTE2=.N THEN NOTE2=.;
      END;
   END;
   ELSE IF H09006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
      N2=7;
      DO OVER NOTE2;
         IF NOTE2=. THEN NOTE2=.N;
         ELSE NOTE2=.C;
      END;
   END;
   ELSE IF H09006=.  AND N2NMISS=0 THEN N2=8;


   DROP N2NMISS N2MARK N2NN;


/** Note 3 -- H09009,H09010,H09011:  regular or routine healthcare **/

   ARRAY Note3 H09010 H09011;
   N3MARK=0;
   N3NMISS=0;
   N3NN=0;

   DO OVER Note3;
      IF Note3 NE . THEN N3NMISS+1;
      IF Note3 NOT IN (.N,.) THEN N3MARK+1;
      IF Note3 EQ .N THEN N3NN+1;
   END;

   IF H09009=1 AND N3NMISS=0 THEN DO;
        N3=1;
   END;
   ELSE IF H09009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
      H09009=2;
      N3=2;
      DO OVER Note3;
         IF Note3=. THEN Note3=.N;
         ELSE Note3=.C;
      END;
   END;
   ELSE IF H09009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
      DO OVER Note3;
```

```
              IF Note3=.N THEN Note3=.;
           END;
         N3=3;
       END;
       ELSE IF H09009=1 AND N3MARK>0 THEN DO;
         N3=4;
       END;
       ELSE IF H09009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
         H09010=.C;
         H09011=.C;
         N3=5;
       END;
       ELSE IF H09009 IN (2,.) AND N3MARK>0 THEN DO;
         H09009=1;
         N3=6;
         DO OVER Note3;
           IF Note3=.N THEN Note3=.;
         END;
       END;
       ELSE IF H09009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
         N3=7;
         DO OVER Note3;
           IF Note3=. THEN Note3=.N;
           ELSE Note3=.C;
         END;
       END;
       ELSE IF H09009=.  AND N3NMISS=0 THEN N3=8;


       DROP N3NMISS N3MARK N3NN;


   /** Note 4 -- H09013, H09014-H09018: doctor's office or clinic **/

     ARRAY NOTE4  H09014-H09018;

     N4MARK=0;
     N4NMISS=0;

     DO OVER NOTE4;
        IF NOTE4 NE . THEN N4NMISS+1;
        IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
     END;


     IF H09013=1 THEN DO;
        N4=1;
        DO OVER NOTE4;
           IF NOTE4=. THEN NOTE4=.N;
           ELSE NOTE4=.C;
        END;
     END;
     ELSE IF H09013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
        H09013=1;
        N4=2;
        DO OVER NOTE4;
           IF NOTE4=. THEN NOTE4=.N;
           ELSE NOTE4=.C;
        END;
     END;
     ELSE IF H09013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
        DO OVER NOTE4;
           IF NOTE4=.N THEN NOTE4=.;
        END;
        N4=3;
     END;
     ELSE IF H09013=.  AND N4NMISS=0 THEN N4=4;
     ELSE IF H09013 IN (.) AND N4MARK>0 THEN DO;
        N4=5;
        DO OVER NOTE4;
           IF NOTE4=.N THEN NOTE4=.;
        END;
     END;
```

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```
  DROP N4NMISS N4MARK;


/** Note 5 -- H09015, H09016-H09017: doctor's office or clinic- treatment **/

 IF H09015 IN (.N,.C) THEN N5=1;
 ELSE IF H09015= 1  THEN N5=2;
 ELSE IF H09015 IN (2,.) AND H09016 IN (1,2) THEN  DO;
     N5=3;
     H09015=1;
 END;
 ELSE IF H09015 IN (2,.) AND (H09016 IN (3,4,.) AND H09017 IN (1,2)) THEN  DO;
     N5=4;
     H09015=1;
 END;
 ELSE IF H09015 IN (2) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
     N5=5;
     IF H09016 = . THEN H09016 = .N;
     ELSE H09016 = .C;
     IF H09017 = . THEN H09017 = .N;
     ELSE H09017 = .C;
 END;
 ELSE IF H09015 IN (.) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
     N5=6;
 END;



/** Note 6 -- H09019, H09020-H09027: personal doctor **/

  ARRAY NOTE6  H09021-H09027;

 N6MARK=0;
 N6NMISS=0;

 DO OVER NOTE6;
     IF NOTE6 NE . THEN N6NMISS+1;
     IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
 END;


  IF H09019 IN (1)  THEN DO;
     N6=1;
     IF H09027=.N THEN H09027=.;
  END;
  ELSE IF H09019 in (2,.) AND H09020=0 AND N6MARK=0 THEN DO; /***JMA 26 MAY 2009***/
     N6=2;
     H09019=2;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     H09020=.C;
  END;
  ELSE IF H09019 in (2,.) AND H09020>0 AND N6MARK=0 THEN DO; /***JMA 26 MAY 2009***/
     N6=3;
     H09019=1;
     H09027=.;
  END;
  ELSE IF H09019 in (2,.) AND N6MARK>0 THEN DO;
     N6=4;
     H09019=1;
     IF H09027=.N THEN H09027=.;                    /***JMA 26 MAY 2009***/
  END;
  ELSE IF H09019 in (2) THEN DO;
     N6=5;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
     IF H09020=. THEN H09020=.N;
     ELSE H09020=.C;
  END;
  ELSE IF H09019=. THEN N6=6;
```

```
   DROP N6NMISS N6MARK;


/** Note 7 -- H09020, H09021-H09026: personal doctor visit **/

  ARRAY NOTE7  H09021-H09026;

  N7MARK=0;
  N7NMISS=0;

  DO OVER NOTE7;
     IF NOTE7 NE . THEN N7NMISS+1;
     IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
  END;


  IF H09020 IN (.N, .C) THEN N7=1;
  ELSE IF H09020=0 THEN DO;
     N7=2;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
  END;
  ELSE IF H09020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
     H09020=0;
     N7=3;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
  END;
  ELSE IF H09020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
     DO OVER NOTE7;
        IF NOTE7=.N THEN NOTE7=.;
     END;
     N7=4;
  END;

  DROP N7NMISS N7MARK;



/** Note 8 -- H09025, H09026:  care from another doctor or healthcare provider **/

  IF H09025 IN (.N, .C) THEN N8=1;
  ELSE IF H09025=1 THEN N8=2;
  ELSE IF H09025 IN (2,.) AND H09026 IN (1,2,3,4) THEN DO;
     H09025=1;
     N8=3;
  END;
  ELSE IF H09025=2 AND H09026 IN (.) THEN DO;
     H09026=.N;
     N8=4;
  END;
  ELSE IF H09025=.  AND H09026=.  THEN N8=5;



/** Note 9 -- H09028, H09029-H09031:  needed to see a specialist in last 12 months **/

  ARRAY NOTE9  H09029 H09031;

  N9MARK=0;
  N9NMISS=0;

  DO OVER NOTE9;
     IF NOTE9 NE . THEN N9NMISS+1;
     IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
  END;

  IF H09030 NE . THEN N9NMISS+1;
  IF H09030 NOT IN (.,0) THEN N9MARK+1;
```

```
   IF H09028 IN (1)  THEN DO;
      N9=1;
      IF H09029=.N THEN H09029=.;
   END;
   ELSE IF H09028 in (2,.) AND N9MARK>0 THEN DO;
      N9=2;
      H09028=1;
      IF H09029=.N THEN H09029=.;
   END;
   ELSE IF H09028 in (2) THEN DO;
      N9=3;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
      IF H09030=. THEN H09030=.N;
      ELSE H09030=.C;
   END;
   ELSE IF H09028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
      N9=4;
      H09028=2;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
      IF H09030=. THEN H09030=.N;
      ELSE H09030=.C;
   END;
   ELSE IF H09028=.  AND N9NMISS=0 THEN N9=5;

   DROP N9NMISS N9MARK;


/** Note 10 -- H09030, H09031: saw a specialist in last 12 months **/

   IF H09030 IN (.N,.C) THEN N10=1;
   ELSE IF H09030 IN (1,2,3,4,5) AND H09031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
   ELSE IF H09030 IN (1,2,3,4,5,.) AND H09031=.N THEN DO;
      H09030=0;
      H09031=.C;
      N10=3;
   END;
   ELSE IF H09030 = 0 THEN DO;
      IF H09031=. THEN H09031=.N;
      ELSE H09031=.C;
      N10=4;
   END;
   ELSE IF H09030=. THEN N10=5;


/** Note 10A1 -- S09B02, S09B03-S09B04: overall mental health **/

   ARRAY NOTE10A1  S09B03-S09B04;

   N10A1MARK=0;
   N10A1NMISS=0;

   DO OVER NOTE10A1;
      IF NOTE10A1 NE . THEN N10A1NMISS+1;
      IF NOTE10A1 NOT IN  (., .N) THEN N10A1MARK+1;
   END;

   IF S09B02 = 1 THEN DO;
      DO OVER NOTE10A1;
         IF NOTE10A1=.N THEN NOTE10A1=.;
      END;
      N10A1=1;
   END;
   ELSE IF S09B02 IN (2,.) AND (N10A1MARK>0) THEN DO;
      N10A1=2;
      S09B02=1;
   END;
```

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```
      ELSE IF S09B02=2  AND (N10A1NMISS=0 OR (N10A1NMISS > 0 AND N10A1MARK = 0)) THEN DO;
         N10A1=3;
         DO OVER NOTE10A1;
             IF NOTE10A1 = . THEN NOTE10A1=.N;
             ELSE NOTE10A1 = .C;
         END;
      END;
      ELSE IF S09B02 IN (.) AND (N10A1NMISS > 0 AND N10A1MARK = 0) THEN DO;
         N10A1=4;
         S09B02=2;
         DO OVER NOTE10A1;
             IF NOTE10A1 = . THEN NOTE10A1=.N;
             ELSE NOTE10A1 = .C;
         END;
      END;
      ELSE IF S09B02 IN (.) AND N10A1NMISS=0 THEN N10A1=5;

      DROP N10A1NMISS N10A1MARK;


/** Note 11 -- H09032, H09033:  tried to get care, tests, or treatment from health plan**/

   IF H09032=1 AND H09033 IN (1,2,3,4,.) THEN N11=1;
   ELSE IF H09032 IN (1,.) AND H09033=.N THEN DO;
      H09032=2;
      H09033=.C;
      N11=2;
   END;
   ELSE IF H09032 IN (2,.) AND H09033 IN (1,2,3,4) THEN DO;
      H09032=1;
      N11=3;
   END;
   ELSE IF H09032=2 AND H09033 IN (.,.N) THEN DO;
      IF H09033=. THEN H09033=.N;
      ELSE H09033=.C;
      N11=4;
   END;
   ELSE IF H09032=.  AND H09033=.  THEN N11=5;


/** Note 12 -- H09035, H09036:  tried to get cost of service/equipment from health plan**/

   IF H09035=1 AND H09036 IN (1,2,3,4,.) THEN N12=1;
   ELSE IF H09035 IN (1,.) AND H09036=.N THEN DO;
      H09035=2;
      H09036=.C;
      N12=2;
   END;
   ELSE IF H09035 IN (2,.) AND H09036 IN (1,2,3,4) THEN DO;
      H09035=1;
      N12=3;
   END;
   ELSE IF H09035=2 AND H09036 IN (.,.N) THEN DO;
      IF H09036=. THEN H09036=.N;
      ELSE H09036=.C;
      N12=4;
   END;
   ELSE IF H09035=.  AND H09036=.  THEN N12=5;


/** Note 13 -- H09037, H09038:  tried to get cost of prescription meds from health plan**/

   IF H09037=1 AND H09038 IN (1,2,3,4,.) THEN N13=1;
   ELSE IF H09037 IN (1,.) AND H09038=.N THEN DO;
      H09037=2;
      H09038=.C;
      N13=2;
   END;
   ELSE IF H09037 IN (2,.) AND H09038 IN (1,2,3,4) THEN DO;
      H09037=1;
      N13=3;
   END;
   ELSE IF H09037=2 AND H09038 IN (.,.N) THEN DO;
      IF H09038=. THEN H09038=.N;
```

```
      ELSE H09038=.C;
      N13=4;
    END;
    ELSE IF H09037=.  AND H09038=.  THEN N13=5;


 /** Note 14 -- H09039, H09040-H09041: tried to use health plan's customer service  **/

   ARRAY NOTE14  H09040-H09041;

   N14MARK=0;
   N14NMISS=0;

   DO OVER NOTE14;
      IF NOTE14 NE . THEN N14NMISS+1;
      IF NOTE14 NOT IN  (., .N) THEN N14MARK+1;
   END;

   IF H09039 = 1 AND (N14MARK>0 OR N14NMISS=0) THEN DO;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
      N14=1;
   END;
   ELSE IF H09039 IN (1,.) AND (N14NMISS > 0 AND N14MARK = 0) THEN DO;
      N14=2;
      H09039=2;
      DO OVER NOTE14;
         IF NOTE14 = . THEN NOTE14=.N;
         ELSE NOTE14 = .C;
      END;
   END;
   ELSE IF H09039 IN (2,.) AND (N14MARK>0) THEN DO;
      N14=3;
      H09039=1;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
   END;
   ELSE IF H09039=2  AND (N14NMISS=0 OR (N14NMISS > 0 AND N14MARK = 0)) THEN DO;
      N14=4;
      DO OVER NOTE14;
         IF NOTE14 = . THEN NOTE14=.N;
         ELSE NOTE14 = .C;
      END;
   END;
   ELSE IF H09039 IN (.) AND N14NMISS=0 THEN N14=5;

   DROP N14NMISS N14MARK;


 /** Note 15 -- H09042, H09043:  received forms to fill out from health plan **/

   IF H09042=1 AND H09043 IN (1,2,3,4,.) THEN N15=1;
   ELSE IF H09042 IN (1,.) AND H09043=.N THEN DO;
      H09042=2;
      H09043=.C;
      N15=2;
   END;
   ELSE IF H09042 IN (2,.) AND H09043 IN (1,2,3,4) THEN DO;
      H09042=1;
      N15=3;
   END;
   ELSE IF H09042=2 AND H09043 IN (.,.N) THEN DO;
      IF H09043=. THEN H09043=.N;
      ELSE H09043=.C;
      N15=4;
   END;
   ELSE IF H09042=.  AND H09043=.  THEN N15=5;


 /** Note 16 -- H09044, H09045-H09046: claims to health plan **/

   ARRAY NOTE16 H09045-H09046;
```

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```
   N16MARK=0;
   N16NMISS=0;
   N16NDK=0;

   DO OVER NOTE16;
      IF NOTE16 NE . THEN N16NMISS+1;
      IF NOTE16 NOT IN (.N,.D,.) THEN N16MARK+1;
      IF NOTE16 NOT IN (.,.D) THEN N16NDK+1;
   END;

   IF H09044=1 AND
      (N16NMISS=0 OR N16MARK>0 OR N16NDK=0)
   THEN DO;
      N16=1;
      DO OVER NOTE16;
         IF NOTE16=.N THEN NOTE16=.;
      END;
   END;
   ELSE IF H09044 IN (1,.,.D) AND N16NMISS>0 AND N16MARK=0 AND N16NDK>0 THEN DO;
      N16=2;
      H09044=2;
      DO OVER NOTE16;
         IF NOTE16=. THEN NOTE16=.N;
         ELSE NOTE16=.C;
      END;
   END;
   ELSE IF H09044 IN (2,.,.D) AND N16MARK>0
         THEN DO;
      H09044=1;
      N16=3;
      DO OVER NOTE16;
         IF NOTE16=.N THEN NOTE16=.;
      END;
   END;
   ELSE IF H09044 IN (2) AND N16MARK=0 THEN DO;
      N16=4;
      DO OVER NOTE16;
         IF NOTE16=. THEN NOTE16=.N;
         ELSE NOTE16=.C;
      END;
   END;
   ELSE IF H09044 IN (.D) AND (N16NMISS=0 OR N16NDK=0) THEN DO;
      N16=5;
      DO OVER NOTE16;
         IF NOTE16=. THEN NOTE16=.N;
         ELSE NOTE16=.C;
      END;
   END;
   ELSE IF H09044 IN (.) AND (N16NMISS=0 OR N16NDK=0) THEN N16=6;

   DROP N16NMISS N16MARK N16NDK;


/** NOTE16A1  -- S09Q01, S09Q02: Blood stool test   **/

   IF S09Q01=1 AND S09Q02 IN (1,2,3,4,.,.D) THEN N16A1=1;
   ELSE IF S09Q01 IN (1,.) AND S09Q02=.N THEN DO;
      S09Q01=2;
      S09Q02=.C;
      N16A1=2;
   END;
   ELSE IF S09Q01 IN (2,.D, .) AND S09Q02 IN (1,2,3,4) THEN DO;
      S09Q01=1;
      N16A1=3;
   END;
   ELSE IF S09Q01 IN (2, .D) AND S09Q02 IN (.N,.,.D) THEN DO;
      IF S09Q02=. THEN  S09Q02=.N;
      ELSE S09Q02=.C;
      N16A1=4;
   END;
   ELSE IF S09Q01=.  AND S09Q02 IN (., .D)  THEN N16A1=5;


/** Note 16A2 -- S09Q03, S09Q04-S09Q05: Sigmoidoscopy and colonoscopy **/
```

```
  ARRAY NOTE16A2 S09Q04-S09Q05;
 N16A2MARK=0;
 N16A2NMISS=0;
 N16A2NDK=0;

 DO OVER NOTE16A2;
    IF NOTE16A2 NE . THEN N16A2NMISS+1;
    IF NOTE16A2 NOT IN (.N,.) THEN N16A2MARK+1;
    IF NOTE16A2 NOT IN (.,.D) THEN N16A2NDK+1;
 END;

 IF S09Q03=1 AND
    (N16A2NMISS=0 OR (N16A2MARK>0 and N16A2NDK>0) or (N16A2NMISS>0 AND N16A2NDK=0))
 THEN DO;
    N16A2=1;
 END;
 ELSE IF S09Q03 IN (1,.,.D) AND N16A2NMISS>0 AND N16A2MARK=0 THEN DO;
    N16A2=2;
    S09Q03=2;
    DO OVER NOTE16A2;
       IF NOTE16A2=. THEN NOTE16A2=.N;
       ELSE NOTE16A2=.C;
    END;
 END;
 ELSE IF S09Q03 IN (2,.,.D) AND
         ((N16A2MARK>0 AND N16A2NDK>0) OR (N16A2NMISS>0 AND N16A2NDK=0))
      THEN DO;
    S09Q03=1;
    N16A2=3;
 END;
 ELSE IF S09Q03 IN (2) AND (N16A2NMISS=0 OR (N16A2NMISS>0 AND N16A2MARK=0)) THEN DO;
    N16A2=4;
    DO OVER NOTE16A2;
       IF NOTE16A2=. THEN NOTE16A2=.N;
       ELSE NOTE16A2=.C;
    END;
 END;
 ELSE IF S09Q03 IN (.D) AND N16A2NMISS=0 THEN DO;
    N16A2=5;
    DO OVER NOTE16A2;
       NOTE16A2=.N;
    END;
 END;
 ELSE IF S09Q03 IN (.)  AND N16A2NMISS=0 THEN N16A2=6;

 DROP N16A2NMISS N16A2MARK N16A2NDK;




/** Note 17 -- smoking:  H09051, H09052-H09055  **/

 ARRAY NOTE17 H09053 H09054 H09055;

 IF H09051=1 and H09052 IN (3,4) THEN DO;  /* still smoke */
    N17=1;
 END;
 ELSE IF H09051=1 AND H09052 IN (2,.D) THEN DO;  /* quit */
    DO OVER NOTE17;
       IF NOTE17=. THEN NOTE17=.N;
       ELSE NOTE17=.C;
    END;
    N17=2;
 END;
 ELSE IF H09051=1 AND H09052 = . THEN DO;  /* don't know */
    N17=3;
 END;
 ELSE IF H09051 IN (2,.D,.) AND H09052 IN (3,4) THEN DO;
    H09051=1;

    N17=4;
 END;
 ELSE IF H09051 IN (2,.D) AND H09052 IN (2,.D, .) THEN DO; /*never smoke*/
```

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```
      /* JMA March 25 2004,
         Updated because H09054 and H09055 have been added to the
         skip pattern */

      IF H09052 NE . THEN H09052 =.C;
      ELSE H09052=.N;

      DO OVER NOTE17;
         IF NOTE17=. THEN NOTE17=.N;
         ELSE NOTE17=.C;
      END;

      N17=5;
   END;
   ELSE IF H09051 IN ( .) THEN DO;
      IF (H09052 IN (2,.) AND
         (H09053 IN (2,3,4,5) OR H09054 IN (2,3,4,5) OR H09055 IN (2,3,4,5)))
      THEN DO;
         /* JMA March 25 2004,
            Updated because H09054 and H09055 have been added to the
            skip pattern */

         H09051=1;
         N17=6;
      END;
      ELSE IF H09052 IN (2,.) THEN DO; /*MRE/blank*/
             N17=7;

      END;
      ELSE IF H09052=.D THEN DO; /*MRE/blank*/
         /* JMA March 25 2004,
            Updated because H09054 and H09055 have been added to the
            skip pattern */

          DO OVER NOTE17;
            IF NOTE17=. THEN NOTE17=.N;
            ELSE NOTE17=.C;
          END;

         N17=8;
      END;
   END;


/** Note 18 -- advice from doctor on smoking:  H09053-H09055  **/

   IF H09053 EQ .N THEN DO;              /* jma Sep 19 2006 */
      IF H09054 IN (.,.N) THEN H09054 = .N;
      ELSE H09054=.C;
      IF H09055 IN (.,.N) THEN H09055 = .N;
      ELSE H09055=.C;
      N18=1;
   END;
   ELSE IF H09053 EQ .C THEN DO;               /* jma fEB 19 2008 */
      N18=2;
   END;
   ELSE IF H09053 EQ 1 AND (H09054 =.N AND H09055=.N) THEN DO; /* jma May 10 2007 */
       H09054 = 1;
       H09055 = 1;
       N18=3;
   END;
   ELSE IF H09053 EQ 1 AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
       H09054 = 1;
       N18=4;
   END;
   ELSE IF H09053 EQ 1 AND (H09055=.N) THEN DO; /* jma May 10 2007 */
       H09055 = 1;
       N18=5;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N AND H09055= .N) THEN DO; /* jma May 10 2007 */
       H09054 = .;
       H09055 = .;
       N18=6;
   END;
```

```
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
       H09054 = .;
       N18=7;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09055= .N) THEN DO; /* jma May 10 2007 */
       H09055 = .;
       N18=8;
   END;
   ELSE IF H09053 GE 1 AND (H09054 > H09053 AND H09055 > H09053) THEN DO; /* jma May 10 2007 */
       H09054 = H09053;
       H09055 = H09053;
       N18=9;
   END;
   ELSE IF H09053 GE 1 AND (H09054 > H09053) THEN DO; /* jma May 10 2007 */
       H09054 = H09053;
       N18=10;
   END;
   ELSE IF H09053 GE 1 AND (H09055 > H09053) THEN DO; /* jma May 10 2007 */
       H09055 = H09053;
       N18=11;
   END;
   ELSE IF H09053 GE 1 AND ((H09054 <= H09053 or H09054 = . ) AND (H09055 <= H09053 or
H09055=.))
   THEN DO; /* jma Feb 19 2007 */
       N18=12;
   END;
   ELSE IF (H09053=. AND H09054 IN (1,2,3,4,5,.) AND H09055 IN (1,2,3,4,5,.))
   THEN DO; /* jma Feb 19 2007 */
       N18=13;
   END;


/** Note 18A1 -- S09D01, S09D02, S09D05: chewing tobacco **/


  IF S09D01=1 AND S09D02 IN (1,2,.) THEN DO;
     N18A1=1;
  END;
  ELSE IF S09D01 IN (1,.) AND S09D02=3 THEN DO;
     N18A1=2;
     IF S09D05 IN (.) THEN S09D05 = .N;
     ELSE S09D05 = .C;
  END;
  ELSE IF S09D01 IN (2,.,.D) AND S09D02 IN (1,2) THEN DO;
     N18A1=3;
     S09D01=1;
  END;
  ELSE IF S09D01 IN (2,.D) AND S09D02 IN (3,.) THEN DO;
     N18A1=4;
     IF S09D02 IN (3) THEN S09D02 = .C;
     ELSE S09D02 = .N;
     IF S09D05 IN (.) THEN S09D05 = .N;
     ELSE S09D05 = .C;
  END;
  ELSE IF S09D01 IN (.) AND S09D02 IN (.) THEN DO;
     N18A1=5;
  END;


/** Note 19 - gender H09056, SEX, H09057--H09062,
              XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


  ARRAY fmaleval H09057 H09058 H09059 H09060 H09061 H09062
                 ;

  cntfmale=0;
  DO OVER fmaleval;            /* mammogram/pap smear/PREGNANT*/
     IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;
```

```
   IF cntfmale>0 THEN FMALE=1;
   ELSE FMALE = 0;


   IF H09056=. THEN DO;
      IF (SEX='F' AND FMALE) THEN DO;
         N19a=1;
         XSEXA=2;
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N19a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N19a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N19a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N19a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N19a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N19a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H09056=1) THEN DO;
      IF FMALE=0 THEN DO;
         N19a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N19a=9;
            XSEXA=2;
         END;
         ELSE DO;
            N19a=10;
            XSEXA=1;
         END;
      END;
   END;
   ELSE IF (H09056=2) THEN DO;
      IF FMALE THEN DO;
        N19a=11;
        XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N19a=12;
           XSEXA=1;
         END;
         ELSE DO;
            N19a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

   ARRAY NOTE19b H09057 H09058 H09059 H09060 H09061 H09062
               ;
   IF XSEXA=1 THEN DO;   /* male */
```

```
      IF FMALE=0 THEN DO;
          N19b=1;
          DO OVER NOTE19b;
             NOTE19b=.N;
          END;
      END;   /* valid skip */
      ELSE IF FMALE=1 THEN DO;
          N19b=2;
          DO OVER NOTE19b;
             IF NOTE19b=. THEN NOTE19b = .N;
             ELSE NOTE19b=.C;
          END;
      END;   /* inconsistent response */
   END;
   ELSE IF XSEXA=2 THEN  N19b=3; /* female */
   ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
      N19b=4;
      DO OVER NOTE19b;
         NOTE19b=.;
      END;
   END;


   DROP FMALE CNTFMALE;


/* Note 20- breast exam for female 40 or over  */

   IF XSEXA=1 THEN DO;  /* male */
      IF  (H09058=.C OR H09058=.N) AND (H09059=.C OR H09059=.N)
      THEN N20 = 1;
   END;
   ELSE IF XSEXA=2 THEN DO;
      IF H09058=2 THEN N20=2;           /* female 40 or over */
      ELSE IF H09058=1 THEN DO;    /* female < 40 */
         IF H09059 NE . THEN H09059=.C;
         ELSE H09059=.N;
         N20=3;
      END;
      ELSE IF H09058=. THEN DO;
         IF H09059 NE . THEN DO;
            H09058=2;
            N20=4;
         END;
         ELSE IF H09059=.  THEN DO;
            IF AGE<40 THEN DO;
               H09058 = 1;
               H09059=.N;
               N20=5;
            END;
            ELSE IF AGE >= 40 THEN DO;
               H09058=2;
               N20=6;
            END;
            ELSE IF AGE=. THEN N20=7;
         END;
      END;
   END;
   ELSE IF XSEXA=. THEN N20=8;



/* Note 21 - gender vs Pregnancy */


   IF XSEXA=1 THEN N21=1;            /* male    */
   ELSE IF XSEXA=2 THEN DO;          /* female   */
      IF H09060=1 THEN DO;           /* pregnant */
         IF H09061=1 THEN DO;
             N21=2;
             IF H09062=. THEN H09062 = .N;
             ELSE H09062=.C;
         END;
         ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
```

```
                N21=3;
                H09062=.;
            END;
            ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
                N21=4;
            END;
            ELSE IF H09061 IN (3,.) THEN N21=5;
        END;
        ELSE IF H09060=2 THEN DO;
            IF H09061=. THEN H09061 = .N;
            ELSE H09061=.C;
            N21=6;
        END;
        ELSE IF H09060=3 THEN DO;
            N21=7;
            IF H09061=. THEN H09061 = .N;
            ELSE H09061=.C;
            IF H09062=. THEN H09062=.N;
            ELSE H09062=.C;
        END;
        ELSE IF H09060 IN (.) THEN DO;
            IF H09061=1 THEN DO;
                N21=8;
                H09060=1;
                IF H09062=. THEN H09062 = .N;
                ELSE H09062=.C;
            END;
            ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
                N21=9;
                H09060=1;
                H09062=.;
            END;
            ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
                H09060=1;
                N21=10;
            END;
            ELSE IF H09061=3 THEN DO;
                H09060=1;
                N21=11;
            END;
            ELSE IF H09061=. THEN DO;
                N21=12;
            END;
        END;
    END;
  END;
  ELSE IF XSEXA=. AND H09060 IN (.) THEN N21=13;




  DROP AGE SEX;


/** Note 22 -- H09065, H09066:  seen doctor 3 or more times for same condition **/

  IF H09065=1 THEN N22=1;
  ELSE IF H09065 IN (2,.) AND H09066 IN (1,2) THEN DO;
     H09065=1;
     N22=2;
  END;
  ELSE IF H09065=2 AND H09066 IN (.) THEN DO;
     H09066=.N;
     N22=3;
  END;
  ELSE IF H09065=.  AND H09066=.  THEN N22=4;


/** Note 23 -- H09067, H09068:  need or take medicine prescribed by a doctor **/

  IF H09067=1 THEN N23=1;
  ELSE IF H09067 IN (2,.) AND H09068 IN (1,2) THEN DO;
     H09067=1;
     N23=2;
  END;
  ELSE IF H09067=2 AND H09068 IN (.) THEN DO;
```

```
      H09068=.N;
      N23=3;
   END;
   ELSE IF H09067=.  AND H09068=.  THEN N23=4;


/** Note 24 -- H09071, H09071A-H09071E: Hispanic or Latino origin or descent **/

   /* JMA
   ****Multiple responses were given to this question so H09071 is being created
   ****from the multiple responses.;
   */


   IF H09071B=1 THEN DO;
      N24=1;
      H09071=2;
   END;
   ELSE IF H09071E=1 THEN DO;
      N24=2;
      H09071=5;
   END;
   ELSE IF H09071C=1 THEN DO;
      N24=3;
      H09071=3;
   END;
   ELSE IF H09071D=1 THEN DO;
      N24=4;
      H09071=4;
   END;
   ELSE IF H09071A=1 THEN DO;
      N24=5;
      H09071=1;
   END;
   ELSE IF H09071A IN (2,.) AND H09071B IN (2,.) AND H09071C IN (2,.) AND
          H09071D IN (2,.) AND H09071E IN (2,.) THEN DO;
      N24=6;
      H09071=.;

   END;


NOSURVEY:

/* missing values */

   ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
   MISS_TOT=0;
   DO OVER MISS;
      MISS = 0;
   END;
   ARRAY MISSARAY &VARLIST2.;

   DO OVER MISSARAY;
      IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
      ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
      ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
      ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
      ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
      ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
      ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
   END;
   DO OVER MISS;
      MISS_TOT=MISS_TOT + MISS;
   END;

*****************************************;

 OUTPUT;

RUN;

proc contents data=out.cschm09qV4;
run;
```

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

     FORMAT H09001    H09001_O YN.

            H09003    H09003_O HPLAN1_.
            H09004    H09004_O HPTIME.
            H09005    H09005_O PLACE.

            H09006 H09006_O   H09009 H09009_O   H09019 H09019_O
              YN.

            H09007    H09007_O OFTEN2_.
            H09008    H09008_O TIME1_.

            H09010    H09010_O OFTEN3_.
            H09011    H09011_O TIME2_.
            H09012    H09012_O OFTEN4_.
            H09013    H09013_O OFTEN4_.
            H09014    H09014_O OFTEN8_.
            H09015    H09015_O YN.
            H09016    H09016_O YNDEF.
            H09017    H09017_O YNDEF.
            H09018    H09018_O RATE3_.

            H09020    H09020_O OFTEN10_.

            H09021-H09024   H09021_O--H09024_O OFTEN5_.

            H09025    H09025_O YN.
            H09026    H09026_O OFTEN8_.
            H09027    H09027_O RATE6_.
            H09028    H09028_O YN.
            H09029    H09029_O OFTEN9_.
            H09030    H09030_O SPCLST.
            H09031    H09031_O RATE2_.

            S09B01 S09B01_O MNTLHLTH.
            S09B02 S09B02_O YN.
            S09B03 S09B03_O PROB1_.
            S09B04 S09B04_O RATE5_.

            H09032    H09032_O YN.
            H09033    H09033_O OFTEN11_.
            H09034    H09034_O OFTEN12_.
            H09035    H09035_O YN.
            H09036    H09036_O OFTEN13_.
            H09037    H09037_O YN.
            H09038    H09038_O OFTEN14_.
            H09039    H09039_O YN.
            H09040    H09040_O OFTEN15_.
            H09041    H09041_O OFTEN15_.
            H09042    H09042_O YN.
            H09043    H09043_O OFTEN16_.
            H09044    H09044_O YNDNK.
            H09045    H09045_O OFTEN6_.
            H09046    H09046_O OFTEN6_.
            H09047    H09047_O RATE4_.
            H09048    H09048_O TIME5_.
            H09049    H09049_O YNBP_.

            S09Q01    S09Q01_O YNdnk.
            S09Q02    S09Q02_O colon1_.
            S09Q03    S09Q03_O YNdnk.
            S09Q04    S09Q04_O colon2_.
            S09Q05    S09Q05_O colon3_.

            H09050    H09050_O TIME7_.
            H09051    H09051_O YNDNK.
            H09052    H09052_O TIME8_.
```

```
H09053   H09053_O OFTEN7_.
H09054   H09054_O OFTEN7_.
H09055   H09055_O OFTEN7_.

S09D01 S09D01_O YNDNK.
S09D02 S09D02_O TIME15_.
S09D03 S09D03_O YNDNK.
S09D04 S09D04_O VISIT.
S09D05 S09D05_O POUCH.

H09056   H09056_O SEX.
H09057   H09057_O TIME11_.

H09058 H09058_O   H09064 H09064_O
   YN.

H09059   H09059_O TIME12_.
H09060   H09060_O YNPREG.
H09061   H09061_O PREG1_.
H09062   H09062_O PREG2_.
H09063   H09063_O HEALTH.

H09065   H09065_O YN.
H09066   H09066_O YN.
H09067   H09067_O YN.
H09068   H09068_O YN.

H09069F H09069FO
H09069I H09069IO
H09070  H09070_O
   TIME14_.

SREDA    SREDA_O  EDUC.

H09071            HISP.

SRAGE    SRAGE_O  AGEGRP.

H09072   H09072_O MEDA.
H09073   H09073_O MEDB.
H09074   H09074_O MEDSUPP.

S09N11 S09N11_O S09N11_.

MISS_1   MISS_4-MISS_9 MISS_TOT 4.
;


LABEL H09001_O='Are you the person listed on envelope'
      H09001  ='Are you the person listed on envelope'
      H09002AO='Health plan(s) covered: TRICARE Prime'
      H09002A ='Health plan(s) covered: TRICARE Prime'
      H09002CO='Health plan(s) covered: TRICARE Ext/Stnd'
      H09002C ='Health plan(s) covered: TRICARE Ext/Stnd'
      H09002NO='Health plan(s) covered: TRICARE Plus'
      H09002N ='Health plan(s) covered: TRICARE Plus'
      H09002OO='Health plan(s) covered: TRICARE For Life'
      H09002O ='Health plan(s) covered: TRICARE For Life'
      H09002PO='Health plan(s) covered: TRICARE Supplmntl Ins'
      H09002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
      H09002QO='Health plan(s) covered: TRICARE Reserve Select'
      H09002Q ='Health plan(s) covered: TRICARE Reserve Select'
      H09002FO='Health plan(s) covered: Medicare'
      H09002F ='Health plan(s) covered: Medicare'
      H09002GO='Health plan(s) covered: FEHBP'
      H09002G ='Health plan(s) covered: FEHBP'
      H09002HO='Health plan(s) covered: Medicaid'
      H09002H ='Health plan(s) covered: Medicaid'
      H09002IO='Health plan(s) covered: Civilian HMO'
      H09002I ='Health plan(s) covered: Civilian HMO'
      H09002JO='Health plan(s) covered: Other civilian'
      H09002J ='Health plan(s) covered: Other civilian'
      H09002KO='Health plan(s) covered: USFHP'
      H09002K ='Health plan(s) covered: USFHP'
```

```
             H09002MO='Health plan(s) covered: Veterans'
             H09002M ='Health plan(s) covered: Veterans'
             H09002RO='Health plan(s) covered: Gov Hlth ins-other cntry'
             H09002R ='Health plan(s) covered: Gov Hlth ins-other cntry'
             H09002LO='Health plan(s) covered: Not sure'
             H09002L ='Health plan(s) covered: Not sure'
             H09003_O='Which health plan did you use most'
             H09003  ='Which health plan did you use most'
             H09004_O='Yrs in a row with health plan'
             H09004  ='Yrs in a row with health plan'
             H09005_O='In lst yr:fclty use most for Health care'
             H09005  ='In lst yr:fclty use most for Health care'
             H09006_O='In lst yr:ill/injry/cond care right away'
             H09006  ='In lst yr:ill/injry/cond care right away'
             H09007_O='In lst yr:get urgnt care as soon as wntd'
             H09007  ='In lst yr:get urgnt care as soon as wntd'
             H09008_O='In lst yr:wait btwn try get care,see prv'
             H09008  ='In lst yr:wait btwn try get care,see prv'
             H09009_O='In lst yr:make appts non-urgnt hlth care'
             H09009  ='In lst yr:make appts non-urgnt hlth care'
             H09010_O='In lst yr:non-urg hlth cre appt whn wntd'
             H09010  ='In lst yr:non-urg hlth cre appt whn wntd'
             H09011_O='In lst yr:days btwn appt & see prvder'
             H09011  ='In lst yr:days btwn appt & see prvder'
             H09012_O='In lst yr:goto emrgncy rm for own care'
             H09012  ='In lst yr:goto emrgncy rm for own care'
             H09013_O='In lst yr:goto Dr office/clinic for care'
             H09013  ='In lst yr:goto Dr office/clinic for care'
             H09014  ='Lst yr: How often talk to doctor about illness prvntn'
             H09014_O='Lst yr: How often talk to doctor about illness prvntn'
             H09015  ='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
             H09015_O='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
             H09016  ='Lst yr: Did talk to doctor about pros/cons of trtmnt'
             H09016_O='Lst yr: Did talk to doctor about pros/cons of trtmnt'
             H09017  ='Lst yr: Did doctor ask which trtmnt option best for you'
             H09017_O='Lst yr: Did doctor ask which trtmnt option best for you'
             H09018_O='Rating of all health care in lst yr'
             H09018  ='Rating of all health care in lst yr'
             H09019_O='Have one person think of as personal Dr'
             H09019  ='Have one person think of as personal Dr'
             H09020  ='Lst yr: How often visit prsnl doctor for care for yourself'
             H09020_O='Lst yr: How often visit prsnl doctor for care for yourself'
             H09021_O='In lst yr:how oftn Drs listen to you'
             H09021  ='In lst yr:how oftn Drs listen to you'
             H09022_O='In lst yr:how oftn Drs explain things'
             H09022  ='In lst yr:how oftn Drs explain things'
             H09023_O='In lst yr:how oftn Drs show respect'
             H09023  ='In lst yr:how oftn Drs show respect'
             H09024_O='In lst yr:how oftn Drs spend enough time'
             H09024  ='In lst yr:how oftn Drs spend enough time'
             H09025  ='Lst yr: Did get care from doctor other than prsnl doctor'
             H09025_O='Lst yr: Did get care from doctor other than prsnl doctor'
             H09026   ='Lst yr: How often prsnl doctor seemed infrmd of care from other
doctors'
             H09026_O='Lst yr: How often prsnl doctor seemed infrmd of care from other
doctors'
             H09027_O='Rating of your personal Dr or nurs'
             H09027  ='Rating of your personal Dr or nurs'
             H09028  ='Lst yr: Did make any appointments to see spclst'
             H09028_O='Lst yr: Did make any appointments to see spclst'
             H09029  ='Lst yr: How often easy to get appointments with spclsts'
             H09029_O='Lst yr: How often easy to get appointments with spclsts'
             H09030  ='Lst yr: How many spclsts seen'
             H09030_O='Lst yr: How many spclsts seen'
             H09031_O='Rating of specialist seen in lst yr'
             H09031  ='Rating of specialist seen in lst yr'
             H09032  ='Lst yr: Did try to get care, test, or trtmnt through health plan'
             H09032_O='Lst yr: Did try to get care, test, or trtmnt through health plan'
             H09033  ='Lst yr: How often easy to get care, test, or trtmnt'
             H09033_O='Lst yr: How often easy to get care, test, or trtmnt'
             H09034  ='Lst yr: How often written material/Internet provide needed info'
             H09034_O='Lst yr: How often written material/Internet provide needed info'
             H09035    ='Lst yr: Did  look  for  info  from  health  plan  on  cost  of
service/equipment'
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```
          H09035_O='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of
service/equipment'
          H09036  ='Lst yr: How often able to find out cost of service/equipment'
          H09036_O='Lst yr: How often able to find out cost of service/equipment'
          H09037  ='Lst yr: Did look for info from health plan on cost of prescription
meds'
          H09037_O='Lst yr: Did look for info from health plan on cost of prescription
meds'
          H09038  ='Lst yr: How often able to find out cost of prescription meds'
          H09038_O='Lst yr: How often able to find out cost of prescription meds'
          H09039  ="Lst yr: Did try to get info/help from health plan's cstmr service"
          H09039_O="Lst yr: Did try to get info/help from health plan's cstmr service"
          H09040  ='Lst yr: How often did cstmr service give needed info/help'
          H09040_O='Lst yr: How often did cstmr service give needed info/help'
          H09041  ='Lst yr: How often did cstmr service treat with courtesy/respect'
          H09041_O='Lst yr: How often did cstmr service treat with courtesy/respect'
          H09042  ='Lst yr: Did health plan give any forms to fill out'
          H09042_O='Lst yr: Did health plan give any forms to fill out'
          H09043  ='Lst yr: How often were forms easy to fill out'
          H09043_O='Lst yr: How often were forms easy to fill out'
          H09044_O='In lst yr:send in any claims'
          H09044  ='In lst yr:send in any claims'
          H09045  ='Lst yr: How often did health plan handle claims quickly'
          H09045_O='Lst yr: How often did health plan handle claims quickly'
          H09046_O='In lst yr:how oftn handle claims correctly'
          H09046  ='In lst yr:how oftn handle claims correctly'
          H09047  ='Rating of all experience with hlth plan'
          H09047_O='Rating of all experience with hlth plan'
          H09048_O='Blood pressure: when lst reading'
          H09048  ='Blood pressure: when lst reading'
          H09049_O='Blood pressure: know if too high or not'
          H09049  ='Blood pressure: know if too high or not'
          H09050_O='When did you lst have a flu shot'
          H09050  ='When did you lst have a flu shot'
          H09051  ='Smoked at least 100 cigarettes in life'
          H09051_O='Smoked at least 100 cigarettes in life'
          H09052  ='Smoke everyday, some days or not at all'
          H09052_O='Smoke everyday, some days or not at all'
          H09053_O='Lst yr: # visits advised to quit smoking'
          H09053  ='Lst yr: # visits advised to quit smoking'
          H09054  ='# visits recom medic assist quit smoking'
          H09054_O='# visits recom medic assist quit smoking'
          H09055  ='# vist discu meth/strag asst quit smokng'
          H09055_O='# vist discu meth/strag asst quit smokng'
          H09056_O='Are you male or female'
          H09056  ='Are you male or female'
          H09057_O='Lst have a Pap smear test'
          H09057  ='Lst have a Pap smear test'
          H09058_O='Are you under age 40'
          H09058  ='Are you under age 40'
          H09059_O='Lst time: breasts checked mammography'
          H09059  ='Lst time: breasts checked mammography'
          H09060_O='Been pregnant in lst yr or pregnant now'
          H09060  ='Been pregnant in lst yr or pregnant now'
          H09061_O='In what trimester is your pregnancy'
          H09061  ='In what trimester is your pregnancy'
          H09062_O='Trimester first received prenatal care'
          H09062  ='Trimester first received prenatal care'
          H09063_O='In gnrl, how would you rate ovrall hlth'
          H09063  ='In gnrl, how would you rate ovrall hlth'
          H09064_O='Impairment/Hlth prblm limit activities'
          H09064  ='Impairment/Hlth prblm limit activities'
          H09065  ='Lst yr: Have seen doctor 3 or more times for same condition'
          H09065_O='Lst yr: Have seen doctor 3 or more times for same condition'
          H09066  ='Has condition lasted for at least 3 months'
          H09066_O='Has condition lasted for at least 3 months'
          H09067  ='Need to take medicine prescribed by a doctor'
          H09067_O='Need to take medicine prescribed by a doctor'
          H09068  ='Medicine to treat condition that has lasted for at least 3 months'
          H09068_O='Medicine to treat condition that has lasted for at least 3 months'
          H09069FO='Height without shoes (feet)'
          H09069F ='Height without shoes (feet)'
          H09069IO='Height without shoes (inches)'
          H09069I ='Height without shoes (inches)'
```

```
H09070_O='Weight without shoes'
H09070  ='Weight without shoes'
SREDA_O ='Highest grade completed'
SREDA   ='Highest grade completed'
H09071  ='Are you Spanish/Hispanic/Latino'
H09071AO='Not Spanish/Hispanic/Latino'
H09071A ='Not Spanish/Hispanic/Latino'
H09071BO='Mexican, Mexican American, Chicano'
H09071B ='Mexican, Mexican American, Chicano'
H09071CO='Puerto Rican'
H09071C ='Puerto Rican'
H09071DO='Cuban'
H09071D ='Cuban'
H09071EO='Other Spanish, Hispanic, or Latino'
H09071E ='Other Spanish, Hispanic, or Latino'
SRRACEAO='Race: White'
SRRACEA ='Race: White'
SRRACEBO='Race: Black or African American'
SRRACEB ='Race: Black or African American'
SRRACECO='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
SRRACEDO='Race: Asian'
SRRACED ='Race: Asian'
SRRACEEO='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
SRAGE_O ='What is your age now'
SRAGE   ='What is your age now'
H09072  ='Currently Covered Medicare Part A'
H09072_O='Currently Covered Medicare Part A'
H09073  ='Currently Covered Medicare Part B'
H09073_O='Currently Covered Medicare Part B'
H09074  ='Currently Covered Medicare Supplemental'
H09074_O='Currently Covered Medicare Supplemental'

S09B01_O='Self rate of overall mental/emotional health'
S09B01  ='Self rate of overall mental/emotional health'
S09B02_O='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B02  ='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B03_O='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B03  ='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B04_O='Lst yr: Rate of treatmnt/cnslng received'
S09B04  ='Lst yr: Rate of treatmnt/cnslng received'

S09D01_O='Have you used/tried smokeless tobacco products'
S09D01  ='Have you used/tried smokeless tobacco products'
S09D02_O='How often currently use smokeless tobacco products'
S09D02  ='How often currently use smokeless tobacco products'
S09D03_O='Do you use tobacco products other than cigarettes'
S09D03  ='Do you use tobacco products other than cigarettes'
S09D04_O='Lst yr: How often advised by doctor to stop'
S09D04  ='Lst yr: How often advised by doctor to stop'
S09D05_O='In a week: How much dip/chewing tobacco/snuff/snus'
S09D05  ='In a week: How much dip/chewing tobacco/snuff/snus'
S09N11_O='Prefer civilian or military facilities for hlth care'
S09N11  ='Prefer civilian or military facilities for hlth care'


S09Q01  ='Had blood stool test with home kit'
S09Q01_O='Had blood stool test with home kit'
S09Q02  ='Time since last bld stl tst /w home kit'
S09Q02_O='Time since last bld stl tst /w home kit'
S09Q03  ='Had sigmoidoscopy or colonoscopy exam'
S09Q03_O='Had sigmoidoscopy or colonoscopy exam'
S09Q04  ='Time since last sigmoidoscopy'
S09Q04_O='Time since last sigmoidoscopy'
S09Q05  ='Time since last colonoscopy'
S09Q05_O='Time since last colonoscopy'


N1  = "Coding Scheme Note 1"
N2  = "Coding Scheme Note 2"
N3  = "Coding Scheme Note 3"
N4  = "Coding Scheme Note 4"
```

```
N5   = "Coding Scheme Note 5"
N6   = "Coding Scheme Note 6"
N7   = "Coding Scheme Note 7"
N8   = "Coding Scheme Note 8"
N9   = "Coding Scheme Note 9"
N10  = "Coding Scheme Note 10"
N10A1= "Coding Scheme Note 10A1"
N11  = "Coding Scheme Note 11"
N12  = "Coding Scheme Note 12"
N13  = "Coding Scheme Note 13"
N14  = "Coding Scheme Note 14"
N15  = "Coding Scheme Note 15"
N16  = "Coding Scheme Note 16"
N16A1= "Coding Scheme Note 16A1"
N16A2= "Coding Scheme Note 16A2"
N17  = "Coding Scheme Note 17"
N18  = "Coding Scheme Note 18"
N18A1= "Coding Scheme Note 18A1"
N19A = "Coding Scheme Note 19A"
N19B = "Coding Scheme Note 19B"
N20  = "Coding Scheme Note 20"
N21  = "Coding Scheme Note 21"
N22  = "Coding Scheme Note 22"
N23  = "Coding Scheme Note 23"
N24  = "Coding Scheme Note 24"



MISS_1 = "Count of: Violates Skip Pattern"
MISS_4 = "Count of: Incomplete grid error"
MISS_5 = "Count of: Scalable reponse of Don't know"
MISS_6 = "Count of: Not applicable - valid skip"
MISS_7 = "Count of: Out-of-range error"
MISS_8 = "Count of: Multiple response error"
MISS_9 = "Count of: No response - invalid skip"
MISS_TOT = "Total number of missing responses"
XSEXA = "Male or Female  - R"
;
```

```
*****************************************************************************;
*  Program:  Cschm09q.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.SD2 - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  CSCHM09Q.SD2 - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*            10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*            5/09/2002 - Change to logic in TFL supplement
*            3/17/2003 - Updated Variables names for Q1 2003
*            4/11/2003 - Added note 19a to accomodate Q1 2003 error where
*                        an option on most of the questionnaires was omitted for
*                        H03062
*            3/28/2008 - Updated Variable names for Q2 FY 2008
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschm09q.fmt
*
*****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN     v9 "..\..\DATA\AFINAL";
LIBNAME OUT    v9 "..\..\DATA\AFINAL";

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM09q;
%LET PERIOD=April 2008 to March, 2009;

/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H09001  H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
 H09002I H09002J H09002K H09002M H09002R H09002L H09003  H09004  H09005  H09006
 H09007  H09008  H09009  H09010  H09011  H09012
 S09W01  S09W02  S09W03  S09W04  S09W05  S09W06  S09W07
 H09013  H09014  H09015  H09016  H09017  H09018  H09019  H09020  H09021  H09022
 H09023  H09024  H09025  H09026  H09027
 S09009  S09010
 H09028  H09029  H09030  H09031
 S09B01  S09B02  S09B03  S09B04
 H09032  H09033  H09034B H09034  H09035  H09036  H09037  H09038  H09039  H09040
 H09041  H09042  H09043  H09044  H09045  H09046  H09047
 S09K12  S09K13  S09K14  S09K15  S09K16  S09K01  S09K02  S09K03  S09K04  S09K05
 H09048  H09049  H09050  H09051  H09052  H09053  H09054  H09055  H09056  H09057
 H09058  H09059  H09060  H09061  H09062  H09063  H09064  H09065  H09066  H09067
 H09068
 S09B22A S09B22B S09B22C
 S09B23  S09B24  S09B25  S09B26
 H09069F H09069I H09070
 SREDA   H09071A H09071B H09071C H09071D H09071E
 SRRACEA SRRACEB SRRACEC SRRACED SRRACEE SRAGE
 H09072  H09073  H09074
 S09N11  S09011  S09012  S09013  S09014
 ;

/*  _O variables are the original values from the survey response */

%Let varlist2 =
```

```
     H09001_O H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
     H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO H09003_O H09004_O H09005_O H09006_O
     H09007_O H09008_O H09009_O H09010_O H09011_O H09012_O
     S09W01_O S09W02_O S09W03_O S09W04_O S09W05_O S09W06_O S09W07_O
     H09013_O H09014_O H09015_O H09016_O H09017_O H09018_O H09019_O H09020_O H09021_O H09022_O
     H09023_O H09024_O H09025_O H09026_O H09027_O
     S09009_O S09010_O
     H09028_O H09029_O H09030_O H09031_O
     S09B01_O S09B02_O S09B03_O S09B04_O
     H09032_O H09033_O H09034BO H09034_O H09035_O H09036_O H09037_O H09038_O H09039_O H09040_O
     H09041_O H09042_O H09043_O H09044_O H09045_O H09046_O H09047_O
     S09K12_O S09K13_O S09K14_O S09K15_O S09K16_O S09K01_O S09K02_O S09K03_O S09K04_O S09K05_O
     H09048_O H09049_O H09050_O H09051_O H09052_O H09053_O H09054_O H09055_O H09056_O H09057_O
     H09058_O H09059_O H09060_O H09061_O H09062_O H09063_O H09064_O H09065_O H09066_O H09067_O
     H09068_O
     S09B22AO S09B22BO S09B22CO
     S09B23_O S09B24_O S09B25_O S09B26_O
     H09069FO H09069IO H09070_O
     SREDA_O  H09071AO H09071BO H09071CO H09071DO H09071EO
     SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO SRAGE_O
     H09072_O H09073_O H09074_O
     S09N11_O S09011_O S09012_O S09013_O S09014_O
     ;

  TITLE  "DoD 2009 Survey Form A -- &PERIOD";
  TITLE2 "Apply Coding Scheme";




DATA MERGESYN;

   SET IN.MERGESYN(RENAME=(H09070  = H09070CH
                           ));

*********************************************************************;
* Code added by Jacqueline Agufa 09/15/2004 to fix name of race variable;
*********************************************************************;

   RENAME SRACEA = SRRACEA;
   RENAME SRACEB = SRRACEB;
   RENAME SRACEC = SRRACEC;
   RENAME SRACED = SRRACED;
   RENAME SRACEE = SRRACEE;


   **** update variables with both filled items and check boxes
   **** Per Eric Schone;


   IF H09069F LT 1     THEN H09069F=H09069FN;
   IF H09069I IN (-9,.) THEN H09069I=H09069IN;


   H09070= COMPRESS(H09070CH,' ')*1;

   DROP H09070CH;


   IF H09070=0   AND H09070N=-9     THEN H09070 =H09070N;
   IF H09070<100 AND H09070N NE -9  THEN H09070 =H09070N;


   *** Correct odd height and weights Per Eric Schone;

   IF H09069F NOT IN (-9,.) THEN DO;
     IF H09069F < 2 OR
        H09069F > 8
     THEN H09069F= -7;
   END;

   IF 0 <= H09070 < 40 OR
     H09070 > 500
   THEN H09070= -7;
```

```
   /* MER 06/29/09 Recode "No Answer" value of 3 for supplemental */
   /* question S09B24 in Q3FY2009.                               */

   IF S09B24 = 3 THEN S09B24 = -9.;


RUN;


DATA OUT.CSCHM09q;

   LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
   INFORMAT &VARLIST2. 4.;
   %INCLUDE "CSCHM09q.FMT";


/* label and format statements for original variables */


   SET MERGESYN;



****************************************************************;
**** Recodes for invalid responses:***************************;
****************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 2009 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

   SEX=PNSEXCD;
   AGE=INPUT(DAGEQY,8.);

   ARRAY RECODE(*) &VARLIST1;
   ARRAY   ORIG(*) &VARLIST2;

   DO I = 1 to DIM(ORIG);
        ORIG(I) = RECODE(I);
        IF ORIG(I) < 0 THEN DO;
                IF ORIG(I)= -9 THEN RECODE(I)=.;
           ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
           ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
           ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
           ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
           ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
           ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
           ELSE RECODE(I)=RECODE(I);
        END;
   END;
   DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

   ARRAY   MARKED(*)
           H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
           H09002I H09002J H09002K H09002M H09002R H09002L

           S09B22A S09B22B S09B22C

           H09071A H09071B H09071C H09071D H09071E
           SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
                ;
```

```
   ARRAY INFORMAT(*)
           H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
           H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO

           S09B22AO S09B22BO S09B22CO

           H09071AO H09071BO H09071CO H09071DO H09071EO
           SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO

               ;


   DO J=1 TO DIM(INFORMAT);
      IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
      ELSE MARKED(J)=2;
   END;
   DROP J;

   FORMAT
           H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
           H09002I H09002J H09002K H09002M H09002R H09002L

           S09B22A S09B22B S09B22C

           H09071A H09071B H09071C H09071D H09071E
           SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
          MARKED.;


**********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;

/** Note 1 -- H09003, H09004 health plan usage  **/

  IF H09003 > 0 OR H09003 =.D THEN N1=1;
  ELSE IF H09003=.N  THEN DO;
     IF H09004 NOT=. THEN DO;
        N1=2;
        H09004=.C;
     END;
     ELSE DO;
        N1=3;
        H09004=.N;
     END;
  END;
  ELSE IF H09003=.   THEN N1=4;


/** Note 2 -- H09006,H09007,H09008:  illness or injury **/

  ARRAY NOTE2 H09007 H09008;
  N2MARK=0;
  N2NMISS=0;
  N2NN=0;

  DO OVER NOTE2;
     IF NOTE2 NE . THEN N2NMISS+1;
     IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
     IF NOTE2 EQ .N THEN N2NN+1;
  END;


  IF H09006=1 AND N2NMISS=0 THEN DO;
      N2=1;
  END;
  ELSE IF H09006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
     H09006=2;
     N2=2;
     DO OVER NOTE2;
        IF NOTE2=. THEN NOTE2=.N;
        ELSE NOTE2=.C;
```

```
      END;
   END;
   ELSE IF H09006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
      DO OVER NOTE2;
         IF NOTE2=.N THEN NOTE2=.;
      END;
      N2=3;
   END;
   ELSE IF H09006=1 AND N2MARK>0 THEN DO;
      N2=4;
   END;
   ELSE IF H09006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
      H09007=.C;
      H09008=.C;
      N2=5;
   END;
   ELSE IF H09006 IN (2,.) AND N2MARK>0 THEN DO;
      H09006=1;
      N2=6;
      DO OVER NOTE2;
         IF NOTE2=.N THEN NOTE2=.;
      END;
   END;
   ELSE IF H09006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
      N2=7;
      DO OVER NOTE2;
         IF NOTE2=. THEN NOTE2=.N;
         ELSE NOTE2=.C;
      END;
   END;
   ELSE IF H09006=.  AND N2NMISS=0 THEN N2=8;


   DROP N2NMISS N2MARK N2NN;


/** Note 3 -- H09009,H09010,H09011:  regular or routine healthcare **/

   ARRAY Note3 H09010 H09011;
   N3MARK=0;
   N3NMISS=0;
   N3NN=0;

   DO OVER Note3;
      IF Note3 NE . THEN N3NMISS+1;
      IF Note3 NOT IN (.N,.) THEN N3MARK+1;
      IF Note3 EQ .N THEN N3NN+1;
   END;

   IF H09009=1 AND N3NMISS=0 THEN DO;
       N3=1;
   END;
   ELSE IF H09009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
      H09009=2;
      N3=2;
      DO OVER Note3;
         IF Note3=. THEN Note3=.N;
         ELSE Note3=.C;
      END;
   END;
   ELSE IF H09009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
      DO OVER Note3;
         IF Note3=.N THEN Note3=.;
      END;
      N3=3;
   END;
   ELSE IF H09009=1 AND N3MARK>0 THEN DO;
      N3=4;
   END;
   ELSE IF H09009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
      H09010=.C;
      H09011=.C;
      N3=5;
   END;
```

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```
   ELSE IF H09009 IN (2,.) AND N3MARK>0 THEN DO;
      H09009=1;
      N3=6;
      DO OVER Note3;
         IF Note3=.N THEN Note3=.;
      END;
   END;
   ELSE IF H09009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
      N3=7;
      DO OVER Note3;
         IF Note3=. THEN Note3=.N;
         ELSE Note3=.C;
      END;
   END;
   ELSE IF H09009=.  AND N3NMISS=0 THEN N3=8;


   DROP N3NMISS N3MARK N3NN;


/** Note 3A1 -- H09012, S09W01-S09W07: emergency room **/

   ARRAY NOTE3A1  S09W02-S09W07;

   N3A1MARK=0;

   DO OVER NOTE3A1;
      IF NOTE3A1 NOT IN (.,.D) THEN N3A1MARK+1;
   END;

   IF H09012=1 THEN DO;
      IF S09W01 IN (1,2) THEN DO;
         N3A1=1;
         H09012=.;
      END;
      ELSE IF S09W01 IN (.,.D) THEN DO;
         IF N3A1MARK>0 THEN DO;
            N3A1=2;
            H09012=.;
         END;
         ELSE DO;
            N3A1=3;
            IF S09W01=. THEN S09W01=.N;
            ELSE S09W01=.C;
            DO OVER NOTE3A1;
               IF NOTE3A1=. THEN NOTE3A1=.N;
               ELSE NOTE3A1=.C;
            END;
         END;
      END;
      ELSE IF S09W01=.N THEN DO;
         N3A1=4;
         S09W01=.C;
         DO OVER NOTE3A1;
            IF NOTE3A1=. THEN NOTE3A1=.N;
            ELSE NOTE3A1=.C;
         END;
      END;
   END;
   ELSE IF H09012 IN (2,3,4,5,6,7,.) THEN DO;
      IF S09W01=.N THEN DO;
         IF N3A1MARK>0 THEN DO;
            N3A1=5;
            S09W01=.;
         END;
         ELSE DO;
            N3A1=6;
            H09012=1;
            S09W01=.C;
            DO OVER NOTE3A1;
               IF NOTE3A1=. THEN NOTE3A1=.N;
               ELSE NOTE3A1=.C;
            END;
         END;
```

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```
      END;
      ELSE IF S09W01 IN (1,2,.D,.) THEN N3A1=7;
   END;

   DROP N3A1MARK;


/** Note 3A2 -- S09W02, S09W03: emergency room **/

   IF S09W02 IN (.N,.C) AND S09W03 IN (.N,.C) THEN N3A2=1;
   ELSE IF S09W02=1 THEN N3A2=2;
   ELSE IF S09W02 IN (2,.D,.) AND S09W03 IN (1,2) THEN DO;
      N3A2=3;
      S09W02=1;
   END;
   ELSE IF S09W02 IN (2,.D) AND S09W03 IN (.D,.) THEN DO;
      N3A2=4;
      IF S09W03=. THEN S09W03=.N;
      ELSE S09W03=.C;
   END;
   ELSE IF S09W02=. AND S09W03 IN (.D,.) THEN N3A2=5;


/** Note 3A3 -- S09W03, S09W04-S09W07: emergency room **/

   ARRAY NOTE3A3  S09W04-S09W07;

   IF S09W03 IN (.N,.C) THEN N3A3=1;
   ELSE IF S09W03=1 THEN DO;
      N3A3=2;
      DO OVER NOTE3A3;
         IF NOTE3A3=. THEN NOTE3A3=.N;
         ELSE NOTE3A3=.C;
      END;
   END;
   ELSE IF S09W03 IN (2,.D,.) THEN N3A3=3;


/** Note 3A4 -- S09W05, S09W06: emergency room **/

   IF S09W05 IN (.N,.C) AND S09W06 IN (.N,.C) THEN N3A4=1;
   ELSE IF S09W05=1 THEN N3A4=2;
   ELSE IF S09W05 IN (2,.D,.) AND S09W06 IN (1,2,3,4) THEN DO;
      N3A4=3;
      S09W05=1;
   END;
   ELSE IF S09W05 IN (2,.D) AND S09W06 IN (.D,.) THEN DO;
      N3A4=4;
      IF S09W06=. THEN S09W06=.N;
      ELSE S09W06=.C;
   END;
   ELSE IF S09W05=. AND S09W06 IN (.D,.) THEN N3A4=5;


/** Note 4 -- H09013, H09014-H09018: doctor's office or clinic **/

   ARRAY NOTE4  H09014-H09018;

   N4MARK=0;
   N4NMISS=0;

   DO OVER NOTE4;
      IF NOTE4 NE . THEN N4NMISS+1;
      IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
   END;


   IF H09013=1 THEN DO;
      N4=1;
      DO OVER NOTE4;
         IF NOTE4=. THEN NOTE4=.N;
         ELSE NOTE4=.C;
      END;
   END;
```

```
   ELSE IF H09013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
      H09013=1;
      N4=2;
      DO OVER NOTE4;
          IF NOTE4=. THEN NOTE4=.N;
          ELSE NOTE4=.C;
      END;
   END;
   ELSE IF H09013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
      DO OVER NOTE4;
          IF NOTE4=.N THEN NOTE4=.;
      END;
      N4=3;
   END;
   ELSE IF H09013=.  AND N4NMISS=0 THEN N4=4;
   ELSE IF H09013 IN (.) AND N4MARK>0 THEN DO;
      N4=5;
      DO OVER NOTE4;
          IF NOTE4=.N THEN NOTE4=.;
      END;
   END;

   DROP N4NMISS N4MARK;


/** Note 5 -- H09015, H09016-H09017: doctor's office or clinic- treatment **/

  IF H09015 IN (.N,.C) THEN N5=1;
  ELSE IF H09015= 1  THEN N5=2;
  ELSE IF H09015 IN (2,.) AND H09016 IN (1,2) THEN  DO;
      N5=3;
      H09015=1;
  END;
  ELSE IF H09015 IN (2,.) AND (H09016 IN (3,4,.) AND H09017 IN (1,2)) THEN  DO;
      N5=4;
      H09015=1;
  END;
  ELSE IF H09015 IN (2) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
      N5=5;
      IF H09016 = . THEN H09016 = .N;
      ELSE H09016 = .C;
      IF H09017 = . THEN H09017 = .N;
      ELSE H09017 = .C;
  END;
  ELSE IF H09015 IN (.) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
      N5=6;
  END;



/** Note 6 -- H09019, H09020-H09027, S09009: personal doctor **/
/* MER 07/01/09 */

   ARRAY NOTE6  H09021-H09024;

   N6MARK=0;

   DO OVER NOTE6;
      IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
   END;


   IF H09019 = 1  THEN DO;
      N6=1;
      IF H09027=.N THEN H09027=.;
   END;
   ELSE IF H09019 in (2,.) AND H09027 in (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
      N6=2;
      H09019=1;
   END;
   ELSE IF H09019 in (2,.) AND N6MARK>0 AND H09027 = . THEN DO;
      N6=3;
      H09019=1;
   END;
```

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```
   ELSE IF H09019 = 2 AND N6MARK>0 AND H09027 = .N THEN DO;
      N6=4;
      IF H09020=. THEN H09020=.N;
      ELSE H09020=.C;
      DO OVER NOTE6;
         IF NOTE6=. THEN NOTE6=.N;
         ELSE NOTE6=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
      IF S09009=. THEN S09009=.N;
      ELSE S09009=.C;
      H09027=.C;
   END;
   ELSE IF H09019 = 2 AND N6MARK=0 AND H09027 in (.N,.) THEN DO;
      N6=5;
      IF H09020=. THEN H09020=.N;
      ELSE H09020=.C;
      DO OVER NOTE6;
         IF NOTE6=. THEN NOTE6=.N;
         ELSE NOTE6=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
      IF S09009=. THEN S09009=.N;
      ELSE S09009=.C;
      IF H09027=. THEN H09027=.N;
      ELSE H09027=.C;
   END;
   ELSE IF H09019 = . AND H09027 = .N THEN DO; /* MER 07/31/09 combined rows 6 and 7 */
      N6=6;
      H09019=2;
      IF H09020=. THEN H09020=.N;
      ELSE H09020=.C;
      DO OVER NOTE6;
         IF NOTE6=. THEN NOTE6=.N;
         ELSE NOTE6=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
      IF S09009=. THEN S09009=.N;
      ELSE S09009=.C;
      H09027=.C;
   END;
   ELSE IF H09019 = . AND N6MARK=0 AND H09027 = . THEN N6=7;

   DROP N6MARK;


/** Note 7 -- H09020, H09021-H09026: personal doctor visit **/

   ARRAY NOTE7  H09021-H09024;

   N7MARK=0;
   N7NMISS=0;

   DO OVER NOTE7;
      IF NOTE7 NE . THEN N7NMISS+1;
      IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
   END;


   IF H09020 IN (.N, .C) THEN N7=1;
   ELSE IF H09020=0 THEN DO;
      N7=2;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
```

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```
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
   END;
   ELSE IF H09020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
      H09020=0;
      N7=3;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
   END;
   ELSE IF H09020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
      DO OVER NOTE7;
         IF NOTE7=.N THEN NOTE7=.;
      END;
      N7=4;
   END;

   DROP N7NMISS N7MARK;



/** Note 8 -- H09025, H09026:  care from another doctor or healthcare provider **/

   IF H09025 IN (.N, .C) THEN N8=1;
   ELSE IF H09025=1 THEN N8=2;
   ELSE IF H09025 IN (2,.) AND H09026 IN (1,2,3,4) THEN DO;
      H09025=1;
      N8=3;
   END;
   ELSE IF H09025=2 AND H09026 IN (.) THEN DO;
      H09026=.N;
      N8=4;
   END;
   ELSE IF H09025=.  AND H09026=.  THEN N8=5;


/** Note 8A1 -- S09009, S09010:  problem getting new personal doctor or nurse **/

   IF S09009 IN (.N,.C) THEN N8A1=1; /* MER 07/31/09 gave each S09009 value its own row for
analysis purposes */
   ELSE IF S09009=1 THEN DO;
      N8A1=2;
      IF S09010=. THEN S09010=.N;
      ELSE S09010=.C;
   END;
   ELSE IF S09009=2 THEN N8A1=3;
   ELSE IF S09009=. THEN N8A1=4;  /* MER 07/31/09 eliminated backward coding for missing S09009
*/


/** Note 9 -- H09028, H09029-H09031:  needed to see a specialist in last 12 months **/

   ARRAY NOTE9  H09029 H09031;

   N9MARK=0;
   N9NMISS=0;

   DO OVER NOTE9;
      IF NOTE9 NE . THEN N9NMISS+1;
      IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
   END;

   IF H09030 NE . THEN N9NMISS+1;
   IF H09030 NOT IN (.,0) THEN N9MARK+1;
```

```
      IF H09028 IN (1)  THEN DO;
         N9=1;
         IF H09029=.N THEN H09029=.;
      END;
      ELSE IF H09028 in (2,.) AND N9MARK>0 THEN DO;
         N9=2;
         H09028=1;
         IF H09029=.N THEN H09029=.;
      END;
      ELSE IF H09028 in (2) THEN DO;
         N9=3;
         DO OVER NOTE9;
            IF NOTE9=. THEN NOTE9=.N;
            ELSE NOTE9=.C;
         END;
         IF H09030=. THEN H09030=.N;
         ELSE H09030=.C;
      END;
      ELSE IF H09028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
         N9=4;
         H09028=2;
         DO OVER NOTE9;
            IF NOTE9=. THEN NOTE9=.N;
            ELSE NOTE9=.C;
         END;
         IF H09030=. THEN H09030=.N;
         ELSE H09030=.C;
      END;
      ELSE IF H09028=.  AND N9NMISS=0 THEN N9=5;

      DROP N9NMISS N9MARK;


  /** Note 10 -- H09030, H09031: saw a specialist in last 12 months **/

      IF H09030 IN (.N,.C) THEN N10=1;
      ELSE IF H09030 IN (1,2,3,4,5) AND H09031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
      ELSE IF H09030 IN (1,2,3,4,5,.) AND H09031=.N THEN DO;
         H09030=0;
         H09031=.C;
         N10=3;
      END;
      ELSE IF H09030 = 0 THEN DO;
         IF H09031=. THEN H09031=.N;
         ELSE H09031=.C;
         N10=4;
      END;
      ELSE IF H09030=. THEN N10=5;


  /** Note 10A1 -- S09B02, S09B03-S09B04: overall mental health **/

      ARRAY NOTE10A1  S09B03-S09B04;

      N10A1MARK=0;
      N10A1NMISS=0;

      DO OVER NOTE10A1;
         IF NOTE10A1 NE . THEN N10A1NMISS+1;
         IF NOTE10A1 NOT IN  (., .N) THEN N10A1MARK+1;
      END;

      IF S09B02 = 1 THEN DO;
         DO OVER NOTE10A1;
            IF NOTE10A1=.N THEN NOTE10A1=.;
         END;
         N10A1=1;
      END;
      ELSE IF S09B02 IN (2,.) AND (N10A1MARK>0) THEN DO;
         N10A1=2;
         S09B02=1;
      END;
      ELSE IF S09B02=2  AND (N10A1NMISS=0 OR (N10A1NMISS > 0 AND N10A1MARK = 0)) THEN DO;
         N10A1=3;
```

```
      DO OVER NOTE10A1;
          IF NOTE10A1 = . THEN NOTE10A1=.N;
          ELSE NOTE10A1 = .C;
      END;
  END;
  ELSE IF S09B02 IN (.) AND (N10A1NMISS > 0 AND N10A1MARK = 0) THEN DO;
      N10A1=4;
      S09B02=2;
      DO OVER NOTE10A1;
          IF NOTE10A1 = . THEN NOTE10A1=.N;
          ELSE NOTE10A1 = .C;
      END;
  END;
  ELSE IF S09B02 IN (.) AND N10A1NMISS=0 THEN N10A1=5;

  DROP N10A1NMISS N10A1MARK;


/** Note 11 -- H09032, H09033:  tried to get care, tests, or treatment from health plan**/

  IF H09032=1 AND H09033 IN (1,2,3,4,.) THEN N11=1;
  ELSE IF H09032 IN (1,.) AND H09033=.N THEN DO;
      H09032=2;
      H09033=.C;
      N11=2;
  END;
  ELSE IF H09032 IN (2,.) AND H09033 IN (1,2,3,4) THEN DO;
      H09032=1;
      N11=3;
  END;
  ELSE IF H09032=2 AND H09033 IN (.,.N) THEN DO;
      IF H09033=. THEN H09033=.N;
      ELSE H09033=.C;
      N11=4;
  END;
  ELSE IF H09032=.  AND H09033=.  THEN N11=5;


/** Note 11B -- H09034B, H09034:  look for info in written materials or on internet**/
  IF H09034B=1 AND H09034 IN (1,2,3,4,.) THEN N11B=1;
  ELSE IF H09034B=1 AND H09034=.N THEN DO;
      N11B=2;
      H09034=.;
  END;
  ELSE IF H09034B IN (2,.) AND H09034 IN (1,2,3,4) THEN DO;
      N11B=3;
      H09034B=1;
  END;
  ELSE IF H09034B=2 AND H09034 IN (.N,.) THEN DO;
      N11B=4;
      IF H09034=. THEN H09034=.N;
      ELSE H09034=.C;
  END;
  ELSE IF H09034B=. AND H09034=.N THEN DO;
      N11B=5;
      H09034B=2;
      H09034=.C;
  END;
  ELSE IF H09034B=. AND H09034=. THEN N11B=6;


/** Note 12 -- H09035, H09036:  tried to get cost of service/equipment from health plan**/

  IF H09035=1 AND H09036 IN (1,2,3,4,.) THEN N12=1;
  ELSE IF H09035 IN (1,.) AND H09036=.N THEN DO;
      H09035=2;
      H09036=.C;
      N12=2;
  END;
  ELSE IF H09035 IN (2,.) AND H09036 IN (1,2,3,4) THEN DO;
      H09035=1;
      N12=3;
  END;
  ELSE IF H09035=2 AND H09036 IN (.,.N) THEN DO;
```

```
      IF H09036=. THEN H09036=.N;
      ELSE H09036=.C;
      N12=4;
   END;
   ELSE IF H09035=.  AND H09036=.  THEN N12=5;


/** Note 13 -- H09037, H09038:  tried to get cost of prescription meds from health plan**/

   IF H09037=1 AND H09038 IN (1,2,3,4,.) THEN N13=1;
   ELSE IF H09037 IN (1,.) AND H09038=.N THEN DO;
      H09037=2;
      H09038=.C;
      N13=2;
   END;
   ELSE IF H09037 IN (2,.) AND H09038 IN (1,2,3,4) THEN DO;
      H09037=1;
      N13=3;
   END;
   ELSE IF H09037=2 AND H09038 IN (.,.N) THEN DO;
      IF H09038=. THEN H09038=.N;
      ELSE H09038=.C;
      N13=4;
   END;
   ELSE IF H09037=.  AND H09038=.  THEN N13=5;


/** Note 14 -- H09039, H09040-H09041: tried to use health plan's customer service  **/

   ARRAY NOTE14  H09040-H09041;

   N14MARK=0;
   N14NMISS=0;

   DO OVER NOTE14;
      IF NOTE14 NE . THEN N14NMISS+1;
      IF NOTE14 NOT IN  (., .N) THEN N14MARK+1;
   END;

   IF H09039 = 1 AND (N14MARK>0 OR N14NMISS=0) THEN DO;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
      N14=1;
   END;
   ELSE IF H09039 IN (1,.) AND (N14NMISS > 0 AND N14MARK = 0) THEN DO;
      N14=2;
      H09039=2;
      DO OVER NOTE14;
         IF NOTE14 = . THEN NOTE14=.N;
         ELSE NOTE14 = .C;
      END;
   END;
   ELSE IF H09039 IN (2,.) AND (N14MARK>0) THEN DO;
      N14=3;
      H09039=1;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
   END;
   ELSE IF H09039=2  AND (N14NMISS=0 OR (N14NMISS > 0 AND N14MARK = 0)) THEN DO;
      N14=4;
      DO OVER NOTE14;
         IF NOTE14 = . THEN NOTE14=.N;
         ELSE NOTE14 = .C;
      END;
   END;
   ELSE IF H09039 IN (.) AND N14NMISS=0 THEN N14=5;

   DROP N14NMISS N14MARK;


/** Note 15 -- H09042, H09043:  received forms to fill out from health plan **/
```

```
   IF H09042=1 AND H09043 IN (1,2,3,4,.) THEN N15=1;
   ELSE IF H09042 IN (1,.) AND H09043=.N THEN DO;
      H09042=2;
      H09043=.C;
      N15=2;
   END;
   ELSE IF H09042 IN (2,.) AND H09043 IN (1,2,3,4) THEN DO;
      H09042=1;
      N15=3;
   END;
   ELSE IF H09042=2 AND H09043 IN (.,.N) THEN DO;
      IF H09043=. THEN H09043=.N;
      ELSE H09043=.C;
      N15=4;
   END;
   ELSE IF H09042=.  AND H09043=.  THEN N15=5;


/** Note 16 -- H09044, H09045-H09046: claims to health plan **/

   ARRAY NOTE16 H09045-H09046;
   N16MARK=0;
   N16NMISS=0;
   N16NDK=0;

   DO OVER NOTE16;
      IF NOTE16 NE . THEN N16NMISS+1;
      IF NOTE16 NOT IN (.N,.D,.) THEN N16MARK+1;
      IF NOTE16 NOT IN (.,.D) THEN N16NDK+1;
   END;

   IF H09044=1 AND
      (N16NMISS=0 OR N16MARK>0 OR N16NDK=0)
   THEN DO;
      N16=1;
      DO OVER NOTE16;
         IF NOTE16=.N THEN NOTE16=.;
      END;
   END;
   ELSE IF H09044 IN (1,.,.D) AND N16NMISS>0 AND N16MARK=0 AND N16NDK>0 THEN DO;
      N16=2;
      H09044=2;
      DO OVER NOTE16;
         IF NOTE16=. THEN NOTE16=.N;
         ELSE NOTE16=.C;
      END;
   END;
   ELSE IF H09044 IN (2,.,.D) AND N16MARK>0
        THEN DO;
      H09044=1;
      N16=3;
      DO OVER NOTE16;
         IF NOTE16=.N THEN NOTE16=.;
      END;
   END;
   ELSE IF H09044 IN (2) AND N16MARK=0 THEN DO;
      N16=4;
      DO OVER NOTE16;
         IF NOTE16=. THEN NOTE16=.N;
         ELSE NOTE16=.C;
      END;
   END;
   ELSE IF H09044 IN (.D) AND (N16NMISS=0 OR N16NDK=0) THEN DO;
      N16=5;
      DO OVER NOTE16;
         IF NOTE16=. THEN NOTE16=.N;
         ELSE NOTE16=.C;
      END;
   END;
   ELSE IF H09044 IN (.) AND (N16NMISS=0 OR N16NDK=0) THEN N16=6;

   DROP N16NMISS N16MARK N16NDK;
```

```
/** Note 17 -- smoking:  H09051, H09052-H09055  **/

  ARRAY NOTE17 H09053 H09054 H09055;

  IF H09051=1 and H09052 IN (3,4) THEN DO;  /* still smoke */
     N17=1;
  END;
  ELSE IF H09051=1 AND H09052 IN (2,.D) THEN DO;  /* quit */
     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;
     N17=2;
  END;
  ELSE IF H09051=1 AND H09052 = . THEN DO;  /* don't know */
     N17=3;
  END;
  ELSE IF H09051 IN (2,.D,.) AND H09052 IN (3,4) THEN DO;
     H09051=1;

     N17=4;
  END;
  ELSE IF H09051 IN (2,.D) AND H09052 IN (2,.D, .) THEN DO; /*never smoke*/
     /* JMA March 25 2004,
        Updated because H09054 and H09055 have been added to the
        skip pattern */

     IF H09052 NE . THEN H09052 =.C;
     ELSE H09052=.N;

     DO OVER NOTE17;
        IF NOTE17=. THEN NOTE17=.N;
        ELSE NOTE17=.C;
     END;

     N17=5;
  END;
  ELSE IF H09051 IN ( .) THEN DO;
     IF (H09052 IN (2,.) AND
        (H09053 IN (2,3,4,5) OR H09054 IN (2,3,4,5) OR H09055 IN (2,3,4,5)))
     THEN DO;
        /* JMA March 25 2004,
           Updated because H09054 and H09055 have been added to the
           skip pattern */

        H09051=1;
        N17=6;
     END;
     ELSE IF H09052 IN (2,.) THEN DO; /*MRE/blank*/
           N17=7;

     END;
     ELSE IF H09052=.D THEN DO; /*MRE/blank*/
        /* JMA March 25 2004,
           Updated because H09054 and H09055 have been added to the
           skip pattern */

         DO OVER NOTE17;
           IF NOTE17=. THEN NOTE17=.N;
           ELSE NOTE17=.C;
        END;

        N17=8;
     END;
  END;


/** Note 18 -- advice from doctor on smoking:  H09053-H09055  **/

   IF H09053 EQ .N THEN DO;               /* jma Sep 19 2006 */
      IF H09054 IN (.,.N) THEN H09054 = .N;
      ELSE H09054=.C;
      IF H09055 IN (.,.N) THEN H09055 = .N;
      ELSE H09055=.C;
```

```
      N18=1;
   END;
   ELSE IF H09053 EQ .C THEN DO;                    /* jma fEB 19 2008 */
      N18=2;
   END;
   ELSE IF H09053 EQ 1 AND (H09054 =.N AND H09055=.N) THEN DO; /* jma May 10 2007 */
        H09054 = 1;
        H09055 = 1;
        N18=3;
   END;
   ELSE IF H09053 EQ 1 AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
        H09054 = 1;
        N18=4;
   END;
   ELSE IF H09053 EQ 1 AND (H09055=.N) THEN DO; /* jma May 10 2007 */
        H09055 = 1;
        N18=5;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N AND H09055= .N) THEN DO; /* jma May 10 2007 */
        H09054 = .;
        H09055 = .;
        N18=6;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
        H09054 = .;
        N18=7;
   END;
   ELSE IF H09053 IN (2,3,4,5,.) AND (H09055= .N) THEN DO; /* jma May 10 2007 */
        H09055 = .;
        N18=8;
   END;
   ELSE IF H09053 GE 1 AND (H09054 > H09053 AND H09055 > H09053) THEN DO; /* jma May 10 2007 */
        H09054 = H09053;
        H09055 = H09053;
        N18=9;
   END;
   ELSE IF H09053 GE 1 AND (H09054 > H09053) THEN DO; /* jma May 10 2007 */
        H09054 = H09053;
        N18=10;
   END;
   ELSE IF H09053 GE 1 AND (H09055 > H09053) THEN DO; /* jma May 10 2007 */
        H09055 = H09053;
        N18=11;
   END;
   ELSE  IF H09053  GE 1 AND ((H09054 <= H09053 or H09054 = . ) AND (H09055 <= H09053 or
H09055=.))
   THEN DO; /* jma Feb 19 2007 */
        N18=12;
   END;
   ELSE IF (H09053=. AND H09054 IN (1,2,3,4,5,.) AND H09055 IN (1,2,3,4,5,.))
   THEN DO; /* jma Feb 19 2007 */
        N18=13;
   END;


/** Note 19 - gender H09056, SEX, H09057--H09062,
             XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


  ARRAY fmaleval H09057 H09058 H09059 H09060 H09061 H09062
                  ;

  cntfmale=0;
  DO OVER fmaleval;              /* mammogram/pap smear/PREGNANT*/
     IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;

  IF cntfmale>0 THEN FMALE=1;
  ELSE FMALE = 0;
```

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```
   IF H09056=. THEN DO;
      IF (SEX='F' AND FMALE) THEN DO;
         N19a=1;
         XSEXA=2;
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N19a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N19a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N19a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N19a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N19a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N19a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H09056=1) THEN DO;
      IF FMALE=0 THEN DO;
         N19a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N19a=9;
            XSEXA=2;
         END;
         ELSE DO;
            N19a=10;
            XSEXA=1;
         END;
      END;
   END;
   ELSE IF (H09056=2) THEN DO;
      IF FMALE THEN DO;
        N19a=11;
        XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N19a=12;
           XSEXA=1;
         END;
         ELSE DO;
            N19a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

   ARRAY NOTE19b H09057 H09058 H09059 H09060 H09061 H09062
                 ;
   IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
         N19b=1;
         DO OVER NOTE19b;
            NOTE19b=.N;
```

```
              END;
            END;  /* valid skip */
          ELSE IF FMALE=1 THEN DO;
              N19b=2;
              DO OVER NOTE19b;
                 IF NOTE19b=. THEN NOTE19b = .N;
                 ELSE NOTE19b=.C;
                 END;
          END;  /* inconsistent response */
       END;
       ELSE IF XSEXA=2 THEN  N19b=3; /* female */
       ELSE IF XSEXA=. THEN DO;       /*  missing sex  */
          N19b=4;
          DO OVER NOTE19b;
             NOTE19b=.;
             END;
          END;
       END;


    DROP FMALE CNTFMALE;


/* Note 20- breast exam for female 40 or over  */

    IF XSEXA=1 THEN DO;  /* male */
       IF  (H09058=.C OR H09058=.N) AND (H09059=.C OR H09059=.N)
       THEN N20 = 1;
    END;
    ELSE IF XSEXA=2 THEN DO;
       IF H09058=2 THEN N20=2;            /* female 40 or over */
       ELSE IF H09058=1 THEN DO;   /* female < 40 */
          IF H09059 NE . THEN H09059=.C;
          ELSE H09059=.N;
          N20=3;
       END;
       ELSE IF H09058=. THEN DO;
          IF H09059 NE . THEN DO;
             H09058=2;
             N20=4;
          END;
          ELSE IF H09059=.  THEN DO;
             IF AGE<40 THEN DO;
                H09058 = 1;
                H09059=.N;
                N20=5;
             END;
             ELSE IF AGE >= 40 THEN DO;
                H09058=2;
                N20=6;
             END;
             ELSE IF AGE=. THEN N20=7;
          END;
       END;
    END;
    ELSE IF XSEXA=. THEN N20=8;


/* Note 21 - gender vs Pregnancy */

    IF XSEXA=1 THEN N21=1;             /* male     */
    ELSE IF XSEXA=2 THEN DO;          /* female    */
       IF H09060=1 THEN DO;          /* pregnant */
          IF H09061=1 THEN DO;
             N21=2;
             IF H09062=. THEN H09062 = .N;
             ELSE H09062=.C;
          END;
          ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
             N21=3;
             H09062=.;
          END;
          ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
```

```
                N21=4;
            END;
            ELSE IF H09061 IN (3,.) THEN N21=5;
        END;
        ELSE IF H09060=2 THEN DO;
            IF H09061=. THEN H09061 = .N;
            ELSE H09061=.C;
            N21=6;
        END;
        ELSE IF H09060=3 THEN DO;
            N21=7;
            IF H09061=. THEN H09061 = .N;
            ELSE H09061=.C;
            IF H09062=. THEN H09062=.N;
            ELSE H09062=.C;
        END;
        ELSE IF H09060 IN (.) THEN DO;
            IF H09061=1 THEN DO;
                N21=8;
                H09060=1;
                IF H09062=. THEN H09062 = .N;
                ELSE H09062=.C;
            END;
            ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
                N21=9;
                H09060=1;
                H09062=.;
            END;
            ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
                H09060=1;
                N21=10;
            END;
            ELSE IF H09061=3 THEN DO;
                H09060=1;
                N21=11;
            END;
            ELSE IF H09061=. THEN DO;
                N21=12;
            END;
        END;
    END;
  END;
  ELSE IF XSEXA=. AND H09060 IN (.) THEN N21=13;



  DROP AGE SEX;


/** Note 22 -- H09065, H09066:  seen doctor 3 or more times for same condition **/

  IF H09065=1 THEN N22=1;
  ELSE IF H09065 IN (2,.) AND H09066 IN (1,2) THEN DO;
    H09065=1;
    N22=2;
  END;
  ELSE IF H09065=2 AND H09066 IN (.) THEN DO;
    H09066=.N;
    N22=3;
  END;
  ELSE IF H09065=.  AND H09066=.  THEN N22=4;


/** Note 23 -- H09067, H09068:  need or take medicine prescribed by a doctor **/

  IF H09067=1 THEN N23=1;
  ELSE IF H09067 IN (2,.) AND H09068 IN (1,2) THEN DO;
    H09067=1;
    N23=2;
  END;
  ELSE IF H09067=2 AND H09068 IN (.) THEN DO;
    H09068=.N;
    N23=3;
  END;
  ELSE IF H09067=.  AND H09068=.  THEN N23=4;
```

```
/** Note 23A1 -- S09B22, S09B22A-S09B22C: deployed within past two years **/

   IF S09B22A=1 THEN DO;
      N23A1=1;
      S09B22=1;
   END;
   ELSE IF S09B22B=1 THEN DO;
      N23A1=2;
      S09B22=2;
   END;
   ELSE IF S09B22C=1 THEN DO;
      N23A1=3;
      S09B22=3;
   END;
   ELSE IF S09B22A IN (2,.) AND S09B22B IN (2,.) AND S09B22C IN (2,.) THEN DO;
      N23A1=4;
      S09B22=.;
   END;


/** Note 24 -- H09071, H09071A-H09071E: Hispanic or Latino origin or descent **/

   /* JMA
   ****Multiple responses were given to this question so H09071 is being created
   ****from the multiple responses.;
   */

   IF H09071B=1 THEN DO;
      N24=1;
      H09071=2;
   END;
   ELSE IF H09071E=1 THEN DO;
      N24=2;
      H09071=5;
   END;
   ELSE IF H09071C=1 THEN DO;
      N24=3;
      H09071=3;
   END;
   ELSE IF H09071D=1 THEN DO;
      N24=4;
      H09071=4;
   END;
   ELSE IF H09071A=1 THEN DO;
      N24=5;
      H09071=1;
   END;
   ELSE IF H09071A IN (2,.) AND H09071B IN (2,.) AND H09071C IN (2,.) AND
          H09071D IN (2,.) AND H09071E IN (2,.) THEN DO;
      N24=6;
      H09071=.;

   END;


/** Note 24A1 -- S09012, S09013: Wait between making appointment and seeing provider **/

   IF S09012 IN (1,2,3,4,.) THEN N24A1=1;
   ELSE IF S09012=.D THEN DO;
      IF S09013 IN (1,2,3,4,5) THEN DO;
         N24A1=2;
         S09012=.;
      END;
      ELSE IF S09013=. THEN DO;
         N24A1=3;
         S09013=.N;
      END;
   END;
```

```
NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

*******************************************;

 OUTPUT;

RUN;


proc contents data=out.cschm09q;
run;
```

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

      FORMAT H09001    H09001_O YN.

             H09003    H09003_O HPLAN1_.
             H09004    H09004_O HPTIME.
             H09005    H09005_O PLACE.

             H09006 H09006_O    H09009 H09009_O    H09019 H09019_O
               YN.

             H09007    H09007_O OFTEN2_.
             H09008    H09008_O TIME1_.

             H09010    H09010_O OFTEN3_.
             H09011    H09011_O TIME2_.
             H09012    H09012_O OFTEN4_.

             S09W01    S09W01_O S09W01_.
             S09W02    S09W02_O YNDNK.
             S09W03    S09W03_O YNDNK.
             S09W04    S09W04_O YNDNK.
             S09W05    S09W05_O YNDNK.
             S09W06    S09W06_O S09W06_.
             S09W07    S09W07_O YNDNK.

             H09013    H09013_O OFTEN4_.
             H09014    H09014_O OFTEN8_.
             H09015    H09015_O YN.
             H09016    H09016_O YNDEF.
             H09017    H09017_O YNDEF.
             H09018    H09018_O RATE3_.

             H09020    H09020_O OFTEN10_.

             H09021-H09024    H09021_O--H09024_O OFTEN5_.

             H09025    H09025_O YN.
             H09026    H09026_O OFTEN8_.
             H09027    H09027_O RATE6_.

             S09009    S09009_O YN.
             S09010    S09010_O PROB1_.

             H09028    H09028_O YN.
             H09029    H09029_O OFTEN9_.
             H09030    H09030_O SPCLST.
             H09031    H09031_O RATE2_.

             S09B01 S09B01_O MNTLHLTH.
             S09B02 S09B02_O YN.
             S09B03 S09B03_O PROB1_.
             S09B04 S09B04_O RATE5_.

             H09032    H09032_O YN.
             H09033    H09033_O OFTEN11_.
             H09034B   H09034BO YN.
             H09034    H09034_O OFTEN12_.
             H09035    H09035_O YN.
             H09036    H09036_O OFTEN13_.
             H09037    H09037_O YN.
             H09038    H09038_O OFTEN14_.
             H09039    H09039_O YN.
             H09040    H09040_O OFTEN15_.
             H09041    H09041_O OFTEN15_.
             H09042    H09042_O YN.
             H09043    H09043_O OFTEN16_.
             H09044    H09044_O YNDNK.
             H09045    H09045_O OFTEN6_.
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H09046    H09046_O OFTEN6_.
H09047    H09047_O RATE4_.

S09K12    S09K12_O DISAGREE.
S09K13    S09K13_O DISAGREE.
S09K14    S09K14_O DISAGREE.
S09K15    S09K15_O DISAGREE.
S09K16    S09K16_O DISAGREE.
S09K01    S09K01_O DISAGREE.
S09K02    S09K02_O DISAGREE.
S09K03    S09K03_O DISAGREE.
S09K04    S09K04_O DISAGREE.
S09K05    S09K05_O DISAGREE.

H09048    H09048_O TIME5_.
H09049    H09049_O YNBP_.

H09050    H09050_O TIME7_.
H09051    H09051_O YNDNK.
H09052    H09052_O TIME8_.
H09053    H09053_O OFTEN7_.
H09054    H09054_O OFTEN7_.
H09055    H09055_O OFTEN7_.

H09056    H09056_O SEX.
H09057    H09057_O TIME11_.

H09058 H09058_O   H09064 H09064_O
    YN.

H09059    H09059_O TIME12_.
H09060    H09060_O YNPREG.
H09061    H09061_O PREG1_.
H09062    H09062_O PREG2_.
H09063    H09063_O HEALTH.

H09065    H09065_O YN.
H09066    H09066_O YN.
H09067    H09067_O YN.
H09068    H09068_O YN.

S09B22             S09B22_.
S09B23    S09B23_O YN.
S09B24    S09B24_O YN.
S09B25    S09B25_O YN.
S09B26    S09B26_O YN.

H09069F H09069FO
H09069I H09069IO
H09070  H09070_O
   TIME14_.

SREDA     SREDA_O  EDUC.

H09071             HISP.

SRAGE     SRAGE_O  AGEGRP.

H09072    H09072_O MEDA.
H09073    H09073_O MEDB.
H09074    H09074_O MEDSUPP.

S09N11 S09N11_O S09N11_.

S09011 S09011_O AGREE2_.
S09012 S09012_O S09012_.
S09013 S09013_O SATISFY.
S09014 S09014_O SATISFY.

MISS_1   MISS_4-MISS_9 MISS_TOT 4.
;


LABEL H09001_O='Are you the person listed on envelope'
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H09001  ='Are you the person listed on envelope'
H09002AO='Health plan(s) covered: TRICARE Prime'
H09002A ='Health plan(s) covered: TRICARE Prime'
H09002CO='Health plan(s) covered: TRICARE Ext/Stnd'
H09002C ='Health plan(s) covered: TRICARE Ext/Stnd'
H09002NO='Health plan(s) covered: TRICARE Plus'
H09002N ='Health plan(s) covered: TRICARE Plus'
H09002OO='Health plan(s) covered: TRICARE For Life'
H09002O ='Health plan(s) covered: TRICARE For Life'
H09002PO='Health plan(s) covered: TRICARE Supplmntl Ins'
H09002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
H09002QO='Health plan(s) covered: TRICARE Reserve Select'
H09002Q ='Health plan(s) covered: TRICARE Reserve Select'
H09002FO='Health plan(s) covered: Medicare'
H09002F ='Health plan(s) covered: Medicare'
H09002GO='Health plan(s) covered: FEHBP'
H09002G ='Health plan(s) covered: FEHBP'
H09002HO='Health plan(s) covered: Medicaid'
H09002H ='Health plan(s) covered: Medicaid'
H09002IO='Health plan(s) covered: Civilian HMO'
H09002I ='Health plan(s) covered: Civilian HMO'
H09002JO='Health plan(s) covered: Other civilian'
H09002J ='Health plan(s) covered: Other civilian'
H09002KO='Health plan(s) covered: USFHP'
H09002K ='Health plan(s) covered: USFHP'
H09002MO='Health plan(s) covered: Veterans'
H09002M ='Health plan(s) covered: Veterans'
H09002RO='Health plan(s) covered: Gov Hlth ins-other cntry'
H09002R ='Health plan(s) covered: Gov Hlth ins-other cntry'
H09002LO='Health plan(s) covered: Not sure'
H09002L ='Health plan(s) covered: Not sure'
H09003_O='Which health plan did you use most'
H09003  ='Which health plan did you use most'
H09004_O='Yrs in a row with health plan'
H09004  ='Yrs in a row with health plan'
H09005_O='In lst yr:fclty use most for Health care'
H09005  ='In lst yr:fclty use most for Health care'
H09006_O='In lst yr:ill/injry/cond care right away'
H09006  ='In lst yr:ill/injry/cond care right away'
H09007_O='In lst yr:get urgnt care as soon as wntd'
H09007  ='In lst yr:get urgnt care as soon as wntd'
H09008_O='In lst yr:wait btwn try get care,see prv'
H09008  ='In lst yr:wait btwn try get care,see prv'
H09009_O='In lst yr:make appts non-urgnt hlth care'
H09009  ='In lst yr:make appts non-urgnt hlth care'
H09010_O='In lst yr:non-urg hlth cre appt whn wntd'
H09010  ='In lst yr:non-urg hlth cre appt whn wntd'
H09011_O='In lst yr:days btwn appt & see prvder'
H09011  ='In lst yr:days btwn appt & see prvder'
H09012_O='In lst yr:goto emrgncy rm for own care'
H09012  ='In lst yr:goto emrgncy rm for own care'
H09013_O='In lst yr:goto Dr office/clinic for care'
H09013  ='In lst yr:goto Dr office/clinic for care'
H09014  ='Lst yr: How often talk to doctor about illness prvntn'
H09014_O='Lst yr: How often talk to doctor about illness prvntn'
H09015  ='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
H09015_O='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
H09016  ='Lst yr: Did talk to doctor about pros/cons of trtmnt'
H09016_O='Lst yr: Did talk to doctor about pros/cons of trtmnt'
H09017  ='Lst yr: Did doctor ask which trtmnt option best for you'
H09017_O='Lst yr: Did doctor ask which trtmnt option best for you'
H09018_O='Rating of all health care in lst yr'
H09018  ='Rating of all health care in lst yr'
H09019_O='Have one person think of as personal Dr'
H09019  ='Have one person think of as personal Dr'
H09020  ='Lst yr: How often visit prsnl doctor for care for yourself'
H09020_O='Lst yr: How often visit prsnl doctor for care for yourself'
H09021_O='In lst yr:how oftn Drs listen to you'
H09021  ='In lst yr:how oftn Drs listen to you'
H09022_O='In lst yr:how oftn Drs explain things'
H09022  ='In lst yr:how oftn Drs explain things'
H09023_O='In lst yr:how oftn Drs show respect'
H09023  ='In lst yr:how oftn Drs show respect'
H09024_O='In lst yr:how oftn Drs spend enough time'
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                H09024  ='In lst yr:how oftn Drs spend enough time'
                H09025  ='Lst yr: Did get care from doctor other than prsnl doctor'
                H09025_O='Lst yr: Did get care from doctor other than prsnl doctor'
                H09026   ='Lst yr: How often prsnl doctor seemed infrmd of care from other
doctors'
                H09026_O='Lst yr: How often prsnl doctor seemed infrmd of care from other
doctors'
                H09027_O='Rating of your personal Dr'
                H09027  ='Rating of your personal Dr'
                H09028  ='Lst yr: Did make any appointments to see spclst'
                H09028_O='Lst yr: Did make any appointments to see spclst'
                H09029  ='Lst yr: How often easy to get appointments with spclsts'
                H09029_O='Lst yr: How often easy to get appointments with spclsts'
                H09030  ='Lst yr: How many spclsts seen'
                H09030_O='Lst yr: How many spclsts seen'
                H09031_O='Rating of specialist seen in lst yr'
                H09031  ='Rating of specialist seen in lst yr'
                H09032  ='Lst yr: Did try to get care, test, or trtmnt through health plan'
                H09032_O='Lst yr: Did try to get care, test, or trtmnt through health plan'
                H09033  ='Lst yr: How often easy to get care, test, or trtmnt'
                H09033_O='Lst yr: How often easy to get care, test, or trtmnt'
                H09034B ='Lst yr: Did look for info from written material/Internet'
                H09034BO='Lst yr: Did look for info from written material/Internet'
                H09034  ='Lst yr: How often written material/Internet provide needed info'
                H09034_O='Lst yr: How often written material/Internet provide needed info'
                H09035   ='Lst yr: Did look for info from health plan on cost of
service/equipment'
                H09035_O='Lst yr: Did look for info from health plan on cost of
service/equipment'
                H09036  ='Lst yr: How often able to find out cost of service/equipment'
                H09036_O='Lst yr: How often able to find out cost of service/equipment'
                H09037   ='Lst yr: Did look for info from health plan on cost of prescription
meds'
                H09037_O='Lst yr: Did look for info from health plan on cost of prescription
meds'
                H09038  ='Lst yr: How often able to find out cost of prescription meds'
                H09038_O='Lst yr: How often able to find out cost of prescription meds'
                H09039  ="Lst yr: Did try to get info/help from health plan's cstmr service"
                H09039_O="Lst yr: Did try to get info/help from health plan's cstmr service"
                H09040  ='Lst yr: How often did cstmr service give needed info/help'
                H09040_O='Lst yr: How often did cstmr service give needed info/help'
                H09041  ='Lst yr: How often did cstmr service treat with courtesy/respect'
                H09041_O='Lst yr: How often did cstmr service treat with courtesy/respect'
                H09042  ='Lst yr: Did health plan give any forms to fill out'
                H09042_O='Lst yr: Did health plan give any forms to fill out'
                H09043  ='Lst yr: How often were forms easy to fill out'
                H09043_O='Lst yr: How often were forms easy to fill out'
                H09044_O='In lst yr:send in any claims'
                H09044  ='In lst yr:send in any claims'
                H09045  ='Lst yr: How often did health plan handle claims quickly'
                H09045_O='Lst yr: How often did health plan handle claims quickly'
                H09046_O='In lst yr:how oftn handle claims correctly'
                H09046  ='In lst yr:how oftn handle claims correctly'
                H09047  ='Rating of all experience with hlth plan'
                H09047_O='Rating of all experience with hlth plan'
                H09048_O='Blood pressure: when lst reading'
                H09048  ='Blood pressure: when lst reading'
                H09049_O='Blood pressure: know if too high or not'
                H09049  ='Blood pressure: know if too high or not'
                H09050_O='When did you lst have a flu shot'
                H09050  ='When did you lst have a flu shot'
                H09051  ='Smoked at least 100 cigarettes in life'
                H09051_O='Smoked at least 100 cigarettes in life'
                H09052  ='Smoke everyday, some days or not at all'
                H09052_O='Smoke everyday, some days or not at all'
                H09053_O='Lst yr: # visits advised to quit smoking'
                H09053  ='Lst yr: # visits advised to quit smoking'
                H09054  ='# visits recom medic assist quit smoking'
                H09054_O='# visits recom medic assist quit smoking'
                H09055  ='# vist discu meth/strag asst quit smokng'
                H09055_O='# vist discu meth/strag asst quit smokng'
                H09056_O='Are you male or female'
                H09056  ='Are you male or female'
                H09057_O='Lst have a Pap smear test'
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H09057  ='Lst have a Pap smear test'
H09058_O='Are you under age 40'
H09058  ='Are you under age 40'
H09059_O='Lst time: breasts checked mammography'
H09059  ='Lst time: breasts checked mammography'
H09060_O='Been pregnant in lst yr or pregnant now'
H09060  ='Been pregnant in lst yr or pregnant now'
H09061_O='In what trimester is your pregnancy'
H09061  ='In what trimester is your pregnancy'
H09062_O='Trimester first received prenatal care'
H09062  ='Trimester first received prenatal care'
H09063_O='In gnrl, how would you rate ovrall hlth'
H09063  ='In gnrl, how would you rate ovrall hlth'
H09064_O='Impairment/Hlth prblm limit activities'
H09064  ='Impairment/Hlth prblm limit activities'
H09065  ='Lst yr: Have seen doctor 3 or more times for same condition'
H09065_O='Lst yr: Have seen doctor 3 or more times for same condition'
H09066  ='Has condition lasted for at least 3 months'
H09066_O='Has condition lasted for at least 3 months'
H09067  ='Need to take medicine prescribed by a doctor'
H09067_O='Need to take medicine prescribed by a doctor'
H09068  ='Medicine to treat condition that has lasted for at least 3 months'
H09068_O='Medicine to treat condition that has lasted for at least 3 months'
H09069FO='Height without shoes (feet)'
H09069F ='Height without shoes (feet)'
H09069IO='Height without shoes (inches)'
H09069I ='Height without shoes (inches)'
H09070_O='Weight without shoes'
H09070  ='Weight without shoes'
SREDA_O ='Highest grade completed'
SREDA   ='Highest grade completed'
H09071  ='Are you Spanish/Hispanic/Latino'
H09071AO='Not Spanish/Hispanic/Latino'
H09071A ='Not Spanish/Hispanic/Latino'
H09071BO='Mexican, Mexican American, Chicano'
H09071B ='Mexican, Mexican American, Chicano'
H09071CO='Puerto Rican'
H09071C ='Puerto Rican'
H09071DO='Cuban'
H09071D ='Cuban'
H09071EO='Other Spanish, Hispanic, or Latino'
H09071E ='Other Spanish, Hispanic, or Latino'
SRRACEAO='Race: White'
SRRACEA ='Race: White'
SRRACEBO='Race: Black or African American'
SRRACEB ='Race: Black or African American'
SRRACECO='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
SRRACEDO='Race: Asian'
SRRACED ='Race: Asian'
SRRACEEO='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
SRAGE_O ='What is your age now'
SRAGE   ='What is your age now'
H09072  ='Currently Covered Medicare Part A'
H09072_O='Currently Covered Medicare Part A'
H09073  ='Currently Covered Medicare Part B'
H09073_O='Currently Covered Medicare Part B'
H09074  ='Currently Covered Medicare Supplemental'
H09074_O='Currently Covered Medicare Supplemental'

S09W01_O='Last ER trip for accdnt/injry or other hlth prblm'
S09W01  ='Last ER trip for accdnt/injry or other hlth prblm'
S09W02_O='Able to contact doctor before going to ER'
S09W02  ='Able to contact doctor before going to ER'
S09W03_O='Doctor told you to go to the ER'
S09W03  ='Doctor told you to go to the ER'
S09W04_O='Tried to see or call a doctor before going to ER'
S09W04  ='Tried to see or call a doctor before going to ER'
S09W05_O='Places other than ER could have gone for trtmnt'
S09W05  ='Places other than ER could have gone for trtmnt'
S09W06_O='Why decide to go to ER rather than alternative'
S09W06  ='Why decide to go to ER rather than alternative'
S09W07_O='Admitted to hospital for overnight stay'
```

```
        S09W07  ='Admitted to hospital for overnight stay'

        S09009_O='Same prsnl doctor/nurse before this hlth plan'
        S09009  ='Same prsnl doctor/nurse before this hlth plan'
        S09010_O='Prblm getting prsnl doctor/nurse you are happy with'
        S09010  ='Prblm getting prsnl doctor/nurse you are happy with'

        S09B01_O='Self rate of overall mental/emotional health'
        S09B01  ='Self rate of overall mental/emotional health'
        S09B02_O='Lst yr: Needed treatmnt/cnslng-prsnl prob'
        S09B02  ='Lst yr: Needed treatmnt/cnslng-prsnl prob'
        S09B03_O='Lst yr: Prblm gttng needed treatmnt/cnslng'
        S09B03  ='Lst yr: Prblm gttng needed treatmnt/cnslng'
        S09B04_O='Lst yr: Rate of treatmnt/cnslng received'
        S09B04  ='Lst yr: Rate of treatmnt/cnslng received'

        S09K12_O='Hlth plan cares more about money than needed trtmnt'
        S09K12  ='Hlth plan cares more about money than needed trtmnt'
        S09K13_O='Need to double check everything hlth plan does'
        S09K13  ='Need to double check everything hlth plan does'
        S09K14_O='Hlth plan will pay for everything it is supposed to'
        S09K14  ='Hlth plan will pay for everything it is supposed to'
        S09K15_O='Hlth plan will give straight answer to a question'
        S09K15  ='Hlth plan will give straight answer to a question'
        S09K16_O='Complete trust in hlth plan'
        S09K16  ='Complete trust in hlth plan'
        S09K01_O='Hlth care prvdr cares more about his/her convenience'
        S09K01  ='Hlth care prvdr cares more about his/her convenience'
        S09K02_O='Hlth care prvdr is always thoughtful and through'
        S09K02  ='Hlth care prvdr is always thoughtful and through'
        S09K03_O='Completely trust trtmnt decisions of hlth care prvdr'
        S09K03  ='Completely trust trtmnt decisions of hlth care prvdr'
        S09K04_O='Hlth care prvdr is honest about trtmnt options'
        S09K04  ='Hlth care prvdr is honest about trtmnt options'
        S09K05_O='Complete trust in hlth care prvdr'
        S09K05  ='Complete trust in hlth care prvdr'

        S09B22  ='You or spouse been deployed to combat in past two yrs'
        S09B22AO='Deployed in the past year'
        S09B22A ='Deployed in the past year'
        S09B22BO='Deployed in the past two years'
        S09B22B ='Deployed in the past two years'
        S09B22CO='Not deployed in the past two years'
        S09B22C ='Not deployed in the past two years'
        S09B23_O='Past month: nightmares/thoughts you did not want'
        S09B23  ='Past month: nightmares/thoughts you did not want'
        S09B24_O='Past month: tried not to think about or be reminded'
        S09B24  ='Past month: tried not to think about or be reminded'
        S09B25_O='Past month: constantly on guard, watchful, or startled'
        S09B25  ='Past month: constantly on guard, watchful, or startled'
        S09B26_O='Past month: felt numb or detached from others'
        S09B26  ='Past month: felt numb or detached from others'

        S09N11_O='Prefer civilian or military facilities for hlth care'
        S09N11  ='Prefer civilian or military facilities for hlth care'

        S09011_O='Able to see my provider when needed'
        S09011  ='Able to see my provider when needed'
        S09012_O='Last visit: days btwn making appntmnt and seeing prvdr'
        S09012  ='Last visit: days btwn making appntmnt and seeing prvdr'
        S09013_O='Last visit: satisfaction with time waited for appntmnt'
        S09013  ='Last visit: satisfaction with time waited for appntmnt'
        S09014_O='Last visit: satisfaction with hlth care received'
        S09014  ='Last visit: satisfaction with hlth care received'


        N1  = "Coding Scheme Note 1"
        N2  = "Coding Scheme Note 2"
        N3  = "Coding Scheme Note 3"
        N3A1 = "Coding Scheme Note 3A1"
        N3A2 = "Coding Scheme Note 3A2"
        N3A3 = "Coding Scheme Note 3A3"
        N3A4 = "Coding Scheme Note 3A4"
        N4  = "Coding Scheme Note 4"
```

```
N5   = "Coding Scheme Note 5"
N6   = "Coding Scheme Note 6"
N7   = "Coding Scheme Note 7"
N8   = "Coding Scheme Note 8"
N8A1 = "Coding Scheme Note 8A1"
N9   = "Coding Scheme Note 9"
N10  = "Coding Scheme Note 10"
N10A1= "Coding Scheme Note 10A1"
N11  = "Coding Scheme Note 11"
N11B = "Coding Scheme Note 11B"
N12  = "Coding Scheme Note 12"
N13  = "Coding Scheme Note 13"
N14  = "Coding Scheme Note 14"
N15  = "Coding Scheme Note 15"
N16  = "Coding Scheme Note 16"
N17  = "Coding Scheme Note 17"
N18  = "Coding Scheme Note 18"
N19A = "Coding Scheme Note 19A"
N19B = "Coding Scheme Note 19B"
N20  = "Coding Scheme Note 20"
N21  = "Coding Scheme Note 21"
N22  = "Coding Scheme Note 22"
N23  = "Coding Scheme Note 23"
N23A1= "Coding Scheme Note 23A1"
N24  = "Coding Scheme Note 24"
N24A1= "Coding Scheme Note 24A1"


    MISS_1 = "Count of: Violates Skip Pattern"
    MISS_4 = "Count of: Incomplete grid error"
    MISS_5 = "Count of: Scalable reponse of Don't know"
    MISS_6 = "Count of: Not applicable - valid skip"
    MISS_7 = "Count of: Out-of-range error"
    MISS_8 = "Count of: Multiple response error"
    MISS_9 = "Count of: No response - invalid skip"
    MISS_TOT = "Total number of missing responses"
    XSEXA = "Male or Female  - R"
;
```

F.2.G   Q4FY2009\PROGRAMS\CODINGSCHEME\CSCHM09Q.SAS - IMPLEMENT CODING SCHEME AND CODING TABLES FOR QUARTER 4 FY2009.

```
****************************************************************************;
*  Program:  Cschm09q.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.sas7bdat - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  CSCHM09Q.sas7bdat - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*            10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*             3/22/2002 - Updated Variable names for Q1 2002 and added
*                         Include file RENAME.SAS to change the variable
*                         names from 01 to 02. Skipping 01 designation to make
*                         survey reflect year of fielding
*             5/09/2002 - Change to logic in TFL supplement
*             3/17/2003 - Updated Variables names for Q1 2003
*             4/11/2003 - Added note 19a to accomodate Q1 2003 error where
*                         an option on most of the questionnaires was omitted for
*                         H03062
*             3/28/2008 - Updated Variable names for Q2 FY 2008
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  Cschm09q.fmt
*
****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY     "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN      v9 "..\..\DATA\AFINAL";
LIBNAME OUT     v9 "..\..\DATA\AFINAL";

%LET INDATA=MERGESYN;
%LET OUTDATA=CSCHM09q;
%LET PERIOD=July 2008 to June, 2009;

/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H09001  H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
 H09002I H09002J H09002K H09002M H09002R H09002L H09003  H09004  S09J01
 S09J02A S09J02B S09J02C S09J02D S09J02E S09J02F S09J02G S09J02H S09J02I S09J03
 S09J04  S09J05  S09J06  S09J07A S09J07B S09J07F S09J07I S09J07J S09J07G S09J07D
 S09J07E S09J07C S09J07M S09J07N S09J07H S09J07K S09J07L S09J08  S09J09A S09J09D
 S09J09I S09J09J S09J09H S09J09C S09J09E S09J09F S09J09B S09J09G S09J09K S09J09L
 S09J10
 H09005  H09006  H09007  H09008  H09009  H09010  H09011  H09012  H09013  H09014
 H09015  H09016  H09017  H09018  H09019  H09020  H09021  H09022  H09023  H09024
 H09025  H09026  H09027
 S09009  S09010
 H09028  H09029  H09030  H09031
 S09B01  S09B02  S09B03  S09B04
 H09032  H09033  H09034B H09034  H09035  H09036  H09037  H09038  H09039  H09040
 H09041  H09042  H09043  H09044  H09045  H09046  H09047  H09048  H09049  H09050
 H09051  H09052  H09053  H09054  H09055
 S09D03  S09D02
 H09056  H09057  H09058  H09059  H09060  H09061  H09062  H09063  H09064  H09065
 H09066  H09067  H09068  H09069F H09069I H09070
 SREDA   H09071A H09071B H09071C H09071D H09071E
 SRRACEA SRRACEB SRRACEC SRRACED SRRACEE SRAGE
 H09072  H09073  H09074  S09Z02
 S09Z03  S09Z04  S09Z06  S09Z07  S09Z10  S09Z11  S09Z12  S09Z13  S09Z14  S09Z01
 S09Z15  S09Z16  S09Z17
 S09J11  S09J12
 ;
```

```
/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H09001_O H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
 H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO H09003_O H09004_O S09J01_O
 S09J02AO S09J02BO S09J02CO S09J02DO S09J02EO S09J02FO S09J02GO S09J02HO S09J02IO S09J03_O
 S09J04_O S09J05_O S09J06_O S09J07AO S09J07BO S09J07FO S09J07IO S09J07JO S09J07GO S09J07DO
 S09J07EO S09J07CO S09J07MO S09J07NO S09J07HO S09J07KO S09J07LO S09J08_O S09J09AO S09J09DO
 S09J09IO S09J09JO S09J09HO S09J09CO S09J09EO S09J09FO S09J09BO S09J09GO S09J09KO S09J09LO
 S09J10_O
 H09005_O H09006_O H09007_O H09008_O H09009_O H09010_O H09011_O H09012_O H09013_O H09014_O
 H09015_O H09016_O H09017_O H09018_O H09019_O H09020_O H09021_O H09022_O H09023_O H09024_O
 H09025_O H09026_O H09027_O
 S09009_O S09010_O
 H09028_O H09029_O H09030_O H09031_O
 S09B01_O S09B02_O S09B03_O S09B04_O
 H09032_O H09033_O H09034BO H09034_O H09035_O H09036_O H09037_O H09038_O H09039_O H09040_O
 H09041_O H09042_O H09043_O H09044_O H09045_O H09046_O H09047_O H09048_O H09049_O H09050_O
 H09051_O H09052_O H09053_O H09054_O H09055_O
 S09D03_O S09D02_O
 H09056_O H09057_O H09058_O H09059_O H09060_O H09061_O H09062_O H09063_O H09064_O H09065_O
 H09066_O H09067_O H09068_O H09069FO H09069IO H09070_O
 SREDA_O  H09071AO H09071BO H09071CO H09071DO H09071EO
 SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO SRAGE_O
 H09072_O H09073_O H09074_O S09Z02_O
 S09Z03_O S09Z04_O S09Z06_O S09Z07_O S09Z10_O S09Z11_O S09Z12_O S09Z13_O S09Z14_O S09Z01_O
 S09Z15_O S09Z16_O S09Z17_O
 S09J11_O S09J12_O
 ;

TITLE  "DoD 2009 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";




DATA MERGESYN;

   SET IN.MERGESYN(RENAME=(H09070  = H09070CH
                           S09J05  = S09J05CH
                          ));

**********************************************************************;
* Code added by Jacqueline Agufa 09/15/2004 to fix name of race variable;
**********************************************************************;

   RENAME SRACEA = SRRACEA;
   RENAME SRACEB = SRRACEB;
   RENAME SRACEC = SRRACEC;
   RENAME SRACED = SRRACED;
   RENAME SRACEE = SRRACEE;


   **** update variables with both filled items and check boxes
   **** Per Eric Schone;


   IF H09069F LT 1     THEN H09069F=H09069FN;
   IF H09069I IN (-9,.) THEN H09069I=H09069IN;


   H09070= COMPRESS(H09070CH,' ')*1;

   DROP H09070CH;


   IF H09070=0   AND H09070N=-9     THEN H09070 =H09070N;
   IF H09070<100 AND H09070N NE -9  THEN H09070 =H09070N;


   *** Correct odd height and weights Per Eric Schone;

   IF H09069F NOT IN (-9,.) THEN DO;
     IF H09069F < 2 OR
        H09069F > 8
```

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```
     THEN H09069F= -7;
  END;

  IF 0 <= H09070 < 40 OR
     H09070 > 500
  THEN H09070= -7;

  /* MER 09/16/09 Handle monthly cost variable similar to weight variable */
  S09J05= COMPRESS(S09J05CH,' ')*1;

  DROP S09J05CH;

  IF S09J05=0   AND S09J05N IN (-9)     THEN S09J05 =S09J05N;


RUN;


DATA OUT.CSCHM09q;

  LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
  INFORMAT &VARLIST2. 4.;
  %INCLUDE "CSCHM09q.FMT";


/* label and format statements for original variables */


   SET MERGESYN;



**************************************************************;
**** Recodes for invalid responses:***************************;
**************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 2009 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                             */

  SEX=PNSEXCD;
  AGE=INPUT(DAGEQY,8.);

  ARRAY RECODE(*) &VARLIST1;
  ARRAY   ORIG(*) &VARLIST2;

  DO I = 1 to DIM(ORIG);
      ORIG(I) = RECODE(I);
      IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
         ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
         ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
         ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
         ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
         ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
         ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
         ELSE RECODE(I)=RECODE(I);
      END;
  END;
  DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*)
        H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
```

```
          H09002I H09002J H09002K H09002M H09002R H09002L

          S09J02A S09J02B S09J02C S09J02D S09J02E S09J02F S09J02G S09J02H S09J02I
          S09J07A S09J07B S09J07F S09J07I S09J07J S09J07G S09J07D S09J07E S09J07C
          S09J07M S09J07N S09J07H S09J07K S09J07L S09J09A S09J09D S09J09I S09J09J
          S09J09H S09J09C S09J09E S09J09F S09J09B S09J09G S09J09K S09J09L

          H09071A H09071B H09071C H09071D H09071E
          SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
               ;


  ARRAY INFORMAT(*)
          H09002AO H09002CO H09002NO H09002OO H09002PO H09002QO H09002FO H09002GO H09002HO
          H09002IO H09002JO H09002KO H09002MO H09002RO H09002LO

          S09J02AO S09J02BO S09J02CO S09J02DO S09J02EO S09J02FO S09J02GO S09J02HO S09J02IO
          S09J07AO S09J07BO S09J07FO S09J07IO S09J07JO S09J07GO S09J07DO S09J07EO S09J07CO
          S09J07MO S09J07NO S09J07HO S09J07KO S09J07LO S09J09AO S09J09DO S09J09IO S09J09JO
          S09J09HO S09J09CO S09J09EO S09J09FO S09J09BO S09J09GO S09J09KO S09J09LO

          H09071AO H09071BO H09071CO H09071DO H09071EO
          SRRACEAO SRRACEBO SRRACECO SRRACEDO SRRACEEO

               ;


  DO J=1 TO DIM(INFORMAT);
      IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
      ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT
          H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G H09002H
          H09002I H09002J H09002K H09002M H09002R H09002L

          S09J02A S09J02B S09J02C S09J02D S09J02E S09J02F S09J02G S09J02H S09J02I
          S09J07A S09J07B S09J07F S09J07I S09J07J S09J07G S09J07D S09J07E S09J07C
          S09J07M S09J07N S09J07H S09J07K S09J07L S09J09A S09J09D S09J09I S09J09J
          S09J09H S09J09C S09J09E S09J09F S09J09B S09J09G S09J09K S09J09L

          H09071A H09071B H09071C H09071D H09071E
          SRRACEA SRRACEB SRRACEC SRRACED SRRACEE
         MARKED.;


*********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;

/** Note 1 -- H09003, H09004 health plan usage  **/

  IF H09003 > 0 OR H09003 =.D THEN N1=1;
  ELSE IF H09003=.N  THEN DO;
      IF H09004 NOT=. THEN DO;
         N1=2;
         H09004=.C;
      END;
      ELSE DO;
         N1=3;
         H09004=.N;
      END;
  END;
  ELSE IF H09003=.   THEN N1=4;

/** Note 1A1 -- S09J01, S09J02A-S09J02I, S09J03-S09J06,
               S09J07A-S09J07N, S09J08, S09J09A-S09J09L,
               S09J10: COBRA or retirement coverage from a previous job,
                     or some other group **/
  ARRAY NOTE1A11  S09J02A--S09J02H;
```

```
    ARRAY NOTE1A12 S09J07A S09J07B S09J07F S09J07I S09J07J S09J07G S09J07D
                   S09J07E S09J07C S09J07M S09J07N S09J07H S09J07K S09J07L
                   S09J09A S09J09D S09J09I S09J09J S09J09H S09J09C S09J09E
                   S09J09F S09J09B S09J09G S09J09K S09J09L;

    ARRAY NOTE1A13  S09J03-S09J06 S09J08 S09J10;

    N1A1MARK1=0;
    N1A1MARK2=0;

    DO OVER NOTE1A11;
        IF NOTE1A11 NOT IN (.,2) THEN N1A1MARK1+1;
    END;

    DO OVER NOTE1A12;
        IF NOTE1A12 NOT IN (.,2) THEN N1A1MARK2+1;
    END;

    DO OVER NOTE1A13;
        IF NOTE1A13 NOT IN (.,.D) THEN N1A1MARK2+1;
    END;


    IF S09J01=1 THEN N1A1=1;
    ELSE IF S09J01 IN (2,.) AND N1A1MARK1 > 0 THEN DO;
        N1A1=2;
        S09J01=1;
    END;
    ELSE IF S09J01=2 AND N1A1MARK1=0 THEN DO;
        N1A1=3;
        DO OVER NOTE1A11;
            NOTE1A11=.N;
        END;
        IF S09J02I IN (.,2) THEN S09J02I=.N;
        ELSE S09J02I=.C;
        DO OVER NOTE1A12;
            IF NOTE1A12 IN (.,2) THEN NOTE1A12=.N;
            ELSE NOTE1A12=.C;
        END;
        DO OVER NOTE1A13;
            IF NOTE1A13=. THEN NOTE1A13=.N;
            ELSE NOTE1A13=.C;
        END;
    END;
    ELSE IF S09J01=. AND N1A1MARK1=0 THEN DO;
        IF N1A1MARK2 > 0 THEN DO;
            N1A1=4;
            S09J01=1;
        END;
        ELSE N1A1=5;
    END;

    DROP N1A1MARK1 N1A1MARK2;



/** Note 1A2 -- S09J03-S09J05: You/you and others covered in civiliean policy **/

    ARRAY NOTE1A2  S09J04-S09J05;


    IF S09J03 IN (.N,.C) THEN N1A2=1;
    ELSE IF S09J03 IN (1, 2)
    THEN DO;
        N1A2=2;
    END;
    ELSE IF S09J03 IN (4)
        THEN DO;
        N1A2=3;
        DO OVER NOTE1A2;
            IF NOTE1A2=. THEN NOTE1A2=.N;
            ELSE NOTE1A2=.C;
        END;
    END;
```

```
     ELSE IF S09J03 IN (.)  THEN N1A2=4;


/** Note 1A3 -- S09J04, S09J05: Insurance Coverage payment **/

   IF S09J04 IN(.N, .C) AND S09J05 IN (.N, .C) THEN N1A3=1;
   ELSE IF S09J04 IN (1,2,.D,.) AND (S09J05 >0 or  S09J05 IN (.D, .) )
   THEN DO;
      N1A3=2;
   END;
   ELSE IF S09J04 IN (1,2,.D,.) AND (S09J05=0) THEN DO;
      N1A3=3;
      S09J04=3;
      S09J05=.C;
   END;
   ELSE IF S09J04=3 THEN DO;
      N1A3=4;
      IF S09J05=. THEN S09J05=.N;
      ELSE S09J05=.C;
   END;


/** Note 1A4 -- S09J06, S09J07A-S09J07N: Used civilian coverage **/

   ARRAY NOTE1A4  S09J07A S09J07B S09J07F S09J07I S09J07J S09J07G S09J07D
                  S09J07E S09J07C S09J07M S09J07N S09J07H S09J07K S09J07L ;

   N1A4NMISS=0;

   DO OVER NOTE1A4;
      IF NOTE1A4 NOT IN (.,2) THEN N1A4NMISS+1;
   END;


   IF S09J06 IN (.N, .C) THEN N1A4=1;
   ELSE IF S09J06 IN (.,1) AND N1A4NMISS > 0 THEN DO;
      N1A4=2;
      S09J06=2;
   END;
   ELSE IF S09J06=1 AND N1A4NMISS=0 THEN DO;
      N1A4=3;
      DO OVER NOTE1A4;
         NOTE1A4=.N;
      END;
   END;
   ELSE IF S09J06=2 THEN DO;
      N1A4=4;
   END;
   ELSE IF S09J06=. AND N1A4NMISS=0 THEN DO;
      N1A4=5;
      DO OVER NOTE1A4;
         IF NOTE1A4 NE . THEN NOTE1A4=.;
      END;
   END;

   DROP N1A4NMISS;


/** Note 1A5 -- S09J08, S09J09A-S09J09L: Used TRICARE for health coverage **/

   ARRAY NOTE1A5  S09J09A S09J09D S09J09I S09J09J S09J09H S09J09C S09J09E
                  S09J09F S09J09B S09J09G S09J09K S09J09L;

   N1A5NMISS=0;

   DO OVER NOTE1A5;
      IF NOTE1A5 NOT IN (.,2) THEN N1A5NMISS+1;
   END;


   IF S09J08 IN (.N, .C) THEN N1A5=1;
   ELSE IF S09J08 IN (.,1) AND N1A5NMISS > 0 THEN DO;
      N1A5=2;
      S09J08=2;
```

```
      END;
    ELSE IF S09J08=1 AND N1A5NMISS=0 THEN DO;
       N1A5=3;
       DO OVER NOTE1A5;
          NOTE1A5=.N;
       END;
    END;
    ELSE IF S09J08=2 THEN DO;
       N1A5=4;
    END;
    ELSE IF S09J08=. AND N1A5NMISS=0 THEN DO;
       N1A5=5;
       DO OVER NOTE1A5;
          IF NOTE1A5 NE . THEN NOTE1A5=.;
       END;
    END;

    DROP N1A5NMISS;


/** Note 2 -- H09006,H09007,H09008:  illness or injury **/

    ARRAY NOTE2 H09007 H09008;
    N2MARK=0;
    N2NMISS=0;
    N2NN=0;

    DO OVER NOTE2;
       IF NOTE2 NE . THEN N2NMISS+1;
       IF NOTE2 NOT IN (.N,.) THEN N2MARK+1;
       IF NOTE2 EQ .N THEN N2NN+1;
    END;


    IF H09006=1 AND N2NMISS=0 THEN DO;
        N2=1;
    END;
    ELSE IF H09006 IN (1,.) AND N2NMISS>0 AND N2MARK=0 THEN DO;
       H09006=2;
       N2=2;
       DO OVER NOTE2;
          IF NOTE2=. THEN NOTE2=.N;
          ELSE NOTE2=.C;
       END;
    END;
    ELSE IF H09006=1 AND N2MARK=1 AND N2NN=1 THEN  DO;
       DO OVER NOTE2;
          IF NOTE2=.N THEN NOTE2=.;
       END;
       N2=3;
    END;
    ELSE IF H09006=1 AND N2MARK>0 THEN DO;
       N2=4;
    END;
    ELSE IF H09006=2 AND N2MARK=1 AND N2NN=1  THEN  DO;
       H09007=.C;
       H09008=.C;
       N2=5;
    END;
    ELSE IF H09006 IN (2,.) AND N2MARK>0 THEN DO;
       H09006=1;
       N2=6;
       DO OVER NOTE2;
          IF NOTE2=.N THEN NOTE2=.;
       END;
    END;
    ELSE IF H09006=2 AND (N2NMISS=0 OR (N2NMISS>0 AND N2MARK=0)) THEN DO;
       N2=7;
       DO OVER NOTE2;
          IF NOTE2=. THEN NOTE2=.N;
          ELSE NOTE2=.C;
       END;
    END;
    ELSE IF H09006=.  AND N2NMISS=0 THEN N2=8;
```

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```
   DROP N2NMISS N2MARK N2NN;


/** Note 3 -- H09009,H09010,H09011:  regular or routine healthcare **/

   ARRAY Note3 H09010 H09011;
   N3MARK=0;
   N3NMISS=0;
   N3NN=0;

   DO OVER Note3;
      IF Note3 NE . THEN N3NMISS+1;
      IF Note3 NOT IN (.N,.) THEN N3MARK+1;
      IF Note3 EQ .N THEN N3NN+1;
   END;

   IF H09009=1 AND N3NMISS=0 THEN DO;
       N3=1;
   END;
   ELSE IF H09009 IN (1,.) AND N3NMISS>0 AND N3MARK=0 THEN DO;
      H09009=2;
      N3=2;
      DO OVER Note3;
         IF Note3=. THEN Note3=.N;
         ELSE Note3=.C;
      END;
   END;
   ELSE IF H09009=1 AND N3MARK=1 AND N3NN=1 THEN  DO;
      DO OVER Note3;
         IF Note3=.N THEN Note3=.;
      END;
      N3=3;
   END;
   ELSE IF H09009=1 AND N3MARK>0 THEN DO;
      N3=4;
   END;
   ELSE IF H09009=2 AND N3MARK=1 AND N3NN=1  THEN  DO;
      H09010=.C;
      H09011=.C;
      N3=5;
   END;
   ELSE IF H09009 IN (2,.) AND N3MARK>0 THEN DO;
      H09009=1;
      N3=6;
      DO OVER Note3;
         IF Note3=.N THEN Note3=.;
      END;
   END;
   ELSE IF H09009=2 AND (N3NMISS=0 OR (N3NMISS>0 AND N3MARK=0)) THEN DO;
      N3=7;
      DO OVER Note3;
         IF Note3=. THEN Note3=.N;
         ELSE Note3=.C;
      END;
   END;
   ELSE IF H09009=.  AND N3NMISS=0 THEN N3=8;


   DROP N3NMISS N3MARK N3NN;


/** Note 4 -- H09013, H09014-H09018: doctor's office or clinic **/

   ARRAY NOTE4  H09014-H09018;

   N4MARK=0;
   N4NMISS=0;

   DO OVER NOTE4;
      IF NOTE4 NE . THEN N4NMISS+1;
      IF NOTE4 NOT IN  (., .N) THEN N4MARK+1;
   END;
```

```
IF H09013=1 THEN DO;
    N4=1;
    DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
    END;
END;
ELSE IF H09013 IN (2,3,4,5,6,7,.) AND N4NMISS>0 AND N4MARK=0 THEN DO;
    H09013=1;
    N4=2;
    DO OVER NOTE4;
        IF NOTE4=. THEN NOTE4=.N;
        ELSE NOTE4=.C;
    END;
END;
ELSE IF H09013 IN (2,3,4,5,6,7) AND (N4NMISS=0 OR N4MARK>0) THEN DO;
    DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
    END;
    N4=3;
END;
ELSE IF H09013=.  AND N4NMISS=0 THEN N4=4;
ELSE IF H09013 IN (.) AND N4MARK>0 THEN DO;
    N4=5;
    DO OVER NOTE4;
        IF NOTE4=.N THEN NOTE4=.;
    END;
END;

DROP N4NMISS N4MARK;


/** Note 5 -- H09015, H09016-H09017: doctor's office or clinic- treatment **/

 IF H09015 IN (.N,.C) THEN N5=1;
 ELSE IF H09015= 1  THEN N5=2;
 ELSE IF H09015 IN (2,.) AND H09016 IN (1,2) THEN  DO;
    N5=3;
    H09015=1;
 END;
 ELSE IF H09015 IN (2,.) AND (H09016 IN (3,4,.) AND H09017 IN (1,2)) THEN  DO;
    N5=4;
    H09015=1;
 END;
 ELSE IF H09015 IN (2) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
    N5=5;
    IF H09016 = . THEN H09016 = .N;
    ELSE H09016 = .C;
    IF H09017 = . THEN H09017 = .N;
    ELSE H09017 = .C;
 END;
 ELSE IF H09015 IN (.) AND (H09016 IN (3,4,.) AND H09017 IN (3,4,.)) THEN  DO;
    N5=6;
 END;



/** Note 6 -- H09019, H09020-H09027, S09009: personal doctor **/
/* MER 07/01/09 */

  ARRAY NOTE6  H09021-H09024;

  N6MARK=0;

  DO OVER NOTE6;
     IF NOTE6 NOT IN  (., .N) THEN N6MARK+1;
  END;

  IF H09020 NOT IN (0,.) THEN N6MARK+1;


  IF H09019 = 1  THEN DO;
```

```
      N6=1;
      IF H09027=.N THEN H09027=.;
   END;
   ELSE IF H09019 in (2,.) AND H09027 in (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
      N6=2;
      H09019=1;
   END;
   ELSE IF H09019 in (2,.) AND N6MARK>0 AND H09027 = . THEN DO;
      N6=3;
      H09019=1;
   END;
   ELSE IF H09019 = 2 AND N6MARK>0 AND H09027 = .N THEN DO;
      N6=4;
      IF H09020=. THEN H09020=.N;
      ELSE H09020=.C;
      DO OVER NOTE6;
         IF NOTE6=. THEN NOTE6=.N;
         ELSE NOTE6=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
      IF S09009=. THEN S09009=.N;
      ELSE S09009=.C;
      H09027=.C;
   END;
   ELSE IF H09019 = 2 AND N6MARK=0 AND H09027 in (.N,.) THEN DO;
      N6=5;
      IF H09020=. THEN H09020=.N;
      ELSE H09020=.C;
      DO OVER NOTE6;
         IF NOTE6=. THEN NOTE6=.N;
         ELSE NOTE6=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
      IF S09009=. THEN S09009=.N;
      ELSE S09009=.C;
      IF H09027=. THEN H09027=.N;
      ELSE H09027=.C;
   END;
   ELSE IF H09019 = . AND H09027 = .N THEN DO; /* MER 07/31/09 combined rows 6 and 7 */
      N6=6;
      H09019=2;
      IF H09020=. THEN H09020=.N;
      ELSE H09020=.C;
      DO OVER NOTE6;
         IF NOTE6=. THEN NOTE6=.N;
         ELSE NOTE6=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
      IF S09009=. THEN S09009=.N;
      ELSE S09009=.C;
      H09027=.C;
   END;
   ELSE IF H09019 = . AND N6MARK=0 AND H09027 = . THEN N6=7;

   DROP N6MARK;


/** Note 7 -- H09020, H09021-H09026: personal doctor visit **/

   ARRAY NOTE7  H09021-H09024;

   N7MARK=0;
   N7NMISS=0;

   DO OVER NOTE7;
```

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```
      IF NOTE7 NE . THEN N7NMISS+1;
      IF NOTE7 NOT IN  (., .N) THEN N7MARK+1;
   END;


   IF H09020 IN (.N, .C) THEN N7=1;
   ELSE IF H09020=0 THEN DO;
      N7=2;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
   END;
   ELSE IF H09020 IN (1,2,3,4,5,6,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
      H09020=0;
      N7=3;
      DO OVER NOTE7;
         IF NOTE7=. THEN NOTE7=.N;
         ELSE NOTE7=.C;
      END;
      IF H09025=. THEN H09025=.N;
      ELSE H09025=.C;
      IF H09026=. THEN H09026=.N;
      ELSE H09026=.C;
   END;
   ELSE IF H09020 IN (1,2,3,4,5,6,.) AND (N7NMISS=0 OR N7MARK>0) THEN DO;
      DO OVER NOTE7;
         IF NOTE7=.N THEN NOTE7=.;
      END;
      N7=4;
   END;

   DROP N7NMISS N7MARK;



/** Note 8 -- H09025, H09026:  care from another doctor or healthcare provider **/

   IF H09025 IN (.N, .C) THEN N8=1;
   ELSE IF H09025=1 THEN N8=2;
   ELSE IF H09025 IN (2,.) AND H09026 IN (1,2,3,4) THEN DO;
      H09025=1;
      N8=3;
   END;
   ELSE IF H09025=2 AND H09026 IN (.) THEN DO;
      H09026=.N;
      N8=4;
   END;
   ELSE IF H09025=.  AND H09026=.  THEN N8=5;


/** Note 8A1 -- S09009, S09010:  problem getting new personal doctor or nurse **/

   IF S09009 IN (.N,.C) THEN N8A1=1; /* MER 07/31/09 gave each S09009 value its own row for
analysis purposes */
   ELSE IF S09009=1 THEN DO;
      N8A1=2;
      IF S09010=. THEN S09010=.N;
      ELSE S09010=.C;
   END;
   ELSE IF S09009=2 THEN N8A1=3;
   ELSE IF S09009=. THEN N8A1=4;  /* MER 07/31/09 eliminated backward coding for missing S09009
*/


/** Note 9 -- H09028, H09029-H09031:  needed to see a specialist in last 12 months **/

   ARRAY NOTE9  H09029 H09031;

   N9MARK=0;
```

```
      N9NMISS=0;

   DO OVER NOTE9;
      IF NOTE9 NE . THEN N9NMISS+1;
      IF NOTE9 NOT IN  (., .N) THEN N9MARK+1;
   END;

   IF H09030 NE . THEN N9NMISS+1;
   IF H09030 NOT IN (.,0) THEN N9MARK+1;


   IF H09028 IN (1)  THEN DO;
      N9=1;
      IF H09029=.N THEN H09029=.;
   END;
   ELSE IF H09028 in (2,.) AND N9MARK>0 THEN DO;
      N9=2;
      H09028=1;
      IF H09029=.N THEN H09029=.;
   END;
   ELSE IF H09028 in (2) THEN DO;
      N9=3;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
      IF H09030=. THEN H09030=.N;
      ELSE H09030=.C;
   END;
   ELSE IF H09028=.  AND N9NMISS>0 AND N9MARK=0 THEN DO;
      N9=4;
      H09028=2;
      DO OVER NOTE9;
         IF NOTE9=. THEN NOTE9=.N;
         ELSE NOTE9=.C;
      END;
      IF H09030=. THEN H09030=.N;
      ELSE H09030=.C;
   END;
   ELSE IF H09028=.  AND N9NMISS=0 THEN N9=5;

   DROP N9NMISS N9MARK;


/** Note 10 -- H09030, H09031: saw a specialist in last 12 months **/

   IF H09030 IN (.N,.C) THEN N10=1;
   ELSE IF H09030 IN (1,2,3,4,5) AND H09031 IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N10=2;
   ELSE IF H09030 IN (1,2,3,4,5,.) AND H09031=.N THEN DO;
      H09030=0;
      H09031=.C;
      N10=3;
   END;
   ELSE IF H09030 = 0 THEN DO;
      IF H09031=. THEN H09031=.N;
      ELSE H09031=.C;
      N10=4;
   END;
   ELSE IF H09030=. THEN N10=5;


/** Note 10A1 -- S09B02, S09B03-S09B04: overall mental health **/

   ARRAY NOTE10A1  S09B03-S09B04;

   N10A1MARK=0;
   N10A1NMISS=0;

   DO OVER NOTE10A1;
      IF NOTE10A1 NE . THEN N10A1NMISS+1;
      IF NOTE10A1 NOT IN  (., .N) THEN N10A1MARK+1;
   END;

   IF S09B02 = 1 THEN DO;
```

```
      DO OVER NOTE10A1;
          IF NOTE10A1=.N THEN NOTE10A1=.;
      END;
      N10A1=1;
  END;
  ELSE IF S09B02 IN (2,.) AND (N10A1MARK>0) THEN DO;
      N10A1=2;
      S09B02=1;
  END;
  ELSE IF S09B02=2  AND (N10A1NMISS=0 OR (N10A1NMISS > 0 AND N10A1MARK = 0)) THEN DO;
      N10A1=3;
      DO OVER NOTE10A1;
          IF NOTE10A1 = . THEN NOTE10A1=.N;
          ELSE NOTE10A1 = .C;
      END;
  END;
  ELSE IF S09B02 IN (.) AND (N10A1NMISS > 0 AND N10A1MARK = 0) THEN DO;
      N10A1=4;
      S09B02=2;
      DO OVER NOTE10A1;
          IF NOTE10A1 = . THEN NOTE10A1=.N;
          ELSE NOTE10A1 = .C;
      END;
  END;
  ELSE IF S09B02 IN (.) AND N10A1NMISS=0 THEN N10A1=5;

  DROP N10A1NMISS N10A1MARK;


/** Note 11 -- H09032, H09033:  tried to get care, tests, or treatment from health plan**/

  IF H09032=1 AND H09033 IN (1,2,3,4,.) THEN N11=1;
  ELSE IF H09032 IN (1,.) AND H09033=.N THEN DO;
      H09032=2;
      H09033=.C;
      N11=2;
  END;
  ELSE IF H09032 IN (2,.) AND H09033 IN (1,2,3,4) THEN DO;
      H09032=1;
      N11=3;
  END;
  ELSE IF H09032=2 AND H09033 IN (.,.N) THEN DO;
      IF H09033=. THEN H09033=.N;
      ELSE H09033=.C;
      N11=4;
  END;
  ELSE IF H09032=.  AND H09033=.  THEN N11=5;


/** Note 11B -- H09034B, H09034:  look for info in written materials or on internet**/
  IF H09034B=1 AND H09034 IN (1,2,3,4,.) THEN N11B=1;
  ELSE IF H09034B IN (1,.) AND H09034=.N THEN DO;
      N11B=2;
      H09034B=2;
      H09034=.C;
  END;
  ELSE IF H09034B IN (2,.) AND H09034 IN (1,2,3,4) THEN DO;
      N11B=3;
      H09034B=1;
  END;
  ELSE IF H09034B=2 AND H09034 IN (.N,.) THEN DO;
      N11B=4;
      IF H09034=. THEN H09034=.N;
      ELSE H09034=.C;
  END;
  ELSE IF H09034B=. AND H09034=. THEN N11B=5;


/** Note 12 -- H09035, H09036:  tried to get cost of service/equipment from health plan**/

  IF H09035=1 AND H09036 IN (1,2,3,4,.) THEN N12=1;
  ELSE IF H09035 IN (1,.) AND H09036=.N THEN DO;
      H09035=2;
      H09036=.C;
```

```
      N12=2;
   END;
   ELSE IF H09035 IN (2,.) AND H09036 IN (1,2,3,4) THEN DO;
      H09035=1;
      N12=3;
   END;
   ELSE IF H09035=2 AND H09036 IN (.,.N) THEN DO;
      IF H09036=. THEN H09036=.N;
      ELSE H09036=.C;
      N12=4;
   END;
   ELSE IF H09035=.  AND H09036=.  THEN N12=5;


/** Note 13 -- H09037, H09038:  tried to get cost of prescription meds from health plan**/

   IF H09037=1 AND H09038 IN (1,2,3,4,.) THEN N13=1;
   ELSE IF H09037 IN (1,.) AND H09038=.N THEN DO;
      H09037=2;
      H09038=.C;
      N13=2;
   END;
   ELSE IF H09037 IN (2,.) AND H09038 IN (1,2,3,4) THEN DO;
      H09037=1;
      N13=3;
   END;
   ELSE IF H09037=2 AND H09038 IN (.,.N) THEN DO;
      IF H09038=. THEN H09038=.N;
      ELSE H09038=.C;
      N13=4;
   END;
   ELSE IF H09037=.  AND H09038=.  THEN N13=5;


/** Note 14 -- H09039, H09040-H09041: tried to use health plan's customer service  **/

   ARRAY NOTE14  H09040-H09041;

   N14MARK=0;
   N14NMISS=0;

   DO OVER NOTE14;
      IF NOTE14 NE . THEN N14NMISS+1;
      IF NOTE14 NOT IN  (., .N) THEN N14MARK+1;
   END;

   IF H09039 = 1 AND (N14MARK>0 OR N14NMISS=0) THEN DO;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
      N14=1;
   END;
   ELSE IF H09039 IN (1,.) AND (N14NMISS > 0 AND N14MARK = 0) THEN DO;
      N14=2;
      H09039=2;
      DO OVER NOTE14;
         IF NOTE14 = . THEN NOTE14=.N;
         ELSE NOTE14 = .C;
      END;
   END;
   ELSE IF H09039 IN (2,.) AND (N14MARK>0) THEN DO;
      N14=3;
      H09039=1;
      DO OVER NOTE14;
         IF NOTE14=.N THEN NOTE14=.;
      END;
   END;
   ELSE IF H09039=2  AND (N14NMISS=0 OR (N14NMISS > 0 AND N14MARK = 0)) THEN DO;
      N14=4;
      DO OVER NOTE14;
         IF NOTE14 = . THEN NOTE14=.N;
         ELSE NOTE14 = .C;
      END;
   END;
```

```
    ELSE IF H09039 IN (.) AND N14NMISS=0 THEN N14=5;

    DROP N14NMISS N14MARK;


/** Note 15 -- H09042, H09043:  received forms to fill out from health plan **/

    IF H09042=1 AND H09043 IN (1,2,3,4,.) THEN N15=1;
    ELSE IF H09042 IN (1,.) AND H09043=.N THEN DO;
       H09042=2;
       H09043=.C;
       N15=2;
    END;
    ELSE IF H09042 IN (2,.) AND H09043 IN (1,2,3,4) THEN DO;
       H09042=1;
       N15=3;
    END;
    ELSE IF H09042=2 AND H09043 IN (.,.N) THEN DO;
       IF H09043=. THEN H09043=.N;
       ELSE H09043=.C;
       N15=4;
    END;
    ELSE IF H09042=.  AND H09043=.  THEN N15=5;


/** Note 16 -- H09044, H09045-H09046: claims to health plan **/

    ARRAY NOTE16 H09045-H09046;
    N16MARK=0;
    N16NDK=0;

    DO OVER NOTE16;
       IF NOTE16 NOT IN (.N,.D,.) THEN N16MARK+1; /* At least one is marked */
       IF NOTE16 NOT IN (.,.D) THEN N16NDK+1; /* All are missing or blank or dnk */
    END;

    IF H09044=1 AND (N16MARK>0 OR N16NDK=0) THEN DO;
       N16=1;
       DO OVER NOTE16;
          IF NOTE16=.N THEN NOTE16=.;
       END;
    END;
    ELSE IF H09044 IN (1,.,.D) AND N16MARK=0 AND N16NDK>0 THEN DO;
       N16=2;
       H09044=2;
       DO OVER NOTE16;
          IF NOTE16=. THEN NOTE16=.N;
          ELSE NOTE16=.C;
       END;
    END;
    ELSE IF H09044 IN (2,.,.D) AND N16MARK>0
        THEN DO;
       H09044=1;
       N16=3;
       DO OVER NOTE16;
          IF NOTE16=.N THEN NOTE16=.;
       END;
    END;
    ELSE IF H09044 IN (2) AND N16MARK=0 THEN DO;
       N16=4;
       DO OVER NOTE16;
          IF NOTE16=. THEN NOTE16=.N;
          ELSE NOTE16=.C;
       END;
    END;
    ELSE IF H09044 IN (.D) AND N16NDK=0 THEN DO;
       N16=5;
       DO OVER NOTE16;
          IF NOTE16=. THEN NOTE16=.N;
          ELSE NOTE16=.C;
       END;
    END;
    ELSE IF H09044 IN (.) AND N16NDK=0 THEN N16=6;
```

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```
   DROP N16MARK N16NDK;


/** Note 17 -- smoking:  H09051, H09052-H09055  **/

  ARRAY NOTE17 H09053 H09054 H09055;

  IF H09051=1 and H09052 IN (3,4) THEN DO;  /* still smoke */
     N17=1;
  END;
  ELSE IF H09051=1 AND H09052 IN (2,.D) THEN DO;  /* quit */
     DO OVER NOTE17;
         IF NOTE17=. THEN NOTE17=.N;
         ELSE NOTE17=.C;
     END;
     N17=2;
  END;
  ELSE IF H09051=1 AND H09052 = . THEN DO;  /* don't know */
     N17=3;
  END;
  ELSE IF H09051 IN (2,.D,.) AND H09052 IN (3,4) THEN DO;
     H09051=1;

     N17=4;
  END;
  ELSE IF H09051 IN (2,.D) AND H09052 IN (2,.D, .) THEN DO; /*never smoke*/
     /* JMA March 25 2004,
        Updated because H09054 and H09055 have been added to the
        skip pattern */

     IF H09052 NE . THEN H09052 =.C;
     ELSE H09052=.N;

     DO OVER NOTE17;
         IF NOTE17=. THEN NOTE17=.N;
         ELSE NOTE17=.C;
     END;

     N17=5;
  END;
  ELSE IF H09051 IN ( .) THEN DO;
     IF (H09052 IN (2,.) AND
        (H09053 IN (2,3,4,5) OR H09054 IN (2,3,4,5) OR H09055 IN (2,3,4,5)))
     THEN DO;
        /* JMA March 25 2004,
           Updated because H09054 and H09055 have been added to the
           skip pattern */

        H09051=1;
        N17=6;
     END;
     ELSE IF H09052 IN (2,.) THEN DO; /*MRE/blank*/
             N17=7;

     END;
     ELSE IF H09052=.D THEN DO; /*MRE/blank*/
        /* JMA March 25 2004,
           Updated because H09054 and H09055 have been added to the
           skip pattern */

         DO OVER NOTE17;
           IF NOTE17=. THEN NOTE17=.N;
           ELSE NOTE17=.C;
         END;

        N17=8;
     END;
  END;


/** Note 18 -- advice from doctor on smoking:  H09053-H09055  **/

   IF H09053 EQ .N THEN DO;              /* jma Sep 19 2006 */
      IF H09054 IN (.,.N) THEN H09054 = .N;
```

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```
      ELSE H09054=.C;
      IF H09055 IN (.,.N) THEN H09055 = .N;
      ELSE H09055=.C;
      N18=1;
    END;
    ELSE IF H09053 EQ .C THEN DO;                /* jma fEB 19 2008 */
      N18=2;
    END;
    ELSE IF H09053 EQ 1 AND (H09054 =.N AND H09055=.N) THEN DO; /* jma May 10 2007 */
        H09054 = 1;
        H09055 = 1;
        N18=3;
    END;
    ELSE IF H09053 EQ 1 AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
        H09054 = 1;
        N18=4;
    END;
    ELSE IF H09053 EQ 1 AND (H09055=.N) THEN DO; /* jma May 10 2007 */
        H09055 = 1;
        N18=5;
    END;
    ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N AND H09055= .N) THEN DO; /* jma May 10 2007 */
        H09054 = .;
        H09055 = .;
        N18=6;
    END;
    ELSE IF H09053 IN (2,3,4,5,.) AND (H09054 =.N) THEN DO; /* jma May 10 2007 */
        H09054 = .;
        N18=7;
    END;
    ELSE IF H09053 IN (2,3,4,5,.) AND (H09055= .N) THEN DO; /* jma May 10 2007 */
        H09055 = .;
        N18=8;
    END;
    ELSE IF H09053 GE 1 AND (H09054 > H09053 AND H09055 > H09053) THEN DO; /* jma May 10 2007 */
        H09054 = H09053;
        H09055 = H09053;
        N18=9;
    END;
    ELSE IF H09053 GE 1 AND (H09054 > H09053) THEN DO; /* jma May 10 2007 */
        H09054 = H09053;
        N18=10;
    END;
    ELSE IF H09053 GE 1 AND (H09055 > H09053) THEN DO; /* jma May 10 2007 */
        H09055 = H09053;
        N18=11;
    END;
    ELSE  IF H09053 GE 1 AND ((H09054 <= H09053 or H09054 = . ) AND (H09055 <= H09053 or
H09055=.))
    THEN DO; /* jma Feb 19 2007 */
        N18=12;
    END;
    ELSE IF (H09053=. AND H09054 IN (1,2,3,4,5,.) AND H09055 IN (1,2,3,4,5,.))
    THEN DO; /* jma Feb 19 2007 */
        N18=13;
    END;


/** Note 19 - gender H09056, SEX, H09057--H09062,
             XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


  ARRAY fmaleval H09057 H09058 H09059 H09060 H09061 H09062
                 ;

  cntfmale=0;
  DO OVER fmaleval;              /* mammogram/pap smear/PREGNANT*/
    IF fmaleval>0 THEN cntfmale=cntfmale+1;
  END;
```

```
   IF cntfmale>0 THEN FMALE=1;
   ELSE FMALE = 0;


   IF H09056=. THEN DO;
      IF (SEX='F' AND FMALE) THEN DO;
         N19a=1;
         XSEXA=2;
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N19a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N19a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N19a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N19a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N19a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N19a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H09056=1) THEN DO;
      IF FMALE=0 THEN DO;
         N19a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N19a=9;
            XSEXA=2;
         END;
         ELSE DO;
            N19a=10;
            XSEXA=1;
         END;
      END;
   END;
   ELSE IF (H09056=2) THEN DO;
      IF FMALE THEN DO;
        N19a=11;
        XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N19a=12;
           XSEXA=1;
         END;
         ELSE DO;
            N19a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 19b - gender vs mammogram/paps/pregnancy */

   ARRAY NOTE19b H09057 H09058 H09059 H09060 H09061 H09062
                 ;
   IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
```

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```
        N19b=1;
        DO OVER NOTE19b;
           NOTE19b=.N;
        END;
     END;   /* valid skip */
     ELSE IF FMALE=1 THEN DO;
        N19b=2;
        DO OVER NOTE19b;
           IF NOTE19b=. THEN NOTE19b = .N;
           ELSE NOTE19b=.C;
        END;
     END;   /* inconsistent response */
  END;
  ELSE IF XSEXA=2 THEN  N19b=3; /* female */
  ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
     N19b=4;
     DO OVER NOTE19b;
        NOTE19b=.;
     END;
  END;


  DROP FMALE CNTFMALE;


/* Note 20- breast exam for female 40 or over  */

  IF XSEXA=1 THEN DO;  /* male */
     IF  (H09058=.C OR H09058=.N) AND (H09059=.C OR H09059=.N)
     THEN N20 = 1;
  END;
  ELSE IF XSEXA=2 THEN DO;
     IF H09058=2 THEN N20=2;          /* female 40 or over */
     ELSE IF H09058=1 THEN DO;   /* female < 40 */
        IF H09059 NE . THEN H09059=.C;
        ELSE H09059=.N;
        N20=3;
     END;
     ELSE IF H09058=. THEN DO;
        IF H09059 NE . THEN DO;
           H09058=2;
           N20=4;
        END;
        ELSE IF H09059=.  THEN DO;
           IF AGE<40 THEN DO;
              H09058 = 1;
              H09059=.N;
              N20=5;
           END;
           ELSE IF AGE >= 40 THEN DO;
              H09058=2;
              N20=6;
           END;
           ELSE IF AGE=. THEN N20=7;
        END;
     END;
  END;
  ELSE IF XSEXA=. THEN N20=8;



/* Note 21 - gender vs Pregnancy */


  IF XSEXA=1 THEN N21=1;          /* male    */
  ELSE IF XSEXA=2 THEN DO;        /* female   */
     IF H09060=1 THEN DO;         /* pregnant */
        IF H09061=1 THEN DO;
           N21=2;
           IF H09062=. THEN H09062 = .N;
           ELSE H09062=.C;
        END;
        ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
           N21=3;
```

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```
                        H09062=.;
                    END;
                    ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
                        N21=4;
                    END;
                    ELSE IF H09061 IN (3,.) THEN N21=5;
                END;
                ELSE IF H09060=2 THEN DO;
                    IF H09061=. THEN H09061 = .N;
                    ELSE H09061=.C;
                    N21=6;
                END;
                ELSE IF H09060=3 THEN DO;
                    N21=7;
                    IF H09061=. THEN H09061 = .N;
                    ELSE H09061=.C;
                    IF H09062=. THEN H09062=.N;
                    ELSE H09062=.C;
                END;
                ELSE IF H09060 IN (.) THEN DO;
                    IF H09061=1 THEN DO;
                        N21=8;
                        H09060=1;
                        IF H09062=. THEN H09062 = .N;
                        ELSE H09062=.C;
                    END;
                    ELSE IF H09061=2 AND H09062 IN (2) THEN DO;
                        N21=9;
                        H09060=1;
                        H09062=.;
                    END;
                    ELSE IF H09061=2 AND H09062 IN (4,3,1,.) THEN DO;
                        H09060=1;
                        N21=10;
                    END;
                    ELSE IF H09061=3 THEN DO;
                        H09060=1;
                        N21=11;
                    END;
                    ELSE IF H09061=. THEN DO;
                        N21=12;
                    END;
                END;
            END;
        ELSE IF XSEXA=. AND H09060 IN (.) THEN N21=13;



    DROP AGE SEX;


/** Note 22 -- H09065, H09066:  seen doctor 3 or more times for same condition **/

    IF H09065=1 THEN N22=1;
    ELSE IF H09065 IN (2,.) AND H09066 IN (1,2) THEN DO;
        H09065=1;
        N22=2;
    END;
    ELSE IF H09065=2 AND H09066 IN (.) THEN DO;
        H09066=.N;
        N22=3;
    END;
    ELSE IF H09065=.  AND H09066=.  THEN N22=4;


/** Note 23 -- H09067, H09068:  need or take medicine prescribed by a doctor **/

    IF H09067=1 THEN N23=1;
    ELSE IF H09067 IN (2,.) AND H09068 IN (1,2) THEN DO;
        H09067=1;
        N23=2;
    END;
    ELSE IF H09067=2 AND H09068 IN (.) THEN DO;
        H09068=.N;
```

```
      N23=3;
    END;
    ELSE IF H09067=.  AND H09068=.  THEN N23=4;


/** Note 24 -- H09071, H09071A-H09071E: Hispanic or Latino origin or descent **/

    /* JMA
    ****Multiple responses were given to this question so H09071 is being created
    ****from the multiple responses.;
    */


    IF H09071B=1 THEN DO;
       N24=1;
       H09071=2;
    END;
    ELSE IF H09071E=1 THEN DO;
       N24=2;
       H09071=5;
    END;
    ELSE IF H09071C=1 THEN DO;
       N24=3;
       H09071=3;
    END;
    ELSE IF H09071D=1 THEN DO;
       N24=4;
       H09071=4;
    END;
    ELSE IF H09071A=1 THEN DO;
       N24=5;
       H09071=1;
    END;
    ELSE IF H09071A IN (2,.) AND H09071B IN (2,.) AND H09071C IN (2,.) AND
            H09071D IN (2,.) AND H09071E IN (2,.) THEN DO;
       N24=6;
       H09071=.;

    END;


/** Note 24B1 -- S09Z01, S09Z15-S09Z17:  Spouse of a member of the uniformed
                                  Services currently deployed to a combat zone
 **/

    ARRAY NOTE24B1 S09Z15-S09Z17;
    N24B1NMISS=0;
    DO OVER NOTE24B1;
       IF NOTE24B1 NE . THEN N24B1NMISS+1;          /* check for all missing */
    END;

    IF S09Z01=1 THEN N24B1=1;
    ELSE IF S09Z01 IN (2,.) AND N24B1NMISS>0 THEN DO;
       S09Z01=1;
       N24B1=2;
    END;
    ELSE IF S09Z01=2 AND N24B1NMISS=0 THEN DO;
       N24B1=3;
       DO OVER NOTE24B1;
          IF NOTE24B1=. THEN NOTE24B1=.N;
          ELSE NOTE24B1=.C;
       END;
    END;
    ELSE IF S09Z01=. AND N24B1NMISS=0 THEN N24B1=4;

    DROP N24B1NMISS;


/** Note 24B2 -- S09Z15-S09Z17:  Information about recources available to spouses
                                  and families of deployed personnel
 **/

    ARRAY NOTE24B2 S09Z16-S09Z17;
    N24B2NMISS=0;
```

```
   DO OVER NOTE24B2;
       IF NOTE24B2 NE . THEN N24B2NMISS+1;            /* check for all missing */
   END;


   IF S09Z15 IN (.N,.C) AND S09Z16 IN (.N,.C) AND
       S09Z17 IN (.N,.C)
   THEN N24B2=1;
   ELSE IF S09Z15=1 THEN N24B2=2;
   ELSE IF S09Z15 IN (2,.) AND N24B2NMISS>0 THEN DO;
       S09Z15=1;
       N24B2=3;
   END;
   ELSE IF S09Z15=2 AND N24B2NMISS=0 THEN DO;
       N24B2=4;
       DO OVER NOTE24B2;
           IF NOTE24B2=. THEN NOTE24B2=.N;
           ELSE NOTE24B2=.C;
       END;
   END;
   ELSE IF S09Z15=. AND N24B2NMISS=0 THEN N24B2=5;

   DROP N24B2NMISS;



NOSURVEY:

/* missing values */

   ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
   MISS_TOT=0;
   DO OVER MISS;
       MISS = 0;
   END;
   ARRAY MISSARAY &VARLIST2.;

   DO OVER MISSARAY;
       IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
       ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
       ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
       ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
       ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
       ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
       ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
   END;
   DO OVER MISS;
       MISS_TOT=MISS_TOT + MISS;
   END;

*******************************************;

 OUTPUT;

RUN;


proc contents data=out.cschm09q;
run;
```

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

      FORMAT H09001    H09001_O YN.

             H09003    H09003_O HPLAN1_.
             H09004    H09004_O HPTIME.

             S09J01    S09J01_O
             S09J06    S09J06_O
             S09J08    S09J08_O
             S09J10    S09J10_O
                YN.

             S09J03    S09J03_O YNPOL6_.
             S09J04    S09J04_O YNPOL5_.
             S09J05    S09J05_O AMOUNT.

             H09005    H09005_O PLACE.

             H09006 H09006_O   H09009 H09009_O   H09019 H09019_O
                YN.

             H09007    H09007_O OFTEN2_.
             H09008    H09008_O TIME1_.

             H09010    H09010_O OFTEN3_.
             H09011    H09011_O TIME2_.
             H09012    H09012_O OFTEN4_.

             H09013    H09013_O OFTEN4_.
             H09014    H09014_O OFTEN8_.
             H09015    H09015_O YN.
             H09016    H09016_O YNDEF.
             H09017    H09017_O YNDEF.
             H09018    H09018_O RATE3_.

             H09020    H09020_O OFTEN10_.

             H09021-H09024   H09021_O--H09024_O OFTEN5_.

             H09025    H09025_O YN.
             H09026    H09026_O OFTEN8_.
             H09027    H09027_O RATE6_.

             S09009    S09009_O YN.
             S09010    S09010_O PROB1_.

             H09028    H09028_O YN.
             H09029    H09029_O OFTEN9_.
             H09030    H09030_O SPCLST.
             H09031    H09031_O RATE2_.

             S09B01 S09B01_O MNTLHLTH.
             S09B02 S09B02_O YN.
             S09B03 S09B03_O PROB1_.
             S09B04 S09B04_O RATE5_.

             H09032    H09032_O YN.
             H09033    H09033_O OFTEN11_.
             H09034B   H09034BO YN.
             H09034    H09034_O OFTEN12_.
             H09035    H09035_O YN.
             H09036    H09036_O OFTEN13_.
             H09037    H09037_O YN.
             H09038    H09038_O OFTEN14_.
             H09039    H09039_O YN.
             H09040    H09040_O OFTEN15_.
             H09041    H09041_O OFTEN15_.
             H09042    H09042_O YN.
```

```
        H09043    H09043_O OFTEN16_.
        H09044    H09044_O YNDNK.
        H09045    H09045_O OFTEN6_.
        H09046    H09046_O OFTEN6_.
        H09047    H09047_O RATE4_.

        H09048    H09048_O TIME5_.
        H09049    H09049_O YNBP_.

        H09050    H09050_O TIME7_.
        H09051    H09051_O YNDNK.
        H09052    H09052_O TIME8_.
        H09053    H09053_O OFTEN7_.
        H09054    H09054_O OFTEN7_.
        H09055    H09055_O OFTEN7_.

        S09D03    S09D03_O YNDNK.
        S09D02    S09D02_O TIME15_.

        H09056    H09056_O SEX.
        H09057    H09057_O TIME11_.

        H09058 H09058_O    H09064 H09064_O
           YN.

        H09059    H09059_O TIME12_.
        H09060    H09060_O YNPREG.
        H09061    H09061_O PREG1_.
        H09062    H09062_O PREG2_.
        H09063    H09063_O HEALTH.

        H09065    H09065_O YN.
        H09066    H09066_O YN.
        H09067    H09067_O YN.
        H09068    H09068_O YN.

        H09069F H09069FO
        H09069I H09069IO
        H09070  H09070_O
          TIME14_.

        SREDA     SREDA_O   EDUC.

        H09071              HISP.

        SRAGE     SRAGE_O   AGEGRP.

        H09072    H09072_O MEDA.
        H09073    H09073_O MEDB.
        H09074    H09074_O MEDSUPP.

        S09Z01    S09Z01_O YN.
        S09Z02    S09Z02_O STRESS.

        S09Z03 S09Z03_O   S09Z04 S09Z04_O S09Z06 S09Z06_O
        S09Z07 S09Z07_O   S09Z10 S09Z10_O S09Z11 S09Z11_O
        S09Z12 S09Z12_O   S09Z13 S09Z13_O S09Z14 S09Z14_O
           CONCERN.

        S09Z15    S09Z15_O YN.
        S09Z16    S09Z16_O HELPFUL.
        S09Z17    S09Z17_O PROB1_.

        S09J11    S09J11_O EMPSTAT.
        S09J12    S09J12_O GROSS2_.

        MISS_1    MISS_4-MISS_9 MISS_TOT 4.
          ;


    LABEL H09001_O='Are you the person listed on envelope'
          H09001 ='Are you the person listed on envelope'
          H09002AO='Health plan(s) covered: TRICARE Prime'
          H09002A ='Health plan(s) covered: TRICARE Prime'
```

```
H09002CO='Health plan(s) covered: TRICARE Ext/Stnd'
H09002C ='Health plan(s) covered: TRICARE Ext/Stnd'
H09002NO='Health plan(s) covered: TRICARE Plus'
H09002N ='Health plan(s) covered: TRICARE Plus'
H09002OO='Health plan(s) covered: TRICARE For Life'
H09002O ='Health plan(s) covered: TRICARE For Life'
H09002PO='Health plan(s) covered: TRICARE Supplmntl Ins'
H09002P ='Health plan(s) covered: TRICARE Supplmntl Ins'
H09002QO='Health plan(s) covered: TRICARE Reserve Select'
H09002Q ='Health plan(s) covered: TRICARE Reserve Select'
H09002FO='Health plan(s) covered: Medicare'
H09002F ='Health plan(s) covered: Medicare'
H09002GO='Health plan(s) covered: FEHBP'
H09002G ='Health plan(s) covered: FEHBP'
H09002HO='Health plan(s) covered: Medicaid'
H09002H ='Health plan(s) covered: Medicaid'
H09002IO='Health plan(s) covered: Civilian HMO'
H09002I ='Health plan(s) covered: Civilian HMO'
H09002JO='Health plan(s) covered: Other civilian'
H09002J ='Health plan(s) covered: Other civilian'
H09002KO='Health plan(s) covered: USFHP'
H09002K ='Health plan(s) covered: USFHP'
H09002MO='Health plan(s) covered: Veterans'
H09002M ='Health plan(s) covered: Veterans'
H09002RO='Health plan(s) covered: Gov Hlth ins-other cntry'
H09002R ='Health plan(s) covered: Gov Hlth ins-other cntry'
H09002LO='Health plan(s) covered: Not sure'
H09002L ='Health plan(s) covered: Not sure'
H09003_O='Which health plan did you use most'
H09003  ='Which health plan did you use most'
H09004_O='Yrs in a row with health plan'
H09004  ='Yrs in a row with health plan'
H09005_O='In lst yr:fclty use most for Health care'
H09005  ='In lst yr:fclty use most for Health care'
H09006_O='In lst yr:ill/injry/cond care right away'
H09006  ='In lst yr:ill/injry/cond care right away'
H09007_O='In lst yr:get urgnt care as soon as wntd'
H09007  ='In lst yr:get urgnt care as soon as wntd'
H09008_O='In lst yr:wait btwn try get care,see prv'
H09008  ='In lst yr:wait btwn try get care,see prv'
H09009_O='In lst yr:make appts non-urgnt hlth care'
H09009  ='In lst yr:make appts non-urgnt hlth care'
H09010_O='In lst yr:non-urg hlth cre appt whn wntd'
H09010  ='In lst yr:non-urg hlth cre appt whn wntd'
H09011_O='In lst yr:days btwn appt & see prvder'
H09011  ='In lst yr:days btwn appt & see prvder'
H09012_O='In lst yr:goto emrgncy rm for own care'
H09012  ='In lst yr:goto emrgncy rm for own care'
H09013_O='In lst yr:goto Dr office/clinic for care'
H09013  ='In lst yr:goto Dr office/clinic for care'
H09014  ='Lst yr: How often talk to doctor about illness prvntn'
H09014_O='Lst yr: How often talk to doctor about illness prvntn'
H09015  ='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
H09015_O='Lst yr: Did doctor tell you more than 1 choice for trtmnt'
H09016  ='Lst yr: Did talk to doctor about pros/cons of trtmnt'
H09016_O='Lst yr: Did talk to doctor about pros/cons of trtmnt'
H09017  ='Lst yr: Did doctor ask which trtmnt option best for you'
H09017_O='Lst yr: Did doctor ask which trtmnt option best for you'
H09018_O='Rating of all health care in lst yr'
H09018  ='Rating of all health care in lst yr'
H09019_O='Have one person think of as personal Dr'
H09019  ='Have one person think of as personal Dr'
H09020  ='Lst yr: How often visit prsnl doctor for care for yourself'
H09020_O='Lst yr: How often visit prsnl doctor for care for yourself'
H09021_O='In lst yr:how oftn Drs listen to you'
H09021  ='In lst yr:how oftn Drs listen to you'
H09022_O='In lst yr:how oftn Drs explain things'
H09022  ='In lst yr:how oftn Drs explain things'
H09023_O='In lst yr:how oftn Drs show respect'
H09023  ='In lst yr:how oftn Drs show respect'
H09024_O='In lst yr:how oftn Drs spend enough time'
H09024  ='In lst yr:how oftn Drs spend enough time'
H09025  ='Lst yr: Did get care from doctor other than prsnl doctor'
H09025_O='Lst yr: Did get care from doctor other than prsnl doctor'
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          H09026   ='Lst  yr:  How  often  prsnl  doctor  seemed  infrmd  of  care  from  other
doctors'
          H09026_O='Lst  yr:  How  often  prsnl  doctor  seemed  infrmd  of  care  from  other
doctors'
          H09027_O='Rating of your personal Dr'
          H09027  ='Rating of your personal Dr'
          H09028  ='Lst yr: Did make any appointments to see spclst'
          H09028_O='Lst yr: Did make any appointments to see spclst'
          H09029  ='Lst yr: How often easy to get appointments with spclsts'
          H09029_O='Lst yr: How often easy to get appointments with spclsts'
          H09030  ='Lst yr: How many spclsts seen'
          H09030_O='Lst yr: How many spclsts seen'
          H09031_O='Rating of specialist seen in lst yr'
          H09031  ='Rating of specialist seen in lst yr'
          H09032  ='Lst yr: Did try to get care, test, or trtmnt through health plan'
          H09032_O='Lst yr: Did try to get care, test, or trtmnt through health plan'
          H09033  ='Lst yr: How often easy to get care, test, or trtmnt'
          H09033_O='Lst yr: How often easy to get care, test, or trtmnt'
          H09034B ='Lst yr: Did look for info from written material/Internet'
          H09034BO='Lst yr: Did look for info from written material/Internet'
          H09034  ='Lst yr: How often written material/Internet provide needed info'
          H09034_O='Lst yr: How often written material/Internet provide needed info'
          H09035    ='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of
service/equipment'
          H09035_O='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of
service/equipment'
          H09036  ='Lst yr: How often able to find out cost of service/equipment'
          H09036_O='Lst yr: How often able to find out cost of service/equipment'
          H09037   ='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of  prescription
meds'
          H09037_O='Lst  yr:  Did  look  for  info  from  health  plan  on  cost  of  prescription
meds'
          H09038  ='Lst yr: How often able to find out cost of prescription meds'
          H09038_O='Lst yr: How often able to find out cost of prescription meds'
          H09039  ="Lst yr: Did try to get info/help from health plan's cstmr service"
          H09039_O="Lst yr: Did try to get info/help from health plan's cstmr service"
          H09040  ='Lst yr: How often did cstmr service give needed info/help'
          H09040_O='Lst yr: How often did cstmr service give needed info/help'
          H09041  ='Lst yr: How often did cstmr service treat with courtesy/respect'
          H09041_O='Lst yr: How often did cstmr service treat with courtesy/respect'
          H09042  ='Lst yr: Did health plan give any forms to fill out'
          H09042_O='Lst yr: Did health plan give any forms to fill out'
          H09043  ='Lst yr: How often were forms easy to fill out'
          H09043_O='Lst yr: How often were forms easy to fill out'
          H09044_O='In lst yr:send in any claims'
          H09044  ='In lst yr:send in any claims'
          H09045  ='Lst yr: How often did health plan handle claims quickly'
          H09045_O='Lst yr: How often did health plan handle claims quickly'
          H09046_O='In lst yr:how oftn handle claims correctly'
          H09046  ='In lst yr:how oftn handle claims correctly'
          H09047  ='Rating of all experience with hlth plan'
          H09047_O='Rating of all experience with hlth plan'
          H09048_O='Blood pressure: when lst reading'
          H09048  ='Blood pressure: when lst reading'
          H09049_O='Blood pressure: know if too high or not'
          H09049  ='Blood pressure: know if too high or not'
          H09050_O='When did you lst have a flu shot'
          H09050  ='When did you lst have a flu shot'
          H09051  ='Smoked at least 100 cigarettes in life'
          H09051_O='Smoked at least 100 cigarettes in life'
          H09052  ='Smoke everyday, some days or not at all'
          H09052_O='Smoke everyday, some days or not at all'
          H09053_O='Lst yr: # visits advised to quit smoking'
          H09053  ='Lst yr: # visits advised to quit smoking'
          H09054  ='# visits recom medic assist quit smoking'
          H09054_O='# visits recom medic assist quit smoking'
          H09055  ='# vist discu meth/strag asst quit smokng'
          H09055_O='# vist discu meth/strag asst quit smokng'
          H09056_O='Are you male or female'
          H09056  ='Are you male or female'
          H09057_O='Lst have a Pap smear test'
          H09057  ='Lst have a Pap smear test'
          H09058_O='Are you under age 40'
          H09058  ='Are you under age 40'
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H09059_O='Lst time: breasts checked mammography'
H09059  ='Lst time: breasts checked mammography'
H09060_O='Been pregnant in lst yr or pregnant now'
H09060  ='Been pregnant in lst yr or pregnant now'
H09061_O='In what trimester is your pregnancy'
H09061  ='In what trimester is your pregnancy'
H09062_O='Trimester first received prenatal care'
H09062  ='Trimester first received prenatal care'
H09063_O='In gnrl, how would you rate ovrall hlth'
H09063  ='In gnrl, how would you rate ovrall hlth'
H09064_O='Impairment/Hlth prblm limit activities'
H09064  ='Impairment/Hlth prblm limit activities'
H09065  ='Lst yr: Have seen doctor 3 or more times for same condition'
H09065_O='Lst yr: Have seen doctor 3 or more times for same condition'
H09066  ='Has condition lasted for at least 3 months'
H09066_O='Has condition lasted for at least 3 months'
H09067  ='Need to take medicine prescribed by a doctor'
H09067_O='Need to take medicine prescribed by a doctor'
H09068  ='Medicine to treat condition that has lasted for at least 3 months'
H09068_O='Medicine to treat condition that has lasted for at least 3 months'
H09069FO='Height without shoes (feet)'
H09069F ='Height without shoes (feet)'
H09069IO='Height without shoes (inches)'
H09069I ='Height without shoes (inches)'
H09070_O='Weight without shoes'
H09070  ='Weight without shoes'
SREDA_O ='Highest grade completed'
SREDA   ='Highest grade completed'
H09071  ='Are you Spanish/Hispanic/Latino'
H09071AO='Not Spanish/Hispanic/Latino'
H09071A ='Not Spanish/Hispanic/Latino'
H09071BO='Mexican, Mexican American, Chicano'
H09071B ='Mexican, Mexican American, Chicano'
H09071CO='Puerto Rican'
H09071C ='Puerto Rican'
H09071DO='Cuban'
H09071D ='Cuban'
H09071EO='Other Spanish, Hispanic, or Latino'
H09071E ='Other Spanish, Hispanic, or Latino'
SRRACEAO='Race: White'
SRRACEA ='Race: White'
SRRACEBO='Race: Black or African American'
SRRACEB ='Race: Black or African American'
SRRACECO='Race: American Indian or Alaska Native'
SRRACEC ='Race: American Indian or Alaska Native'
SRRACEDO='Race: Asian'
SRRACED ='Race: Asian'
SRRACEEO='Race: Native Hawaiian/other Pacific Isl.'
SRRACEE ='Race: Native Hawaiian/other Pacific Isl.'
SRAGE_O ='What is your age now'
SRAGE   ='What is your age now'
H09072  ='Currently Covered Medicare Part A'
H09072_O='Currently Covered Medicare Part A'
H09073  ='Currently Covered Medicare Part B'
H09073_O='Currently Covered Medicare Part B'
H09074  ='Currently Covered Medicare Supplemental'
H09074_O='Currently Covered Medicare Supplemental'

S09J01_O='Can obtain civilian hlth ins for self'
S09J01  ='Can obtain civilian hlth ins for self'
S09J02AO='Obtain civ cvrg: my current employer'
S09J02A ='Obtain civ cvrg: my current employer'
S09J02BO='Obtain civ cvrg: prev-emplyr COBRA '
S09J02B ='Obtain civ cvrg: prev-emplyr COBRA '
S09J02CO='Obtain civ cvrg: prev-emplyr retirement'
S09J02C ='Obtain civ cvrg: prev-emplyr retirement'
S09J02DO='Obtain civ cvrg: family mem employer'
S09J02D ='Obtain civ cvrg: family mem employer'
S09J02EO='Obtain civ cvrg: fam mem prv-employer COBRA'
S09J02E ='Obtain civ cvrg: fam mem prv-employer COBRA'
S09J02FO='Obtain civ cvrg: fam mem retirement'
S09J02F ='Obtain civ cvrg: fam mem retirement'
S09J02GO='Obtain civ cvrg: another organization'
S09J02G ='Obtain civ cvrg: another organization'
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S09J02HO='Obtain civ cvrg: Government program'
S09J02H ='Obtain civ cvrg: Government program'
S09J02IO="Obtain civ cvrg: don't know"
S09J02I ="Obtain civ cvrg: don't know"
S09J03_O="Are you/fam covered by a civilian policy"
S09J03  ="Are you/fam covered by a civilian policy"
S09J04_O="Pay all of part of civilian insrnc premimum"
S09J04  ="Pay all of part of civilian insrnc premimum"
S09J05_O="How much per mnth you/fam pay for coverage"
S09J05  ="How much per mnth you/fam pay for coverage"
S09J06_O="Used civilian coverage in past year"
S09J06  ="Used civilian coverage in past year"
S09J07AO='Not used civ cvrg: Not available'
S09J07A ='Not used civ cvrg: Not available'
S09J07BO='Not used civ cvrg: Better choice of TRICARE drs'
S09J07B ='Not used civ cvrg: Better choice of TRICARE drs'
S09J07CO="Not used civ cvrg: Don't want to pay premium"
S09J07C ="Not used civ cvrg: Don't want to pay premium"
S09J07DO='Not used civ cvrg: TRICARE Better customer service'
S09J07D ='Not used civ cvrg: TRICARE Better customer service'
S09J07EO='Not used civ cvrg: Benefits are poor'
S09J07E ='Not used civ cvrg: Benefits are poor'
S09J07FO='Not used civ cvrg: Personal Dr not available'
S09J07F ='Not used civ cvrg: Personal Dr not available'
S09J07GO='Not used civ cvrg: Always want military hlth care'
S09J07G ='Not used civ cvrg: Always want military hlth care'
S09J07HO='Not used civ cvrg: TRICARE costs less'
S09J07H ='Not used civ cvrg: TRICARE costs less'
S09J07IO="Not used civ cvrg: Prefer military drs"
S09J07I ="Not used civ cvrg: Prefer military drs"
S09J07JO="Not used civ cvrg: Prefer military hospitals"
S09J07J ="Not used civ cvrg: Prefer military hospitals"
S09J07KO="Not used civ cvrg: Have not needed health care"
S09J07K ="Not used civ cvrg: Have not needed health care"
S09J07LO="Not used civ cvrg: Another reason"
S09J07L ="Not used civ cvrg: Another reason"
S09J07MO="Not used civ cvrg: Employer bonus"
S09J07M ="Not used civ cvrg: Employer bonus"
S09J07NO="Not used civ cvrg: Family member employer bonus"
S09J07N ="Not used civ cvrg: Family member employer bonus"
S09J08_O="Used TRICARE for non-prscrp drug hlth care"
S09J08  ="Used TRICARE for non-prscrp drug hlth care"
S09J09AO='Not used TRICARE: Better choice of civ drs'
S09J09A ='Not used TRICARE: Better choice of civ drs'
S09J09BO="Not used TRICARE: Don't want to pay premium"
S09J09B ="Not used TRICARE: Don't want to pay premium"
S09J09CO='Not used TRICARE: Better civ customer service'
S09J09C ='Not used TRICARE: Better civ customer service'
S09J09DO='Not used TRICARE: Personal Dr not available'
S09J09D ='Not used TRICARE: Personal Dr not available'
S09J09EO='Not used TRICARE: Benefits are poor'
S09J09E ='Not used TRICARE: Benefits are poor'
S09J09FO='Not used TRICARE: easier to get civ care'
S09J09F ='Not used TRICARE: easier to get civ care'
S09J09GO='Not used TRICARE: civ plan costs less'
S09J09G ='Not used TRICARE: civ plan costs less'
S09J09HO='Not used TRICARE: No mil fclty near me'
S09J09H ='Not used TRICARE: No mil fclty near me'
S09J09IO="Not used TRICARE: Prefer civilian drs"
S09J09I ="Not used TRICARE: Prefer civilian drs"
S09J09JO="Not used TRICARE: Prefer civilian hospitals"
S09J09J ="Not used TRICARE: Prefer civilian hospitals"
S09J09KO="Not used TRICARE: Have not needed health care"
S09J09K ="Not used TRICARE: Have not needed health care"
S09J09LO="Not used TRICARE: Another reason"
S09J09L ="Not used TRICARE: Another reason"
S09J10_O="Dropped civ coverage in past year"
S09J10  ="Dropped civ coverage in past year"
S09J11_O="Current employment"
S09J11  ="Current employment"
S09J12_O="Family gross income"
S09J12  ="Family gross income"

S09009_O='Same prsnl doctor/nurse before this hlth plan'
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S09009  ='Same prsnl doctor/nurse before this hlth plan'
S09010_O='Prblm getting prsnl doctor/nurse you are happy with'
S09010  ='Prblm getting prsnl doctor/nurse you are happy with'

S09B01_O='Self rate of overall mental/emotional health'
S09B01  ='Self rate of overall mental/emotional health'
S09B02_O='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B02  ='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B03_O='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B03  ='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B04_O='Lst yr: Rate of treatmnt/cnslng received'
S09B04  ='Lst yr: Rate of treatmnt/cnslng received'

S09D02_O='How often currently use smokeless tobacco products'
S09D02  ='How often currently use smokeless tobacco products'
S09D03_O='Do you use tobacco products other than cigarettes'
S09D03  ='Do you use tobacco products other than cigarettes'

S09Z02  ="Rate of level of stress in prsnl life"
S09Z02_O="Rate of level of stress in prsnl life"
S09Z03  ="Extent of concern for child care arrangmnts"
S09Z03_O="Extent of concern for child care arrangmnts"
S09Z04  ="Extent of concern for child's education"
S09Z04_O="Extent of concern for child's education"
S09Z06  ="Extnt cncrn-communicating with spouse"
S09Z06_O="Extnt cncrn-communicating with spouse"
S09Z07  ="Extnt cncrn-managing household expenses"
S09Z07_O="Extnt cncrn-managing household expenses"
S09Z10  ="Extnt cncrn-marital problems"
S09Z10_O="Extnt cncrn-marital problems"
S09Z11  ="Extnt cncrn-personal health problems"
S09Z11_O="Extnt cncrn-personal health problems"
S09Z12  ="Extnt cncrn-family member health problems"
S09Z12_O="Extnt cncrn-family member health problems"
S09Z13  ="Extnt cncrn-job/education demands"
S09Z13_O="Extnt cncrn-job/education demands"
S09Z14  ="Extnt cncrn-mjr fincl hardship/bankruptcy"
S09Z14_O="Extnt cncrn-mjr fincl hardship/bankruptcy"
S09Z01  ="Spouse deployed to a combat zone"
S09Z01_O="Spouse deployed to a combat zone"
S09Z15  ="Sought rsrcs avlbl for dplyd prsnnl fmly"
S09Z15_O="Sought rsrcs avlbl for dplyd prsnnl fmly"
S09Z16  ="How hlpfl info-coping with spous dplymnt"
S09Z16_O="How hlpfl info-coping with spous dplymnt"
S09Z17  ="Problem finding information"
S09Z17_O="Problem finding information"


N1   = "Coding Scheme Note 1"
N1A1 = "Coding Scheme Note 1A1"
N1A2 = "Coding Scheme Note 1A2"
N1A3 = "Coding Scheme Note 1A3"
N1A4 = "Coding Scheme Note 1A4"
N1A5 = "Coding Scheme Note 1A5"
N2   = "Coding Scheme Note 2"
N3   = "Coding Scheme Note 3"
N4   = "Coding Scheme Note 4"
N5   = "Coding Scheme Note 5"
N6   = "Coding Scheme Note 6"
N7   = "Coding Scheme Note 7"
N8   = "Coding Scheme Note 8"
N8A1 = "Coding Scheme Note 8A1"
N9   = "Coding Scheme Note 9"
N10  = "Coding Scheme Note 10"
N10A1= "Coding Scheme Note 10A1"
N11  = "Coding Scheme Note 11"
N11B = "Coding Scheme Note 11B"
N12  = "Coding Scheme Note 12"
N13  = "Coding Scheme Note 13"
N14  = "Coding Scheme Note 14"
N15  = "Coding Scheme Note 15"
N16  = "Coding Scheme Note 16"
N17  = "Coding Scheme Note 17"
N18  = "Coding Scheme Note 18"
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     N19A = "Coding Scheme Note 19A"
     N19B = "Coding Scheme Note 19B"
     N20  = "Coding Scheme Note 20"
     N21  = "Coding Scheme Note 21"
     N22  = "Coding Scheme Note 22"
     N23  = "Coding Scheme Note 23"
     N24  = "Coding Scheme Note 24"
     N24B1= "Coding Scheme Note 24B1"
     N24B2= "Coding Scheme Note 24B2"



     MISS_1 = "Count of: Violates Skip Pattern"
     MISS_4 = "Count of: Incomplete grid error"
     MISS_5 = "Count of: Scalable reponse of Don't know"
     MISS_6 = "Count of: Not applicable - valid skip"
     MISS_7 = "Count of: Out-of-range error"
     MISS_8 = "Count of: Multiple response error"
     MISS_9 = "Count of: No response - invalid skip"
     MISS_TOT = "Total number of missing responses"
     XSEXA = "Male or Female  - R"
 ;
```

```
****************************************************************************;
*  Program:  cschm09qV3.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.sas7bdat - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  cschm09qV3.sas7bdat - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*           10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*            5/09/2002 - Change to logic in TFL supplement
*            3/17/2003 - Updated Variables names for Q1 2003
*            4/11/2003 - Added note 19a to accomodate Q1 2003 error where
*                        an option on most of the questionnaires was omitted for
*                        H03062
*            3/28/2008 - Updated Variable names for Q2 FY 2008
*           12/16/2008 - Updated Variable names for Q1 FY 2009
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  cschm09qV3.fmt
*
****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN      v9 "..\..\DATA\AFINAL";
LIBNAME OUT     v9 "..\..\DATA\AFINAL";

%LET INDATA=MERGESYN;
%LET OUTDATA=cschm09qV3;
%LET PERIOD=October, 2007 to September, 2008;

/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H09001A  H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA
 H09002KA H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

 H09003A H09004A H09005A H09006A H09007A H09008A H09009A H09010A H09011A
 H09012A H09013A H09014A H09015A H09016A H09017A H09018A H09019A H09020A
 H09021A H09022A H09023A H09024A H09025A H09026A H09027A H09028A H09029A
 H09030A H09031A H09032A H09033A H09034A H09035A H09036A H09037A H09038A

 S09B01A  S09B02A  S09B03A  S09B04A

 S09D01A  S09D02A  S09D03A  S09D04A

 S09N11A

 H09039A H09040A H09041A H09042A H09043A H09044A H09045A H09046A H09047A H09048A

 H09049A H09050A H09051A H09052A H09053A H09054A H09055A H09056A H09057A H09058A

 H09059A H09060A H09061A H09063A H09064A H09065A H09066A H09067A

 H09068FA H09068IA H09069A H09070AA H09070BA H09070CA H09070DA H09070EA
 SRRACEAA SRRACEBA SRRACECA SRRACEDA SRRACEEA SRAGEA SREDAA
 ;

/*  _O variables are the original values from the survey response */
```

```
%Let varlist2 =
 H09001A_O H09002AAO H09002CAO H09002FAO H09002GAO H09002HAO H09002IAO H09002JAO
 H09002KAO H09002LAO H09002MAO H09002NAO H09002OAO H09002PAO H09002QAO H09002RAO

 H09003A_O H09004A_O H09005A_O H09006A_O H09007A_O H09008A_O H09009A_O H09010A_O
 H09011A_O H09012A_O H09013A_O H09014A_O H09015A_O H09016A_O H09017A_O H09018A_O
 H09019A_O H09020A_O H09021A_O H09022A_O H09023A_O H09024A_O H09025A_O H09026A_O
 H09027A_O H09028A_O H09029A_O H09030A_O H09031A_O H09032A_O H09033A_O H09034A_O
 H09035A_O H09036A_O H09037A_O H09038A_O

 S09B01A_O S09B02A_O S09B03A_O S09B04A_O

 S09D01A_O S09D02A_O S09D03A_O S09D04A_O

 S09N11A_O

 H09039A_O H09040A_O H09041A_O H09042A_O H09043A_O H09044A_O H09045A_O H09046A_O
 H09047A_O H09048A_O H09049A_O H09050A_O H09051A_O H09052A_O H09053A_O H09054A_O
 H09055A_O H09056A_O H09057A_O H09058A_O H09059A_O H09060A_O H09061A_O H09063A_O
 H09064A_O H09065A_O H09066A_O H09067A_O

 H09068FAO H09068IAO H09069A_O H09070AAO H09070BAO H09070CAO H09070DAO H09070EAO
 SRRACEAAO SRRACEBAO SRRACECAO SRRACEDAO SRRACEEAO SRAGEA_O SREDAA_O
 ;

TITLE  "DoD 2009 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";



DATA MERGESYN;

   SET IN.MERGESYN(RENAME=(H09069A  = H09069CHA)
                 DROP=
                 H09001   H09002A  H09002C  H09002N  H09002O  H09002P  H09002Q  H09002F  H09002G
H09002H
                 H09002I  H09002J  H09002K  H09002M  H09002R  H09002L  H09003   H09004   H09005   H09006
                 H09007   H09008   H09009   H09010   H09011   H09012   H09013   H09014   H09015   H09016
                 H09017   H09018   H09019   H09020   H09021   H09022   H09023   H09024   H09025   H09026
                 H09027   H09028   H09029   H09030   H09031
                 S09B01   S09B02   S09B03   S09B04   H09032   H09033   H09034   H09035   H09036   H09037
                 H09038   H09039   H09040   H09041   H09042   H09043   H09044   H09045   H09046   H09047
                 H09048   H09049   H09050   H09051   H09052   H09053   H09054   H09055
                 S09D01   S09D02   S09D03   S09D04
                 H09056   H09057   H09058   H09059   H09060   H09061   H09062   H09063   H09064   H09065
                 H09066   H09067   H09068
                 H09069F  H09069I  H09070
                 SREDA    H09071A  H09071B  H09071C  H09071D  H09071E
                 SRACEA   SRACEB   SRACEC   SRACED   SRACEE  SRAGE
                 H09072   H09073   H09074   S09N11
                 H09069FN H09069IN H09070N
                  );


*********************************************************************;
* Code added by Jacqueline Agufa 09/15/2004 to fix name of race variable;
*********************************************************************;

   RENAME SRACEAA = SRRACEAA;
   RENAME SRACEBA = SRRACEBA;
   RENAME SRACECA = SRRACECA;
   RENAME SRACEDA = SRRACEDA;
   RENAME SRACEEA = SRRACEEA;

   **** update variables with both filled items and check boxes
   **** Per Eric Schone;


   IF H09068FA LT 1     THEN H09068FA=H09068FNA;
   IF H09068IA IN (-9,.) THEN H09068IA=H09068INA;


   H09069A= COMPRESS(H09069CHA,' ')*1;
```

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```
   DROP H09069CHA;


   IF H09069A=0   AND H09069NA=-9     THEN H09069A =H09069NA;
   IF H09069A<100 AND H09069NA NE -9  THEN H09069A =H09069NA;


   *** Correct odd height and weights Per Eric Schone;

   IF H09068FA NOT IN (-9,.) THEN DO;
     IF H09068FA < 2 OR
        H09068FA > 8
     THEN H09068FA= -7;
   END;

   IF 0 <= H09069A < 40 OR
     H09069A > 500
   THEN H09069A = -7;

   IF VERSION=3 THEN OUTPUT MERGESYN;

RUN;


DATA OUT.cschm09qV3;

   LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
   INFORMAT &VARLIST2. 4.;
   %INCLUDE "cschm09qV3.FMT";


/* label and format statements for original variables */


   SET MERGESYN;



   *****************************************************************;
   **** Recodes for invalid responses:****************************;
   *****************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 2009 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                            */

   SEX=PNSEXCD;
   AGE=INPUT(DAGEQY,8.);

   ARRAY RECODE(*) &VARLIST1;
   ARRAY   ORIG(*) &VARLIST2;

   DO I = 1 to DIM(ORIG);
       ORIG(I) = RECODE(I);
       IF ORIG(I) < 0 THEN DO;
               IF ORIG(I)= -9 THEN RECODE(I)=.;
           ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
           ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
           ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
           ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
           ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
           ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
           ELSE RECODE(I)=RECODE(I);
       END;
   END;
   DROP I;
```

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```
/* recode selected responses to be 1=marked, 2=unmarked */

  ARRAY   MARKED(*)
          H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA H09002KA
          H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

          H09070AA H09070BA H09070CA H09070DA H09070EA

          SRRACEAA SRRACEBA SRRACECA SRRACEDA SRRACEEA
              ;


  ARRAY INFORMAT(*)
          H09002AAO H09002CAO H09002FAO H09002GAO H09002HAO H09002IAO
          H09002JAO H09002KAO H09002LAO H09002MAO H09002NAO H09002OAO
          H09002PAO H09002QAO H09002RAO

          H09070AAO H09070BAO H09070CAO H09070DAO H09070EAO

          SRRACEAAO SRRACEBAO SRRACECAO SRRACEDAO SRRACEEAO

              ;


  DO J=1 TO DIM(INFORMAT);
     IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
     ELSE MARKED(J)=2;
  END;
  DROP J;

  FORMAT
          H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA H09002KA
          H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

          H09070AA H09070BA H09070CA H09070DA H09070EA

          SRRACEAA SRRACEBA SRRACECA SRRACEDA SRRACEEA
        MARKED.;


**********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

  IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;

/** Note 1 -- H09006A, H09007A health plan usage  **/

  IF H09006A > 0 OR H09006A =.D THEN N1=1;
  ELSE IF H09006A=.N  THEN DO;
     IF H09007A NOT=. THEN DO;
        N1=2;
        H09007A=.C;
     END;
     ELSE DO;
        N1=3;
        H09007A=.N;
     END;
  END;
  ELSE IF H09006A=.   THEN N1=4;


/** Note 2 -- H09008A H09009A H09010A H09011A:  Personal doctor or nurse **/

  IF H09008A IN (1,.) AND H09009A = .N THEN DO;
     H09008A = 2;
     H09009A =.C;
     IF H09010A=. THEN H09010A=.N;
     ELSE H09010A=.C;
     N2=1;
  END;
  ELSE IF H09008A IN (1) AND H09009A NE .N  THEN DO;
```

```
   IF H09010A IN (1) AND H09011A IN (1,2,3) THEN DO;
      H09011A=.C;
      N2=2;
   END;
   ELSE IF H09010A IN (.) AND H09011A IN (1,2,3) THEN DO;
      H09010A=2;
      N2=3;
   END;
   ELSE IF H09010A IN (1) AND H09011A IN (.) THEN DO;
      H09011A=.N;
      N2=4;
   END;
   ELSE IF H09010A IN (2) THEN DO;
      N2=5;
   END;
   ELSE IF H09010A IN (.) AND H09011A IN (.) THEN DO;
      N2=6;
   END;
END;
ELSE IF H09008A IN (2,.) THEN DO;
   IF H09009A NOT IN (.N, .) AND H09010A IN (1) AND H09011A IN (1,2,3)
   THEN DO;
      H09008A=1;
      H09011A=.C;
      N2=7;
   END;
   ELSE IF H09009A NOT IN (.N, .) AND H09010A IN (.) AND H09011A IN (1,2,3)
   THEN DO;
      H09008A=1;
      N2=8;
   END;
   ELSE IF H09009A NOT IN (.N, .) AND H09010A IN (.) AND H09011A IN (.)
   THEN DO;
      H09008A=1;
      N2=9;
   END;
   ELSE IF H09008A=2 AND H09009A IN (.) AND H09010A IN (1) AND H09011A IN (1,2,3)
   THEN DO;
      H09009A=.N;
      H09010A=.C;
      N2=10;
   END;
   ELSE IF H09008A = 2 AND H09009A IN (.N)
   THEN DO;
      H09009A=.C;
      IF H09010A=. THEN H09010A=.N;
      ELSE H09010A=.C;
      N2=11;
   END;
   ELSE IF H09010A IN (1) AND H09011A = .
   THEN DO;
      H09008A=1;
      H09011A=.N;
      N2=12;
   END;
   ELSE IF H09010A IN (2)
   THEN DO;
      H09008A=1;
      N2=13;
   END;
   ELSE IF H09008A=2 AND H09009A In (.) AND H09010A= . THEN DO;
      H09009A=.N;
      H09010A=.N;
      N2=14;
   END;
   ELSE IF H09008A=. AND H09009A=. AND H09010A=1 AND H09011A IN (1,2,3)
   THEN DO;
      H09008A=1;
      H09011A=.C;
      N2=15;
   END;
   ELSE IF H09008A=. AND H09009A=. AND H09010A=. THEN DO;
      N2=16;
   END;
```

```
    END;




/** Note 3 -- H09012A, H09013A:  needed to see a specialist in last 12 months **/

  IF H09012A=1 AND H09013A IN (1,2,3,.) THEN N3=1;
  ELSE IF H09012A IN (1,.) AND H09013A=.N THEN DO;
     H09012A=2;
     H09013A=.C;
     N3=2;
  END;
  ELSE IF H09012A IN (2,.) AND H09013A IN (1,2,3) THEN DO;
     H09012A=1;
     N3=3;
  END;
  ELSE IF H09012A=2 AND H09013A IN (.,.N) THEN DO;
     IF H09013A=. THEN H09013A=.N;
     ELSE H09013A=.C;
     N3=4;
  END;
  ELSE IF H09012A=.  AND H09013A=.  THEN N3=5;




/** Note 4 -- H09014A, H09015A: saw a specialist in last 12 months **/

  IF H09014A=1 AND H09015A IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N4=1;
  ELSE IF H09014A IN (1,.) AND H09015A=.N THEN DO;
     H09014A=2;
     H09015A=.C;
     N4=2;
  END;
  ELSE IF H09014A IN (2,.) AND H09015A IN (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
     H09014A=1;
     N4=3;
  END;
  ELSE IF H09014A=2 AND H09015A IN (.,.N) THEN DO;
     IF H09015A=. THEN H09015A=.N;
     ELSE H09015A=.C;
     N4=4;
  END;
  ELSE IF H09014A=.  AND H09015A=.  THEN N4=5;





/** Note 5 -- called a doctor's office:  H09016A, H09017A **/

  IF H09016A=1 AND H09017A IN (1,2,3,4,.) THEN N5=1;
  ELSE IF H09016A IN (1,.) AND H09017A=.N THEN DO;
     H09016A=2;
     H09017A=.C;
     N5=2;
  END;
  ELSE IF H09016A IN (2,.) AND H09017A IN (1,2,3,4) THEN DO;
     H09016A=1;
     N5=3;
  END;
  ELSE IF H09016A=2 AND H09017A IN (.,.N) THEN DO;
     IF H09017A=. THEN H09017A=.N;
     ELSE H09017A=.C;
     N5=4;
  END;
  ELSE IF H09016A=.  AND H09017A=.  THEN N5=5;


/** Note 6 -- H09018A,H09019A,H09020A:  illness or injury **/

  ARRAY NOTE6 H09019A H09020A;
  N6MARK=0;
  N6NMISS=0;
  N6NN=0;
```

```
    DO OVER NOTE6;
        IF NOTE6 NE . THEN N6NMISS+1;
        IF NOTE6 NOT IN (.N,.) THEN N6MARK+1;
        IF NOTE6 EQ .N THEN N6NN+1;
    END;


    IF H09018A=1 AND N6NMISS=0 THEN DO;
        N6=1;
    END;
    ELSE IF H09018A IN (1,.) AND N6NMISS>0 AND N6MARK=0 THEN DO;
        H09018A=2;
        N6=2;
        DO OVER NOTE6
            IF NOTE6=. THEN NOTE6=.N;
            ELSE NOTE6=.C;
        END;
    END;
    ELSE IF H09018A=1 AND N6MARK=1 AND N6NN=1 THEN  DO;
        DO OVER NOTE6;
            IF NOTE6=.N THEN NOTE6=.;
        END;
        N6=3;
    END;
    ELSE IF H09018A=1 AND N6MARK>0 THEN DO;
        N6=4;
    END;
    ELSE IF H09018A=2 AND N6MARK=1 AND N6NN=1  THEN  DO;
        H09019A=.C;
        H09020A=.C;
        N6=5;
    END;
    ELSE IF H09018A IN (2,.) AND N6MARK>0 THEN DO;
        H09018A=1;
        N6=6;
        DO OVER NOTE6;
            IF NOTE6=.N THEN NOTE6=.;
        END;
    END;
    ELSE IF H09018A=2 AND (N6NMISS=0 OR (N6NMISS>0 AND N6MARK=0)) THEN DO;
        N6=7;
        DO OVER NOTE6;
            IF NOTE6=. THEN NOTE6=.N;
            ELSE NOTE6=.C;
        END;
    END;
    ELSE IF H09018A=.  AND N6NMISS=0 THEN N6=8;


    DROP N6NMISS N6MARK N6NN;


/** Note 7 -- H09021A,H09022A,H09023A:  regular or routine healthcare **/

    ARRAY NOTE7 H09022A H09023A;
    N7MARK=0;
    N7NMISS=0;
    N7NN=0;

    DO OVER NOTE7;
        IF NOTE7 NE . THEN N7NMISS+1;
        IF NOTE7 NOT IN (.N,.) THEN N7MARK+1;
        IF NOTE7 EQ .N THEN N7NN+1;
    END;

    IF H09021A=1 AND N7NMISS=0 THEN DO;
        N7=1;
    END;
    ELSE IF H09021A IN (1,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
        H09021A=2;
        N7=2;
        DO OVER NOTE7;
            IF NOTE7=. THEN NOTE7=.N;
            ELSE NOTE7=.C;
```

```
        END;
     END;
  ELSE IF H09021A=1 AND N7MARK=1 AND N7NN=1 THEN  DO;
     DO OVER NOTE7;
        IF NOTE7=.N THEN NOTE7=.;
     END;
     N7=3;
  END;
  ELSE IF H09021A=1 AND N7MARK>0 THEN DO;
     N7=4;
  END;
  ELSE IF H09021A=2 AND N7MARK=1 AND N7NN=1  THEN  DO;
     H09022A=.C;
     H09023A=.C;
     N7=5;
  END;
  ELSE IF H09021A IN (2,.) AND N7MARK>0 THEN DO;
     H09021A=1;
     N7=6;
     DO OVER NOTE7;
        IF NOTE7=.N THEN NOTE7=.;
     END;
  END;
  ELSE IF H09021A=2 AND (N7NMISS=0 OR (N7NMISS>0 AND N7MARK=0)) THEN DO;
     N7=7;
     DO OVER NOTE7;
        IF NOTE7=. THEN NOTE7=.N;
        ELSE NOTE7=.C;
     END;
  END;
  ELSE IF H09021A=.  AND N7NMISS=0 THEN N7=8;


  DROP N7NMISS N7MARK N7NN;



/** Note 8 -- H09025A, H09026A-H09037A: doctor's office or clinic **/

  ARRAY NOTE8  H09026A--H09037A;

  N8MARK=0;
  N8NMISS=0;

  DO OVER NOTE8;
     IF NOTE8 NE . THEN N8NMISS+1;
     IF NOTE8 NOT IN  (., .N) THEN N8MARK+1;
  END;


  IF H09025A=1 THEN DO;
     N8=1;
     DO OVER NOTE8;
        IF NOTE8=. THEN NOTE8=.N;
        ELSE NOTE8=.C;
     END;
  END;
  ELSE IF H09025A IN (2,3,4,5,6,7,.) AND N8NMISS>0 AND N8MARK=0 THEN DO;
     H09025A=1;
     N8=2;
     DO OVER NOTE8;
        IF NOTE8=. THEN NOTE8=.N;
        ELSE NOTE8=.C;
     END;
  END;
  ELSE IF H09025A IN (2,3,4,5,6,7) AND (N8NMISS=0 OR N8MARK>0) THEN DO;
     DO OVER NOTE8;
        IF NOTE8=.N THEN NOTE8=.;
     END;
     N8=3;
  END;
  ELSE IF H09025A=.  AND N8NMISS=0 THEN N8=4;
  ELSE IF H09025A IN (.) AND N8MARK>0 THEN DO;
     N8=5;
```

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```
      DO OVER NOTE8;
          IF NOTE8=.N THEN NOTE8=.;
      END;
   END;

   DROP N8NMISS N8MARK;



/** Note 9 -- You or doctor believed you needed care, tests or treatment:
              H09026A, H09027A **/


   IF H09026A IN (.N, .C) THEN N9=1;
   ELSE IF H09026A=1 AND H09027A IN (1,2,3,.) THEN N9=2;
   ELSE IF H09026A IN (1,.) AND H09027A=.N THEN DO;
      H09026A=2;
      H09027A=.C;
      N9=3;
   END;
   ELSE IF H09026A IN (2,.) AND H09027A IN (1,2,3) THEN DO;
      H09026A=1;
      N9=4;
   END;
   ELSE IF H09026A=2 AND H09027A IN (.,.N) THEN DO;
      IF H09027A=. THEN H09027A=.N;
      ELSE H09027A=.C;
      N9=5;
   END;
   ELSE IF H09026A=.  AND H09027A=.  THEN N9=6;



/** Note 10 -- Needed approval from healthplan for care, tests or treatment:
              H09028A, H09029A **/

   IF H09028A IN (.N, .C) THEN N10=1;
   ELSE IF H09028A=1 AND H09029A IN (1,2,3,.) THEN N10=2;
   ELSE IF H09028A IN (1,.) AND H09029A=.N THEN DO;
      H09028A=2;
      H09029A=.C;
      N10=3;
   END;
   ELSE IF H09028A IN (2,.) AND H09029A IN (1,2,3) THEN DO;
      H09028A=1;
      N10=4;
   END;
   ELSE IF H09028A=2 AND H09029A IN (.,.N) THEN DO;
      IF H09029A=. THEN H09029A=.N;
      ELSE H09029A=.C;
      N10=5;
   END;
   ELSE IF H09028A=.  AND H09029A=.  THEN N10=6;


/** Note 10A1 -- S09B02A, S09B03A-S09B04A: overall mental health **/

   ARRAY NOTE10A1  S09B03A--S09B04A;

   N10A1MARK=0;
   N10A1NMISS=0;

   DO OVER NOTE10A1;
      IF NOTE10A1 NE . THEN N10A1NMISS+1;
      IF NOTE10A1 NOT IN  (., .N) THEN N10A1MARK+1;
   END;

   IF S09B02A = 1 THEN DO;
      DO OVER NOTE10A1;
          IF NOTE10A1=.N THEN NOTE10A1=.;
      END;
      N10A1=1;
   END;
   ELSE IF S09B02A IN (2,.) AND (N10A1MARK>0) THEN DO;
```

```
      N10A1=2;
      S09B02A=1;
   END;
   ELSE IF S09B02A=2  AND (N10A1NMISS=0 OR (N10A1NMISS > 0 AND N10A1MARK = 0)) THEN DO;
      N10A1=3;
      DO OVER NOTE10A1;
         IF NOTE10A1 = . THEN NOTE10A1=.N;
         ELSE NOTE10A1 = .C;
      END;
   END;
   ELSE IF S09B02A IN (.) AND (N10A1NMISS > 0 AND N10A1MARK = 0) THEN DO;
      N10A1=4;
      S09B02A=2;
      DO OVER NOTE10A1;
         IF NOTE10A1 = . THEN NOTE10A1=.N;
         ELSE NOTE10A1 = .C;
      END;
   END;
   ELSE IF S09B02A IN (.) AND N10A1NMISS=0 THEN N10A1=5;

   DROP N10A1NMISS N10A1MARK;


/** Note 11 -- H09039A, H09040A-H09041A: claims to health plan **/

   ARRAY NOTE11 H09040A--H09041A;
   N11MARK=0;
   N11NMISS=0;
   N11NDK=0;

   DO OVER NOTE11;
      IF NOTE11 NE . THEN N11NMISS+1;
      IF NOTE11 NOT IN (.N,.) THEN N11MARK+1;
      IF NOTE11 NOT IN (.,.D) THEN N11NDK+1;
   END;

   IF H09039A=1 AND
      (N11NMISS=0 OR (N11MARK>0 and N11NDK>0) or (N11NMISS>0 AND N11NDK=0))
   THEN DO;
      N11=1;
      DO OVER NOTE11;
         IF NOTE11=.N THEN NOTE11=.;
      END;
   END;
   ELSE IF H09039A IN (1,.,.D) AND N11NMISS>0 AND N11MARK=0 THEN DO;
      N11=2;
      H09039A=2;
      DO OVER NOTE11;
         IF NOTE11=. THEN NOTE11=.N;
         ELSE NOTE11=.C;
      END;
   END;
   ELSE IF H09039A IN (2,.,.D) AND
          ((N11MARK>0 AND N11NDK>0) OR (N11NMISS>0 AND N11NDK=0))
       THEN DO;
      H09039A=1;
      N11=3;
      DO OVER NOTE11;
         IF NOTE11=.N THEN NOTE11=.;
      END;
   END;
   ELSE IF H09039A IN (2) AND (N11NMISS=0 OR (N11NMISS>0 AND N11MARK=0)) THEN DO;
      N11=4;
      DO OVER NOTE11;
         IF NOTE11=. THEN NOTE11=.N;
         ELSE NOTE11=.C;
      END;
   END;
   ELSE IF H09039A IN (.D) AND N11NMISS=0 THEN DO;
      N11=5;
      DO OVER NOTE11;
         NOTE11=.N;
      END;
   END;
```

```
      ELSE IF H09039A IN (.)  AND N11NMISS=0 THEN N11=6;

   DROP N11NMISS N11MARK N11NDK;




/** NOTE12  -- H09042A, H09043A: **/

   IF H09042A=1 AND H09043A IN (1,2,3,.) THEN N12=1;
   ELSE IF H09042A IN (1,.) AND H09043A=.N THEN DO;
      H09042A=2;
      H09043A=.C;
      N12=2;
   END;
   ELSE IF H09042A IN (2,.) AND H09043A IN (1,2,3) THEN DO;    /* JMA per Daisy's suggestion
3/20/03  */
      H09042A=1;
      N12=3;
   END;
   ELSE IF H09042A=2 AND H09043A IN (.N,.) THEN DO;
      IF H09043A=. THEN H09043A=.N;
      ELSE H09043A=.C;
      N12=4;
   END;
   ELSE IF H09042A=. AND H09043A=. THEN N12=5;


/** NOTE13 -- H09044A, H09045A: health plan's customer service **/

   IF H09044A=1 AND H09045A IN (1,2,3,.) THEN N13=1;
   ELSE IF H09044A IN (1,.) AND H09045A=.N THEN DO;
      H09044A=2;
      H09045A=.C;
      N13=2;
   END;
   ELSE IF H09044A IN (2,.) AND H09045A IN (1,2,3) THEN DO;
      H09044A=1;
      N13=3;
   END;
   ELSE IF H09044A=2 AND H09045A IN (.N,.) THEN DO;
      IF H09045A=. THEN H09045A=.N;
      ELSE H09045A=.C;
      N13=4;
   END;
   ELSE IF H09044A=. AND H09045A=. THEN N13=5;


/** NOTE14  -- H09046A, H09047A: paperwork  **/

   IF H09046A=1 AND H09047A IN (1,2,3,.) THEN N14=1;
   ELSE IF H09046A IN (1,.) AND H09047A=.N THEN DO;
      H09046A=2;
      H09047A=.C;
      N14=2;
   END;
   ELSE IF H09046A IN (2,.) AND H09047A IN (1,2,3) THEN DO;
      H09046A=1;
      N14=3;
   END;
   ELSE IF H09046A=2 AND H09047A IN (.N,.)THEN DO;
      IF H09047A=. THEN  H09047A=.N;
      ELSE H09047A=.C;
      N14=4;
   END;
   ELSE IF H09046A=.  AND H09047A=. THEN N14=5;


/** Note 15 -- smoking:  H09052A, H09053A-H09057A  **/

   ARRAY NOTE15 H09055A H09056A H09057A;

   IF H09052A=1 and H09053A IN (3,4) THEN DO;  /* still smoke */
      IF H09054A NE . THEN H09054A=.C;
```

```
        ELSE H09054A=.N;

    N15=1;
END;
ELSE IF H09052A=1 AND H09053A=2 THEN DO;            /* quit */
    /* JMA March 25 2004,
       Updated because H09056A and H09057A have been added to the
       skip pattern */
    IF H09054A IN (2,.D) THEN DO;               /* > 1 year ago */
       DO OVER NOTE15;
           IF NOTE15=. THEN NOTE15=.N;
           ELSE NOTE15=.C;
       END;
       N15=2;
    END;
    ELSE IF H09054A IN (3,.) THEN DO;          /* < 1 year ago */

       N15=3;

    END;
END;
ELSE IF H09052A=1 AND H09053A IN (.D,.) THEN DO;  /* don't know */
    IF H09054A=2 THEN DO;                        /* > 1 year ago */

       /* JMA March 25 2004,
          Updated because H09056A and H09057A have been added to the
          skip pattern */

       DO OVER NOTE15;
           IF NOTE15=. THEN NOTE15=.N;
           ELSE NOTE15=.C;
       END;
       H09053A=2;
       N15=4;
    END;
    ELSE IF H09054A=3 THEN DO;             /* < 1 year ago */
       H09053A=2;
       N15=5;
    END;
    ELSE IF H09053A IN (.D) AND H09054A IN (.D,.) THEN DO;
       N15=6;
       IF H09054A=. THEN H09054A=.N;
       ELSE H09054A=.C;
       DO OVER NOTE15;
           IF NOTE15=. THEN NOTE15=.N;
           ELSE NOTE15=.C;
       END;
    END;
    ELSE IF H09053A IN (.) AND H09054A IN (.D) THEN DO;
       N15=7;
       DO OVER NOTE15;
           IF NOTE15=. THEN NOTE15=.N;
           ELSE NOTE15=.C;
       END;
    END;
    ELSE IF H09053A IN (.) AND H09054A IN (.) THEN DO;
       N15=8;
    END;
END;
ELSE IF H09052A IN (2,.D,.) AND H09053A IN (3,4) THEN DO;
    H09052A=1;

    IF H09054A NE . THEN H09054A=.C;
    ELSE H09054A=.N;


    N15=9;
END;
ELSE IF H09052A IN (2,.D) AND H09053A IN (2,.D, .) THEN DO; /*never smoke*/
    /* JMA March 25 2004,
       Updated because H09056A and H09057A have been added to the
       skip pattern */

    IF H09053A NE . THEN H09053A =.C;
```

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```
            ELSE H09053A=.N;

        IF H09054A NE . THEN H09054A =.C;
        ELSE H09054A=.N;

        DO OVER NOTE15;
            IF NOTE15=. THEN NOTE15=.N;
            ELSE NOTE15=.C;
        END;

        N15=10;
    END;
    ELSE IF H09052A IN ( .) THEN DO;
        IF (H09053A IN (2) AND
            H09054A IN (.) AND
            (H09055A IN (2,3,4,5) OR H09056A IN (2,3,4,5) OR H09057A IN (2,3,4,5)))
        THEN DO;
            /* JMA March 25 2004,
               Updated because H09056A and H09057A have been added to the
               skip pattern */

            H09052A=1;
            H09054A=3;
            N15=11;
        END;
        ELSE IF H09053A IN (2,.) THEN DO; /*MRE/blank*/
            IF H09054A IN (2, .D) THEN DO;
                /* JMA March 25 2004,
                   Updated because H09056A and H09057A have been added to the
                   skip pattern */

                DO OVER NOTE15;
                    IF NOTE15=. THEN NOTE15=.N;
                    ELSE NOTE15=.C;
                END;
                N15=12;
            END;
            ELSE IF H09054A IN (3,.) THEN DO;
                IF (H09055A IN (2,3,4,5) OR H09056A IN (2,3,4,5) OR H09057A IN (2,3,4,5))
                THEN DO;
                    H09052A=1;
                    N15=13;
                END;
                ELSE DO;

                    N15=14;
                END;
            END;
        END;
        ELSE IF H09053A=.D THEN DO; /*MRE/blank*/
            /* JMA March 25 2004,
               Updated because H09056A and H09057A have been added to the
               skip pattern */

            IF H09054A NE . THEN H09054A =.C;
            ELSE H09054A=.N;

            DO OVER NOTE15;
                IF NOTE15=. THEN NOTE15=.N;
                ELSE NOTE15=.C;
            END;

            N15=15;
        END;
    END;


/** Note 16 -- advice from doctor on smoking:  H09055A-H09057A  **/

    IF H09055A EQ .N THEN DO;                /* jma Sep 19 2006 */
        IF H09056A IN (.,.N) THEN H09056A = .N;
        ELSE H09056A=.C;
        IF H09057A IN (.,.N) THEN H09057A = .N;
        ELSE H09057A=.C;
```

```
      N16=1;
   END;
   ELSE IF H09055A EQ .C THEN DO;                     /* jma fEB 19 2008 */
      N16=2;
   END;
   ELSE IF H09055A EQ 1 AND (H09056A =.N AND H09057A=.N) THEN DO; /* jma May 10 2007 */
      H09056A = 1;
      H09057A = 1;
      N16=3;
   END;
   ELSE IF H09055A EQ 1 AND (H09056A =.N) THEN DO; /* jma May 10 2007 */
      H09056A = 1;
      N16=4;
   END;
   ELSE IF H09055A EQ 1 AND (H09057A=.N) THEN DO; /* jma May 10 2007 */
      H09057A = 1;
      N16=5;
   END;
   ELSE IF H09055A IN (2,3,4,5,.) AND (H09056A =.N AND H09057A= .N) THEN DO; /* jma May 10 2007
*/
      H09056A = .;
      H09057A = .;
      N16=6;
   END;
   ELSE IF H09055A IN (2,3,4,5,.) AND (H09056A =.N) THEN DO; /* jma May 10 2007 */
      H09056A = .;
      N16=7;
   END;
   ELSE IF H09055A IN (2,3,4,5,.) AND (H09057A= .N) THEN DO; /* jma May 10 2007 */
      H09057A = .;
      N16=8;
   END;
   ELSE IF H09055A GE 1 AND (H09056A > H09055A AND H09057A > H09055A) THEN DO; /* jma May 10
2007 */
      H09056A = H09055A;
      H09057A = H09055A;
      N16=9;
   END;
   ELSE IF H09055A GE 1 AND (H09056A > H09055A) THEN DO; /* jma May 10 2007 */
      H09056A = H09055A;
      N16=10;
   END;
   ELSE IF H09055A GE 1 AND (H09057A > H09055A) THEN DO; /* jma May 10 2007 */
      H09057A = H09055A;
      N16=11;
   END;
   ELSE IF H09055A GE 1 AND ((H09056A <= H09055A or H09056A = . ) AND (H09057A <= H09055A or
H09057A=.))
   THEN DO; /* jma Feb 19 2007 */
      N16=12;
   END;
   ELSE IF (H09055A=. AND H09056A IN (1,2,3,4,5,.) AND H09057A IN (1,2,3,4,5,.))
   THEN DO; /* jma Feb 19 2007 */
      N16=13;
   END;

/** Note 16A1 -- S09D01A, S09D02A: chewing tobacco **/


   IF S09D01A=1 AND S09D02A IN (1,2,3,.D)
   THEN DO;
      N16A1=1;
   END;
   ELSE IF S09D01A IN (1) AND S09D02A IN (.) THEN DO;
      N16A1=2;
   END;
   ELSE IF S09D01A IN (2,.,.D) AND S09D02A IN (1,2) THEN DO;
      N16A1=3;
      S09D01A=1;
   END;
   ELSE IF S09D01A IN (2,.D) AND S09D02A IN (3,.,.D) THEN DO;
      N16A1=4;
      IF S09D02A IN (3,.D) THEN S09D02A = .C;
      ELSE IF S09D02A = . THEN S09D02A = .N;
```

```
      END;
   ELSE IF S09D01A IN (.) AND S09D02A IN (3,.,.D) THEN DO;
      N16A1=5;
   END;



/** Note 17 - gender H09058A, SEX, H09059A--H09065A,
             XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
   if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


   ARRAY fmaleval H09059A H09060A H09061A H09063A H09064A H09065A
                  ;

   cntfmale=0;
   DO OVER fmaleval;                 /* mammogram/pap smear/PREGNANT*/
      IF fmaleval>0 THEN cntfmale=cntfmale+1;
   END;

   IF cntfmale>0 THEN FMALE=1;
   ELSE FMALE = 0;


   IF H09058A=. THEN DO;
      IF (SEX='F' AND FMALE) THEN DO;
         N17a=1;
         XSEXA=2;
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N17a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N17a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N17a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N17a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N17a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N17a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H09058A=1) THEN DO;
      IF FMALE=0 THEN DO;
         N17a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N17a=9;
            XSEXA=2;
         END;
         ELSE DO;
            N17a=10;
            XSEXA=1;
         END;
      END;
   END;
   ELSE IF (H09058A=2) THEN DO;
      IF FMALE THEN DO;
```

```
          N17a=11;
           XSEXA=2;
        END;
        ELSE IF FMALE=0 THEN DO;
           IF SEX='M' THEN DO;
             N17a=12;
              XSEXA=1;
           END;
           ELSE DO;
              N17a=13;
               XSEXA=2;
           END;
        END;
     END;


 /* Note 17b - gender vs mammogram/paps/pregnancy */

    ARRAY NOTE17B H09059A H09060A H09061A H09063A H09064A H09065A
                 ;
    IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
         N17b=1;
         DO OVER NOTE17b;
            NOTE17b=.N;
         END;
      END;   /* valid skip */
      ELSE IF FMALE=1 THEN DO;
         N17b=2;
         DO OVER NOTE17b;
            IF NOTE17b=. THEN NOTE17b = .N;
            ELSE NOTE17b=.C;
         END;
      END;   /* inconsistent response */
    END;
    ELSE IF XSEXA=2 THEN  N17b=3; /* female */
    ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
      N17b=4;
      DO OVER NOTE17b;
         NOTE17b=.;
      END;
    END;


    DROP FMALE CNTFMALE;


 /* Note 18 - breast exam for female 40 or over  */

    IF XSEXA=1 THEN DO;  /* male */
       IF  (H09060A=.C OR H09060A=.N) AND (H09061A=.C OR H09061A=.N)
       THEN N18 = 1;
    END;
    ELSE IF XSEXA=2 THEN DO;
       IF H09060A=2 THEN N18=2;         /* female 40 or over */
       ELSE IF H09060A=1 THEN DO;   /* female < 40 */
          IF H09061A NE . THEN H09061A=.C;
          ELSE H09061A=.N;
          N18=3;
       END;
       ELSE IF H09060A=. THEN DO;
          IF H09061A NE . THEN DO;
             H09060A=2;
             N18=4;
          END;
          ELSE IF H09061A=.  THEN DO;
             IF AGE<40 THEN DO;
                H09060A = 1;
                H09061A=.N;
                N18=5;
             END;
             ELSE IF AGE >= 40 THEN DO;
                H09060A=2;
                N18=6;
```

```
                    END;
                    ELSE IF AGE=. THEN N18=7;
                END;
            END;
        END;
        ELSE IF XSEXA=. THEN N18=8;



/* Note 19 - gender vs Pregnancy */


    IF XSEXA=1 THEN N19=1;              /* male     */
    ELSE IF XSEXA=2 THEN DO;            /* female   */
        IF H09063A=1 THEN DO;               /* pregnant */
            IF H09064A=1 THEN DO;
                N19=2;
                IF H09065A=. THEN H09065A = .N;
                ELSE H09065A=.C;
            END;
            ELSE IF H09064A=2 AND H09065A IN (2) THEN DO;
                N19=3;
                H09065A=.;
            END;
            ELSE IF H09064A=2 AND H09065A IN (4,3,1,.) THEN DO;
                N19=4;
            END;
            ELSE IF H09064A IN (3,.) THEN N19=5;
        END;
        ELSE IF H09063A=2 THEN DO;
            IF H09064A=. THEN H09064A = .N;
            ELSE H09064A=.C;
            N19=6;
        END;
        ELSE IF H09063A=3 THEN DO;
            N19=7;
            IF H09064A=. THEN H09064A = .N;
            ELSE H09064A=.C;
            IF H09065A=. THEN H09065A=.N;
            ELSE H09065A=.C;
        END;
        ELSE IF H09063A IN (.) THEN DO;
            IF H09064A=1 THEN DO;
                N19=8;
                H09063A=1;
                IF H09065A=. THEN H09065A = .N;
                ELSE H09065A=.C;
            END;
            ELSE IF H09064A=2 AND H09065A IN (2) THEN DO;
                N19=9;
                H09063A=1;
                H09065A=.;
            END;
            ELSE IF H09064A=2 AND H09065A IN (4,3,1,.) THEN DO;
                H09063A=1;
                N19=10;
            END;
            ELSE IF H09064A=3 THEN DO;
                H09063A=1;
                N19=11;
            END;
            ELSE IF H09064A=. THEN DO;
                N19=12;
            END;
        END;
    END;
    ELSE IF XSEXA=. AND H09063A IN (.) THEN N19=13;



    DROP AGE SEX;
```

```
/** Note 20 -- H09070A, H09070AA-H09070EA: Hispanic or Latino origin or descent **/

  /* JMA
  ****Multiple responses were given to this question so H09070A is being created
  ****from the multiple responses.;
  */


  IF H09070BA=1 THEN DO;
     N20=1;
     H09070A=2;
  END;
  ELSE IF H09070EA=1 THEN DO;
     N20=2;
     H09070A=5;
  END;
  ELSE IF H09070CA=1 THEN DO;
     N20=3;
     H09070A=3;
  END;
  ELSE IF H09070DA=1 THEN DO;
     N20=4;
     H09070A=4;
  END;
  ELSE IF H09070AA=1 THEN DO;
     N20=5;
     H09070A=1;
  END;
  ELSE IF H09070AA IN (2,.) AND H09070BA IN (2,.) AND H09070CA IN (2,.) AND
          H09070DA IN (2,.) AND H09070EA IN (2,.) THEN DO;
     N20=6;
     H09070A=.;

  END;




NOSURVEY:

/* missing values */

  ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
  MISS_TOT=0;
  DO OVER MISS;
     MISS = 0;
  END;
  ARRAY MISSARAY &VARLIST2.;

  DO OVER MISSARAY;
     IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
     ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
     ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
     ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
     ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
     ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
     ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
  END;
  DO OVER MISS;
     MISS_TOT=MISS_TOT + MISS;
  END;

*****************************************;

 OUTPUT;

RUN;


proc contents data=out.cschm09qV3;
run;
```

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

        FORMAT H09001A   H09001A_O YN.
               H09003A   H09003A_O MEDA.
               H09004A   H09004A_O MEDB.
               H09005A   H09005A_O MEDSUPP.
               H09006A   H09006A_O HPLAN1_.
               H09007A   H09007A_O HPTIME.

               H09008A H09008A_O   H09010A H09010A_O   H09012A H09012A_O
               H09014A H09014A_O   H09016A H09016A_O   H09018A H09018A_O
               H09021A H09021A_O   H09026A H09026A_O   H09028A H09028A_O
                 YN.


               H09009A   H09009A_O RATE1_.
               H09011A   H09011A_O PROB1_.
               H09013A   H09013A_O PROB2_.
               H09015A   H09015A_O RATE2_.
               H09017A   H09017A_O OFTEN1_.
               H09019A   H09019A_O OFTEN2_.
               H09020A   H09020A_O TIME1_.
               H09022A   H09022A_O OFTEN3_.
               H09023A   H09023A_O TIME2_.
               H09024A   H09024A_O OFTEN4_.
               H09025A   H09025A_O OFTEN4_.

               H09027A   H09027A_O PROB3_.
               H09029A   H09029A_O PROB3a.

               H09030A--H09036A   H09030A_O--H09036A_O OFTEN5_.

               H09037A   H09037A_O RATE3_.

               H09038A   H09038A_O PLACE.

               S09B01A S09B01A_O MNTLHLTH.
               S09B02A S09B02A_O YN.
               S09B03A S09B03A_O PROB1_.
               S09B04A S09B04A_O RATE5_.

               S09D01A S09D01A_O YNDNK.
               S09D02A S09D02A_O TIME15_.
               S09D03A S09D03A_O YNDNK.
               S09D04A S09D04A_O VISIT.

               S09N11A S09N11A_O S09N11_.

               H09039A   H09039A_O YNDNK.

               H09040A--H09041A   H09040A_O--H09041A_O OFTEN6_.

               H09042A H09042A_O   H09044A H09044A_O
               H09046A H09046A_O   H09060A H09060A_O
               H09067A H09067A_O
                 YN.

               H09043A   H09043A_O PROB8_.
               H09045A   H09045A_O PROB9_.
               H09047A   H09047A_O PROB10_.
               H09048A   H09048A_O RATE4_.

               H09049A   H09049A_O TIME5_.
               H09050A   H09050A_O YNBP_.

               H09051A   H09051A_O TIME7_.
               H09052A   H09052A_O YNDNK.
               H09053A   H09053A_O TIME8_.
               H09054A   H09054A_O TIME9_.
```

```
        H09055A    H09055A_O OFTEN7_.
        H09056A    H09056A_O OFTEN7_.
        H09057A    H09057A_O OFTEN7_.

        H09058A    H09058A_O SEX.
        H09059A    H09059A_O TIME11_.
        H09061A    H09061A_O TIME12_.
        H09063A    H09063A_O YNPREG.
        H09064A    H09064A_O PREG1_.
        H09065A    H09065A_O PREG2_.
        H09066A    H09066A_O HEALTH.

        H09068FA H09068FAO
        H09068IA H09068IAO
        H09069A  H09069A_O
          TIME14_.

        SREDAA     SREDAA_O  EDUC.
        H09070A              HISP.
        SRAGEA     SRAGEA_O  AGEGRP.


        MISS_1   MISS_4-MISS_9 MISS_TOT 4.
        ;


  LABEL H09001A_O='Are you the person listed on envelope'
        H09001A  ='Are you the person listed on envelope'
        H09002AAO='Health plan(s) covered: TRICARE Prime'
        H09002AA ='Health plan(s) covered: TRICARE Prime'
        H09002CAO='Health plan(s) covered: TRICARE Ext/Stnd'
        H09002CA ='Health plan(s) covered: TRICARE Ext/Stnd'
        H09002NAO='Health plan(s) covered: TRICARE Plus'
        H09002NA ='Health plan(s) covered: TRICARE Plus'
        H09002OAO='Health plan(s) covered: TRICARE For Life'
        H09002OA ='Health plan(s) covered: TRICARE For Life'
        H09002PAO='Health plan(s) covered: TRICARE Supplmntl Ins'
        H09002PA ='Health plan(s) covered: TRICARE Supplmntl Ins'
        H09002QAO='Health plan(s) covered: TRICARE Reserve Select'
        H09002QA ='Health plan(s) covered: TRICARE Reserve Select'
        H09002FAO='Health plan(s) covered: Medicare'
        H09002FA ='Health plan(s) covered: Medicare'
        H09002GAO='Health plan(s) covered: FEHBP'
        H09002GA ='Health plan(s) covered: FEHBP'
        H09002HAO='Health plan(s) covered: Medicaid'
        H09002HA ='Health plan(s) covered: Medicaid'
        H09002IAO='Health plan(s) covered: Civilian HMO'
        H09002IA ='Health plan(s) covered: Civilian HMO'
        H09002JAO='Health plan(s) covered: Other civilian'
        H09002JA ='Health plan(s) covered: Other civilian'
        H09002KAO='Health plan(s) covered: USFHP'
        H09002KA ='Health plan(s) covered: USFHP'
        H09002MAO='Health plan(s) covered: Veterans'
        H09002MA ='Health plan(s) covered: Veterans'
        H09002RAO='Health plan(s) covered: Gov Hlth ins-other cntry'
        H09002RA ='Health plan(s) covered: Gov Hlth ins-other cntry'
        H09002LAO='Health plan(s) covered: Not sure'
        H09002LA ='Health plan(s) covered: Not sure'
        H09003A  ='Currently Covered Medicare Part A'
        H09003A_O='Currently Covered Medicare Part A'
        H09004A  ='Currently Covered Medicare Part B'
        H09004A_O='Currently Covered Medicare Part B'
        H09005A  ='Currently Covered Medicare Supplemental'
        H09005A_O='Currently Covered Medicare Supplemental'
        H09006A_O='Which health plan did you use most'
        H09006A  ='Which health plan did you use most'
        H09007A_O='Yrs in a row with health plan'
        H09007A  ='Yrs in a row with health plan'
        H09008A_O='Have one person think of as personal Dr'
        H09008A  ='Have one person think of as personal Dr'
        H09009A_O='Rating of your personal Dr or nurs'
        H09009A  ='Rating of your personal Dr or nurs'
        H09010A_O='Same prs Dr/nurs before joined hlth pln'
        H09010A  ='Same prs Dr/nurs before joined hlth pln'
```

```
H09011A_O='Health plan: prblm to get Dr happy with'
H09011A  ='Health plan: prblm to get Dr happy with'
H09012A_O='In lst yr:you/Dr think you need spclst'
H09012A  ='In lst yr:you/Dr think you need spclst'
H09013A_O='In lst yr:how much prblm see spclst'
H09013A  ='In lst yr:how much prblm see spclst'
H09014A_O='In lst yr:did you see a specialist'
H09014A  ='In lst yr:did you see a specialist'
H09015A_O='Rating of specialist seen in lst yr'
H09015A  ='Rating of specialist seen in lst yr'
H09016A_O='In lst yr:call Dr for help/advice'
H09016A  ='In lst yr:call Dr for help/advice'
H09017A_O='In lst yr:when call how often get hlp nd'
H09017A  ='In lst yr:when call how often get hlp nd'
H09018A_O='In lst yr:ill/injry/cond care right away'
H09018A  ='In lst yr:ill/injry/cond care right away'
H09019A_O='In lst yr:get urgnt care as soon as wntd'
H09019A  ='In lst yr:get urgnt care as soon as wntd'
H09020A_O='In lst yr:wait btwn try get care,see prv'
H09020A  ='In lst yr:wait btwn try get care,see prv'
H09021A_O='In lst yr:make appts non-urgnt hlth care'
H09021A  ='In lst yr:make appts non-urgnt hlth care'
H09022A_O='In lst yr:non-urg hlth cre appt whn wntd'
H09022A  ='In lst yr:non-urg hlth cre appt whn wntd'
H09023A_O='In lst yr:days btwn appt & see prvder'
H09023A  ='In lst yr:days btwn appt & see prvder'
H09024A_O='In lst yr:goto emrgncy rm for own care'
H09024A  ='In lst yr:goto emrgncy rm for own care'
H09025A_O='In lst yr:goto Dr office/clinic for care'
H09025A  ='In lst yr:goto Dr office/clinic for care'
H09026A_O='In lst yr:think need care/tests/trtmnt'
H09026A  ='In lst yr:think need care/tests/trtmnt'
H09027A_O='In lst yr:prblm to get care thght ncssry'
H09027A  ='In lst yr:prblm to get care thght ncssry'
H09028A_O='In lst yr:need apprvl care/tests/trtmnt'
H09028A  ='In lst yr:need apprvl care/tests/trtmnt'
H09029A_O='In lst yr:prblm w/delays wait for apprv'
H09029A  ='In lst yr:prblm w/delays wait for apprv'
H09030A_O='In lst yr:wait within 15 min appt see Dr'
H09030A  ='In lst yr:wait within 15 min appt see Dr'
H09031A_O='In lst yr:how oftn treat w/crtsy/rspct'
H09031A  ='In lst yr:how oftn treat w/crtsy/rspct'
H09032A_O='In lst yr:how oftn staff helpful'
H09032A  ='In lst yr:how oftn staff helpful'
H09033A_O='In lst yr:how oftn Drs listen to you'
H09033A  ='In lst yr:how oftn Drs listen to you'
H09034A_O='In lst yr:how oftn Drs explain things'
H09034A  ='In lst yr:how oftn Drs explain things'
H09035A_O='In lst yr:how oftn Drs show respect'
H09035A  ='In lst yr:how oftn Drs show respect'
H09036A_O='In lst yr:how oftn Drs spend enough time'
H09036A  ='In lst yr:how oftn Drs spend enough time'
H09037A_O='Rating of all health care in lst yr'
H09037A  ='Rating of all health care in lst yr'
H09038A_O='In lst yr:fclty use most for Health care'
H09038A  ='In lst yr:fclty use most for Health care'
H09039A_O='In lst yr:send in any claims'
H09039A  ='In lst yr:send in any claims'
H09040A_O='In lst yr:hlth pln handle claims in rsnble time'
H09040A  ='In lst yr:hlth pln handle claims in rsnble time'
H09041A_O='In lst yr:how oftn handle claims correctly'
H09041A  ='In lst yr:how oftn handle claims correctly'
H09042A_O='In lst yr:info in written materials'
H09042A  ='In lst yr:info in written materials'
H09043A_O='In lst yr:prblm to find/undrstnd mtrls'
H09043A  ='In lst yr:prblm to find/undrstnd mtrls'
H09044A_O='In lst yr:hlth plan customer srvc help'
H09044A  ='In lst yr:hlth plan customer srvc help'
H09045A_O='In lst yr:prblm get help from cstmr srvc'
H09045A  ='In lst yr:prblm get help from cstmr srvc'
H09046A_O='In lst yr:fill out paperwork'
H09046A  ='In lst yr:fill out paperwork'
H09047A_O='In lst yr:prblms with paperwork'
H09047A  ='In lst yr:prblms with paperwork'
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H09048A  ='Rating of all experience with hlth plan'
H09048A_O='Rating of all experience with hlth plan'
H09049A_O='Blood pressure: when lst reading'
H09049A  ='Blood pressure: when lst reading'
H09050A_O='Blood pressure: know if too high or not'
H09050A  ='Blood pressure: know if too high or not'
H09051A_O='When did you lst have a flu shot'
H09051A  ='When did you lst have a flu shot'
H09052A  ='Smoked at least 100 cigarettes in life'
H09052A_O='Smoked at least 100 cigarettes in life'
H09053A  ='Smoke everyday, some days or not at all'
H09053A_O='Smoke everyday, some days or not at all'
H09054A_O='How long since you quit smoking'
H09054A  ='How long since you quit smoking'
H09055A_O='Lst yr: # visits advised to quit smoking'
H09055A  ='Lst yr: # visits advised to quit smoking'
H09056A  ='# visits recom medic assist quit smoking'
H09056A_O='# visits recom medic assist quit smoking'
H09057A  ='# vist discu meth/strag asst quit smokng'
H09057A_O='# vist discu meth/strag asst quit smokng'
H09058A_O='Are you male or female'
H09058A  ='Are you male or female'
H09059A_O='Lst have a Pap smear test'
H09059A  ='Lst have a Pap smear test'
H09060A_O='Are you under age 40'
H09060A  ='Are you under age 40'
H09061A_O='Lst time: breasts checked mammography'
H09061A  ='Lst time: breasts checked mammography'
H09063A_O='Been pregnant in lst yr or pregnant now'
H09063A  ='Been pregnant in lst yr or pregnant now'
H09064A_O='In what trimester is your pregnancy'
H09064A  ='In what trimester is your pregnancy'
H09065A_O='Trimester first received prenatal care'
H09065A  ='Trimester first received prenatal care'
H09066A_O='In gnrl, how would you rate ovrall hlth'
H09066A  ='In gnrl, how would you rate ovrall hlth'
H09067A_O='Impairment/Hlth prblm limit activities'
H09067A  ='Impairment/Hlth prblm limit activities'

H09068FAO='Height without shoes (feet)'
H09068FA ='Height without shoes (feet)'
H09068IAO='Height without shoes (inches)'
H09068IA ='Height without shoes (inches)'
H09069A_O='Weight without shoes'
H09069A  ='Weight without shoes'

SREDAA_O ='Highest grade completed'
SREDAA   ='Highest grade completed'
H09070A  ='Are you Spanish/Hispanic/Latino'
H09070AAO='Not Spanish/Hispanic/Latino'
H09070AA ='Not Spanish/Hispanic/Latino'
H09070BAO='Mexican, Mexican American, Chicano'
H09070BA ='Mexican, Mexican American, Chicano'
H09070CAO='Puerto Rican'
H09070CA ='Puerto Rican'
H09070DAO='Cuban'
H09070DA ='Cuban'
H09070EAO='Other Spanish, Hispanic, or Latino'
H09070EA ='Other Spanish, Hispanic, or Latino'
SRRACEAAO='Race: White'
SRRACEAA ='Race: White'
SRRACEBAO='Race: Black or African American'
SRRACEBA ='Race: Black or African American'
SRRACECAO='Race: American Indian or Alaska Native'
SRRACECA ='Race: American Indian or Alaska Native'
SRRACEDAO='Race: Asian'
SRRACEDA ='Race: Asian'
SRRACEEAO='Race: Native Hawaiian/other Pacific Isl.'
SRRACEEA ='Race: Native Hawaiian/other Pacific Isl.'
SRAGEA_O ='What is your age now'
SRAGEA   ='What is your age now'


S09B01A_O='Self rate of overall mental/emotional health'
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S09B01A  ='Self rate of overall mental/emotional health'
S09B02A_O='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B02A  ='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B03A_O='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B03A  ='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B04A_O='Lst yr: Rate of treatmnt/cnslng received'
S09B04A  ='Lst yr: Rate of treatmnt/cnslng received'

S09D01A_O='Have you used/tried smokeless tobacco products'
S09D01A  ='Have you used/tried smokeless tobacco products'
S09D02A_O='How often currently use smokeless tobacco products'
S09D02A  ='How often currently use smokeless tobacco products'
S09D03A_O='Do you use tobacco products other than cigarettes'
S09D03A  ='Do you use tobacco products other than cigarettes'
S09D04A_O='Lst yr: How often advised by doctor to stop'
S09D04A  ='Lst yr: How often advised by doctor to stop'

S09N11A_O='Prefer civilian or military facilities for hlth care'
S09N11A  ='Prefer civilian or military facilities for hlth care'


N1 = "Coding Scheme Note 1"
N2 = "Coding Scheme Note 2"
N3 = "Coding Scheme Note 3"
N4 = "Coding Scheme Note 4"
N5 = "Coding Scheme Note 5"
N6 = "Coding Scheme Note 6"
N7 = "Coding Scheme Note 7"
N8 = "Coding Scheme Note 8"
N9 = "Coding Scheme Note 9"
N10= "Coding Scheme Note 10"
N10A1= "Coding Scheme Note 10A1"
N11= "Coding Scheme Note 11"
N12= "Coding Scheme Note 12"
N13 = "Coding Scheme Note 13"
N14 = "Coding Scheme Note 14"
N15 = "Coding Scheme Note 15"
N16 = "Coding Scheme Note 16"
N16A1= "Coding Scheme Note 16A1"
N17A= "Coding Scheme Note 17A"
N17B= "Coding Scheme Note 17B"
N18 = "Coding Scheme Note 18"
N19 = "Coding Scheme Note 19"
N20 = "Coding Scheme Note 20"



MISS_1 = "Count of: Violates Skip Pattern"
MISS_4 = "Count of: Incomplete grid error"
MISS_5 = "Count of: Scalable reponse of Don't know"
MISS_6 = "Count of: Not applicable - valid skip"
MISS_7 = "Count of: Out-of-range error"
MISS_8 = "Count of: Multiple response error"
MISS_9 = "Count of: No response - invalid skip"
MISS_TOT = "Total number of missing responses"
XSEXA = "Male or Female  - R"
;
```

```
****************************************************************************;
*  Program:  cschm09qV3.sas
*  Written:  06/04/2001
*   Author:  C. Rankin
*
*    Input:  MERGESYN.sas7bdat - Merged MPR Sampling, DEERS, and Synovate Response Data
*   Output:  cschm09qV3.sas7bdat - Coding scheme file
*
* Modified:  9/20/2001 - Recodes removed (stored in recodes_old.sas)
*           10/31/2001 - Revised notes 16 and 17 (became notes 26 and 27)
*            3/22/2002 - Updated Variable names for Q1 2002 and added
*                        Include file RENAME.SAS to change the variable
*                        names from 01 to 02. Skipping 01 designation to make
*                        survey reflect year of fielding
*            5/09/2002 - Change to logic in TFL supplement
*            3/17/2003 - Updated Variables names for Q1 2003
*            4/11/2003 - Added note 19a to accomodate Q1 2003 error where
*                        an option on most of the questionnaires was omitted for
*                        H03062
*            3/28/2008 - Updated Variable names for Q2 FY 2008
*           12/16/2008 - Updated Variable names for Q1 FY 2009
*  Purpose:  Apply Coding Scheme Specifications to DoD Health Care Survey
*            Response Data, check for consistency in responses and skip
*            patterns
*  Include
*    files:  cschm09qV3.fmt
*
****************************************************************************;

OPTIONS PS=80 LS=120 NOCENTER COMPRESS=YES PAGENO=1 SOURCE SOURCE2;
*OPTIONS OBS=100;

LIBNAME LIBRARY    "..\..\DATA\AFINAL\FMTLIB";
LIBNAME IN      v9 "..\..\DATA\AFINAL";
LIBNAME OUT     v9 "..\..\DATA\AFINAL";

%LET INDATA=MERGESYN;
%LET OUTDATA=cschm09qV3;
%LET PERIOD=October, 2007 to September, 2008;

/* Variable names in survey -- become recoded varibles */

%Let varlist1 =

 H09001A  H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA
 H09002KA H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

 H09003A H09004A H09005A H09006A H09007A H09008A H09009A H09010A H09011A
 H09012A H09013A H09014A H09015A H09016A H09017A H09018A H09019A H09020A
 H09021A H09022A H09023A H09024A H09025A H09026A H09027A H09028A H09029A
 H09030A H09031A H09032A H09033A H09034A H09035A H09036A H09037A H09038A

 S09B01A  S09B02A  S09B03A  S09B04A

 S09D01A  S09D02A  S09D03A  S09D04A  S09D05A

 S09N11A

 H09039A H09040A H09041A H09042A H09043A H09044A H09045A H09046A H09047A H09048A

 H09049A H09050A

 S09Q01A  S09Q02A  S09Q03A  S09Q04A  S09Q05A

 H09051A H09052A H09053A H09054A H09055A H09056A H09057A H09058A

 H09059A H09060A H09061A H09063A H09064A H09065A H09066A H09067A

 H09068FA H09068IA H09069A H09070AA H09070BA H09070CA H09070DA H09070EA
 SRRACEAA SRRACEBA SRRACECA SRRACEDA SRRACEEA SRAGEA SREDAA
```

```
  ;

/*  _O variables are the original values from the survey response */

%Let varlist2 =
 H09001A_O H09002AAO H09002CAO H09002FAO H09002GAO H09002HAO H09002IAO H09002JAO
 H09002KAO H09002LAO H09002MAO H09002NAO H09002OAO H09002PAO H09002QAO H09002RAO

 H09003A_O H09004A_O H09005A_O H09006A_O H09007A_O H09008A_O H09009A_O H09010A_O
 H09011A_O H09012A_O H09013A_O H09014A_O H09015A_O H09016A_O H09017A_O H09018A_O
 H09019A_O H09020A_O H09021A_O H09022A_O H09023A_O H09024A_O H09025A_O H09026A_O
 H09027A_O H09028A_O H09029A_O H09030A_O H09031A_O H09032A_O H09033A_O H09034A_O
 H09035A_O H09036A_O H09037A_O H09038A_O

 S09B01A_O S09B02A_O S09B03A_O S09B04A_O

 S09D01A_O S09D02A_O S09D03A_O S09D04A_O S09D05A_O

 S09N11A_O

 H09039A_O H09040A_O H09041A_O H09042A_O H09043A_O H09044A_O H09045A_O H09046A_O
 H09047A_O H09048A_O H09049A_O H09050A_O

 S09Q01A_O S09Q02A_O S09Q03A_O S09Q04A_O S09Q05A_O

 H09051A_O H09052A_O H09053A_O H09054A_O
 H09055A_O H09056A_O H09057A_O H09058A_O H09059A_O H09060A_O H09061A_O H09063A_O
 H09064A_O H09065A_O H09066A_O H09067A_O

 H09068FAO H09068IAO H09069A_O H09070AAO H09070BAO H09070CAO H09070DAO H09070EAO
 SRRACEAAO SRRACEBAO SRRACECAO SRRACEDAO SRRACEEAO SRAGEA_O SREDAA_O
  ;

TITLE  "DoD 2009 Survey Form A -- &PERIOD";
TITLE2 "Apply Coding Scheme";




DATA MERGESYN;

   SET IN.MERGESYN(RENAME=(H09069A  = H09069CHA)
                  DROP=
                  H09001    H09002A H09002C H09002N H09002O H09002P H09002Q H09002F H09002G
H09002H
                  H09002I H09002J H09002K H09002M H09002R H09002L H09003  H09004  H09005  H09006
                  H09007  H09008  H09009  H09010  H09011  H09012  H09013  H09014  H09015  H09016
                  H09017  H09018  H09019  H09020  H09021  H09022  H09023  H09024  H09025  H09026
                  H09027  H09028  H09029  H09030  H09031
                  S09B01  S09B02  S09B03  S09B04  H09032  H09033  H09034  H09035  H09036  H09037
                  H09038  H09039  H09040  H09041  H09042  H09043  H09044  H09045  H09046  H09047
                  H09048  H09049  H09050  H09051  H09052  H09053  H09054  H09055
                  S09D01  S09D02  S09D03  S09D04  S09D05
                  H09056  H09057  H09058  H09059  H09060  H09061  H09062  H09063  H09064  H09065
                  H09066  H09067  H09068
                  H09069F H09069I H09070
                  SREDA   H09071A H09071B H09071C H09071D H09071E
                  SRACEA  SRACEB  SRACEC  SRACED  SRACEE SRAGE
                  H09072  H09073  H09074  S09N11
                  S09Q01  S09Q02  S09Q03  S09Q04  S09Q05
                  H09069FN H09069IN H09070N
                   );


************************************************************************;
* Code added by Jacqueline Agufa 09/15/2004 to fix name of race variable;
************************************************************************;

   RENAME SRACEAA = SRRACEAA;
   RENAME SRACEBA = SRRACEBA;
   RENAME SRACECA = SRRACECA;
   RENAME SRACEDA = SRRACEDA;
   RENAME SRACEEA = SRRACEEA;

   **** update variables with both filled items and check boxes
```

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```
     **** Per Eric Schone;


   IF H09068FA LT 1       THEN H09068FA=H09068FNA;
   IF H09068IA IN (-9,.) THEN H09068IA=H09068INA;


   H09069A= COMPRESS(H09069CHA,' ')*1;

   DROP H09069CHA;


   IF H09069A=0   AND H09069NA=-9     THEN H09069A =H09069NA;
   IF H09069A<100 AND H09069NA NE -9  THEN H09069A =H09069NA;


   *** Correct odd height and weights Per Eric Schone;

   IF H09068FA NOT IN (-9,.) THEN DO;
     IF H09068FA < 2 OR
        H09068FA > 8
     THEN H09068FA= -7;
   END;

   IF 0 <= H09069A < 40 OR
     H09069A > 500
   THEN H09069A = -7;

   IF VERSION=3 THEN OUTPUT MERGESYN;

RUN;


DATA OUT.cschm09qV3;

   LENGTH &VARLIST1. &VARLIST2. 4. MPRID $8.;
   INFORMAT &VARLIST2. 4.;
   %INCLUDE "cschm09qV3.FMT";


/* label and format statements for original variables */


    SET MERGESYN;



   ************************************************************;
   **** Recodes for invalid responses:***********************;
   ************************************************************;


/* This is a version of the coding scheme and coding tables for the
   FY 2009 HCSDB Form A.
   The following tables outline the coding of screening questions (skip),
   and subsequent items to be answered (or not answered in a series
   following a skip question.) */

/* First set up new variables that capture the original values */
/* recode the initial numeric values to the SAS numeric values */
/* specified in the coding scheme                              */

   SEX=PNSEXCD;
   AGE=INPUT(DAGEQY,8.);

   ARRAY RECODE(*) &VARLIST1;
   ARRAY   ORIG(*) &VARLIST2;

   DO I = 1 to DIM(ORIG);
       ORIG(I) = RECODE(I);
       IF ORIG(I) < 0 THEN DO;
              IF ORIG(I)= -9 THEN RECODE(I)=.;
          ELSE IF ORIG(I)= -8 THEN RECODE(I)=.A;
          ELSE IF ORIG(I)= -7 THEN RECODE(I)=.O;
```

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```
             ELSE IF ORIG(I)= -6 THEN RECODE(I)=.N;
             ELSE IF ORIG(I)= -5 THEN RECODE(I)=.D;
             ELSE IF ORIG(I)= -4 THEN RECODE(I)=.I;
             ELSE IF ORIG(I)= -1 THEN RECODE(I)=.C;
             ELSE RECODE(I)=RECODE(I);
         END;
    END;
    DROP I;



/* recode selected responses to be 1=marked, 2=unmarked */

   ARRAY   MARKED(*)
             H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA H09002KA
             H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

             H09070AA H09070BA H09070CA H09070DA H09070EA

             SRRACEAA SRRACEBA SRRACECA SRRACEDA SRRACEEA
                   ;


   ARRAY INFORMAT(*)
             H09002AAO H09002CAO H09002FAO H09002GAO H09002HAO H09002IAO
             H09002JAO H09002KAO H09002LAO H09002MAO H09002NAO H09002OAO
             H09002PAO H09002QAO H09002RAO

             H09070AAO H09070BAO H09070CAO H09070DAO H09070EAO

             SRRACEAAO SRRACEBAO SRRACECAO SRRACEDAO SRRACEEAO

                   ;


   DO J=1 TO DIM(INFORMAT);
       IF INFORMAT(J) NOT IN (.,-9) THEN MARKED(J)=1;
       ELSE MARKED(J)=2;
   END;
   DROP J;

   FORMAT
             H09002AA H09002CA H09002FA H09002GA H09002HA H09002IA H09002JA H09002KA
             H09002LA H09002MA H09002NA H09002OA H09002PA H09002QA H09002RA

             H09070AA H09070BA H09070CA H09070DA H09070EA

             SRRACEAA SRRACEBA SRRACECA SRRACEDA SRRACEEA
           MARKED.;


********************************************************************;

/*  skip coding scheme for all surveys not returned  **/

 IF FLAG_FIN NE 1 THEN GOTO NOSURVEY;

/** Note 1 -- H09006A, H09007A health plan usage  **/

  IF H09006A > 0 OR H09006A =.D THEN N1=1;
  ELSE IF H09006A=.N  THEN DO;
      IF H09007A NOT=. THEN DO;
         N1=2;
         H09007A=.C;
      END;
      ELSE DO;
         N1=3;
         H09007A=.N;
      END;
  END;
  ELSE IF H09006A=.    THEN N1=4;


/** Note 2 -- H09008A H09009A H09010A H09011A:  Personal doctor or nurse **/
```

```
IF H09008A IN (1,.) AND H09009A = .N THEN DO;
   H09008A = 2;
   H09009A =.C;
   IF H09010A=. THEN H09010A=.N;
   ELSE H09010A=.C;
   N2=1;
END;
ELSE IF H09008A IN (1) AND H09009A NE .N  THEN DO;
   IF H09010A IN (1) AND H09011A IN (1,2,3) THEN DO;
      H09011A=.C;
      N2=2;
   END;
   ELSE IF H09010A IN (.) AND H09011A IN (1,2,3) THEN DO;
      H09010A=2;
      N2=3;
   END;
   ELSE IF H09010A IN (1) AND H09011A IN (.) THEN DO;
      H09011A=.N;
      N2=4;
   END;
   ELSE IF H09010A IN (2) THEN DO;
      N2=5;
   END;
   ELSE IF H09010A IN (.) AND H09011A IN (.) THEN DO;
      N2=6;
   END;
END;
ELSE IF H09008A IN (2,.) THEN DO;
   IF H09009A NOT IN (.N, .) AND H09010A IN (1) AND H09011A IN (1,2,3)
   THEN DO;
      H09008A=1;
      H09011A=.C;
      N2=7;
   END;
   ELSE IF H09009A NOT IN (.N, .) AND H09010A IN (.) AND H09011A IN (1,2,3)
   THEN DO;
      H09008A=1;
      N2=8;
   END;
   ELSE IF H09009A NOT IN (.N, .) AND H09010A IN (.) AND H09011A IN (.)
   THEN DO;
      H09008A=1;
      N2=9;
   END;
   ELSE IF H09008A=2 AND H09009A IN (.) AND H09010A IN (1) AND H09011A IN (1,2,3)
   THEN DO;
      H09009A=.N;
      H09010A=.C;
      N2=10;
   END;
   ELSE IF H09008A = 2 AND H09009A IN (.N)
   THEN DO;
      H09009A=.C;
      IF H09010A=. THEN H09010A=.N;
      ELSE H09010A=.C;
      N2=11;
   END;
   ELSE IF H09010A IN (1) AND H09011A = .
   THEN DO;
      H09008A=1;
      H09011A=.N;
      N2=12;
   END;
   ELSE IF H09010A IN (2)
   THEN DO;
      H09008A=1;
      N2=13;
   END;
   ELSE IF H09008A=2 AND H09009A In (.) AND H09010A= . THEN DO;
      H09009A=.N;
      H09010A=.N;
      N2=14;
   END;
```

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```
      ELSE IF H09008A=. AND H09009A=. AND H09010A=1 AND H09011A IN (1,2,3)
      THEN DO;
         H09008A=1;
         H09011A=.C;
         N2=15;
      END;
      ELSE IF H09008A=. AND H09009A=. AND H09010A=. THEN DO;
         N2=16;
      END;
   END;


/** Note 3 -- H09012A, H09013A:  needed to see a specialist in last 12 months **/

   IF H09012A=1 AND H09013A IN (1,2,3,.) THEN N3=1;
   ELSE IF H09012A IN (1,.) AND H09013A=.N THEN DO;
      H09012A=2;
      H09013A=.C;
      N3=2;
   END;
   ELSE IF H09012A IN (2,.) AND H09013A IN (1,2,3) THEN DO;
      H09012A=1;
      N3=3;
   END;
   ELSE IF H09012A=2 AND H09013A IN (.,.N) THEN DO;
      IF H09013A=. THEN H09013A=.N;
      ELSE H09013A=.C;
      N3=4;
   END;
   ELSE IF H09012A=.  AND H09013A=.  THEN N3=5;


/** Note 4 -- H09014A, H09015A: saw a specialist in last 12 months **/

   IF H09014A=1 AND H09015A IN (0,1,2,3,4,5,6,7,8,9,10,.) THEN N4=1;
   ELSE IF H09014A IN (1,.) AND H09015A=.N THEN DO;
      H09014A=2;
      H09015A=.C;
      N4=2;
   END;
   ELSE IF H09014A IN (2,.) AND H09015A IN (0,1,2,3,4,5,6,7,8,9,10) THEN DO;
      H09014A=1;
      N4=3;
   END;
   ELSE IF H09014A=2 AND H09015A IN (.,.N) THEN DO;
      IF H09015A=. THEN H09015A=.N;
      ELSE H09015A=.C;
      N4=4;
   END;
   ELSE IF H09014A=.  AND H09015A=.  THEN N4=5;


/** Note 5 -- called a doctor's office:  H09016A, H09017A **/

   IF H09016A=1 AND H09017A IN (1,2,3,4,.) THEN N5=1;
   ELSE IF H09016A IN (1,.) AND H09017A=.N THEN DO;
      H09016A=2;
      H09017A=.C;
      N5=2;
   END;
   ELSE IF H09016A IN (2,.) AND H09017A IN (1,2,3,4) THEN DO;
      H09016A=1;
      N5=3;
   END;
   ELSE IF H09016A=2 AND H09017A IN (.,.N) THEN DO;
      IF H09017A=. THEN H09017A=.N;
      ELSE H09017A=.C;
      N5=4;
   END;
   ELSE IF H09016A=.  AND H09017A=.  THEN N5=5;
```

```
/** Note 6 -- H09018A,H09019A,H09020A:  illness or injury **/

  ARRAY NOTE6 H09019A H09020A;
  N6MARK=0;
  N6NMISS=0;
  N6NN=0;

  DO OVER NOTE6;
     IF NOTE6 NE . THEN N6NMISS+1;
     IF NOTE6 NOT IN (.N,.) THEN N6MARK+1;
     IF NOTE6 EQ .N THEN N6NN+1;
  END;


  IF H09018A=1 AND N6NMISS=0 THEN DO;
       N6=1;
  END;
  ELSE IF H09018A IN (1,.) AND N6NMISS>0 AND N6MARK=0 THEN DO;
     H09018A=2;
     N6=2;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
  END;
  ELSE IF H09018A=1 AND N6MARK=1 AND N6NN=1 THEN  DO;
     DO OVER NOTE6;
        IF NOTE6=.N THEN NOTE6=.;
     END;
     N6=3;
  END;
  ELSE IF H09018A=1 AND N6MARK>0 THEN DO;
     N6=4;
  END;
  ELSE IF H09018A=2 AND N6MARK=1 AND N6NN=1  THEN  DO;
     H09019A=.C;
     H09020A=.C;
     N6=5;
  END;
  ELSE IF H09018A IN (2,.) AND N6MARK>0 THEN DO;
     H09018A=1;
     N6=6;
     DO OVER NOTE6;
        IF NOTE6=.N THEN NOTE6=.;
     END;
  END;
  ELSE IF H09018A=2 AND (N6NMISS=0 OR (N6NMISS>0 AND N6MARK=0)) THEN DO;
     N6=7;
     DO OVER NOTE6;
        IF NOTE6=. THEN NOTE6=.N;
        ELSE NOTE6=.C;
     END;
  END;
  ELSE IF H09018A=.  AND N6NMISS=0 THEN N6=8;


  DROP N6NMISS N6MARK N6NN;


/** Note 7 -- H09021A,H09022A,H09023A:  regular or routine healthcare **/

  ARRAY NOTE7 H09022A H09023A;
  N7MARK=0;
  N7NMISS=0;
  N7NN=0;

  DO OVER NOTE7;
     IF NOTE7 NE . THEN N7NMISS+1;
     IF NOTE7 NOT IN (.N,.) THEN N7MARK+1;
     IF NOTE7 EQ .N THEN N7NN+1;
  END;
```

```
     IF H09021A=1 AND N7NMISS=0 THEN DO;
         N7=1;
     END;
     ELSE IF H09021A IN (1,.) AND N7NMISS>0 AND N7MARK=0 THEN DO;
        H09021A=2;
        N7=2;
        DO OVER NOTE7;
           IF NOTE7=. THEN NOTE7=.N;
           ELSE NOTE7=.C;
        END;
     END;
     ELSE IF H09021A=1 AND N7MARK=1 AND N7NN=1 THEN  DO;
        DO OVER NOTE7;
           IF NOTE7=.N THEN NOTE7=.;
        END;
        N7=3;
     END;
     ELSE IF H09021A=1 AND N7MARK>0 THEN DO;
        N7=4;
     END;
     ELSE IF H09021A=2 AND N7MARK=1 AND N7NN=1  THEN  DO;
        H09022A=.C;
        H09023A=.C;
        N7=5;
     END;
     ELSE IF H09021A IN (2,.) AND N7MARK>0 THEN DO;
        H09021A=1;
        N7=6;
        DO OVER NOTE7;
           IF NOTE7=.N THEN NOTE7=.;
        END;
     END;
     ELSE IF H09021A=2 AND (N7NMISS=0 OR (N7NMISS>0 AND N7MARK=0)) THEN DO;
        N7=7;
        DO OVER NOTE7;
           IF NOTE7=. THEN NOTE7=.N;
           ELSE NOTE7=.C;
        END;
     END;
     ELSE IF H09021A=.  AND N7NMISS=0 THEN N7=8;


     DROP N7NMISS N7MARK N7NN;



 /** Note 8 -- H09025A, H09026A-H09037A: doctor's office or clinic **/

   ARRAY NOTE8  H09026A--H09037A;

   N8MARK=0;
   N8NMISS=0;

   DO OVER NOTE8;
      IF NOTE8 NE . THEN N8NMISS+1;
      IF NOTE8 NOT IN  (., .N) THEN N8MARK+1;
   END;


   IF H09025A=1 THEN DO;
      N8=1;
      DO OVER NOTE8;
         IF NOTE8=. THEN NOTE8=.N;
         ELSE NOTE8=.C;
      END;
   END;
   ELSE IF H09025A IN (2,3,4,5,6,7,.) AND N8NMISS>0 AND N8MARK=0 THEN DO;
      H09025A=1;
      N8=2;
      DO OVER NOTE8;
         IF NOTE8=. THEN NOTE8=.N;
         ELSE NOTE8=.C;
      END;
   END;
```

```
    ELSE IF H09025A IN (2,3,4,5,6,7) AND (N8NMISS=0 OR N8MARK>0) THEN DO;
       DO OVER NOTE8;
          IF NOTE8=.N THEN NOTE8=.;
       END;
       N8=3;
    END;
    ELSE IF H09025A=.  AND N8NMISS=0 THEN N8=4;
    ELSE IF H09025A IN (.) AND N8MARK>0 THEN DO;
       N8=5;
       DO OVER NOTE8;
          IF NOTE8=.N THEN NOTE8=.;
       END;
    END;


    DROP N8NMISS N8MARK;



/** Note 9 -- You or doctor believed you needed care, tests or treatment:
               H09026A, H09027A **/


    IF H09026A IN (.N, .C) THEN N9=1;
    ELSE IF H09026A=1 AND H09027A IN (1,2,3,.) THEN N9=2;
    ELSE IF H09026A IN (1,.) AND H09027A=.N THEN DO;
       H09026A=2;
       H09027A=.C;
       N9=3;
    END;
    ELSE IF H09026A IN (2,.) AND H09027A IN (1,2,3) THEN DO;
       H09026A=1;
       N9=4;
    END;
    ELSE IF H09026A=2 AND H09027A IN (.,.N) THEN DO;
       IF H09027A=. THEN H09027A=.N;
       ELSE H09027A=.C;
       N9=5;
    END;
    ELSE IF H09026A=.  AND H09027A=.  THEN N9=6;



/** Note 10 -- Needed approval from healthplan for care, tests or treatment:
               H09028A, H09029A **/

    IF H09028A IN (.N, .C) THEN N10=1;
    ELSE IF H09028A=1 AND H09029A IN (1,2,3,.) THEN N10=2;
    ELSE IF H09028A IN (1,.) AND H09029A=.N THEN DO;
       H09028A=2;
       H09029A=.C;
       N10=3;
    END;
    ELSE IF H09028A IN (2,.) AND H09029A IN (1,2,3) THEN DO;
       H09028A=1;
       N10=4;
    END;
    ELSE IF H09028A=2 AND H09029A IN (.,.N) THEN DO;
       IF H09029A=. THEN H09029A=.N;
       ELSE H09029A=.C;
       N10=5;
    END;
    ELSE IF H09028A=.  AND H09029A=.  THEN N10=6;


/** Note 10A1 -- S09B02A, S09B03A-S09B04A: overall mental health **/

    ARRAY NOTE10A1  S09B03A--S09B04A;

    N10A1MARK=0;
    N10A1NMISS=0;

    DO OVER NOTE10A1;
       IF NOTE10A1 NE . THEN N10A1NMISS+1;
       IF NOTE10A1 NOT IN  (., .N) THEN N10A1MARK+1;
```

```
        END;

    IF S09B02A = 1 THEN DO;
        DO OVER NOTE10A1;
            IF NOTE10A1=.N THEN NOTE10A1=.;
        END;
        N10A1=1;
    END;
    ELSE IF S09B02A IN (2,.) AND (N10A1MARK>0) THEN DO;
        N10A1=2;
        S09B02A=1;
    END;
    ELSE IF S09B02A=2  AND (N10A1NMISS=0 OR (N10A1NMISS > 0 AND N10A1MARK = 0)) THEN DO;
        N10A1=3;
        DO OVER NOTE10A1;
            IF NOTE10A1 = . THEN NOTE10A1=.N;
            ELSE NOTE10A1 = .C;
        END;
    END;
    ELSE IF S09B02A IN (.) AND (N10A1NMISS > 0 AND N10A1MARK = 0) THEN DO;
        N10A1=4;
        S09B02A=2;
        DO OVER NOTE10A1;
            IF NOTE10A1 = . THEN NOTE10A1=.N;
            ELSE NOTE10A1 = .C;
        END;
    END;
    ELSE IF S09B02A IN (.) AND N10A1NMISS=0 THEN N10A1=5;

    DROP N10A1NMISS N10A1MARK;


/** Note 11 -- H09039A, H09040A-H09041A: claims to health plan **/

    ARRAY NOTE11 H09040A--H09041A;
    N11MARK=0;
    N11NMISS=0;
    N11NDK=0;

    DO OVER NOTE11;
        IF NOTE11 NE . THEN N11NMISS+1;
        IF NOTE11 NOT IN (.N,.D,.) THEN N11MARK+1;
        IF NOTE11 NOT IN (.,.D) THEN N11NDK+1;
    END;

    IF H09039A=1 AND
        (N11NMISS=0 OR N11MARK>0 OR N11NDK=0)
    THEN DO;
        N11=1;
        DO OVER NOTE11;
            IF NOTE11=.N THEN NOTE11=.;
        END;
    END;
    ELSE IF H09039A IN (1,.,.D) AND N11NMISS>0 AND N11MARK=0 AND N11NDK>0 THEN DO;
        N11=2;
        H09039A=2;
        DO OVER NOTE11;
            IF NOTE11=. THEN NOTE11=.N;
            ELSE NOTE11=.C;
        END;
    END;
    ELSE IF H09039A IN (2,.,.D) AND N11MARK>0
            THEN DO;
        H09039A=1;
        N11=3;
        DO OVER NOTE11;
            IF NOTE11=.N THEN NOTE11=.;
        END;
    END;
    ELSE IF H09039A IN (2) AND N11MARK=0 THEN DO;
        N11=4;
        DO OVER NOTE11;
            IF NOTE11=. THEN NOTE11=.N;
            ELSE NOTE11=.C;
```

```
        END;
     END;
   ELSE IF H09039A IN (.D) AND (N11NMISS=0 OR N11NDK=0) THEN DO;
      N11=5;
      DO OVER NOTE11;
          IF NOTE11=. THEN NOTE11=.N;
          ELSE NOTE11=.C;
      END;
   END;
   ELSE IF H09039A IN (.)  AND (N11NMISS=0 OR N11NDK=0) THEN N11=6;

   DROP N11NMISS N11MARK N11NDK;


/** NOTE12  -- H09042A, H09043A: **/

   IF H09042A=1 AND H09043A IN (1,2,3,.) THEN N12=1;
   ELSE IF H09042A IN (1,.) AND H09043A=.N THEN DO;
      H09042A=2;
      H09043A=.C;
      N12=2;
   END;
   ELSE IF H09042A IN (2,.) AND H09043A IN (1,2,3) THEN DO;     /* JMA per Daisy's suggestion
3/20/03  */
      H09042A=1;
      N12=3;
   END;
   ELSE IF H09042A=2 AND H09043A IN (.N,.) THEN DO;
      IF H09043A=. THEN H09043A=.N;
      ELSE H09043A=.C;
      N12=4;
   END;
   ELSE IF H09042A=. AND H09043A=. THEN N12=5;


/** NOTE13 -- H09044A, H09045A: health plan's customer service **/

   IF H09044A=1 AND H09045A IN (1,2,3,.) THEN N13=1;
   ELSE IF H09044A IN (1,.) AND H09045A=.N THEN DO;
      H09044A=2;
      H09045A=.C;
      N13=2;
   END;
   ELSE IF H09044A IN (2,.) AND H09045A IN (1,2,3) THEN DO;
      H09044A=1;
      N13=3;
   END;
   ELSE IF H09044A=2 AND H09045A IN (.N,.) THEN DO;
      IF H09045A=. THEN H09045A=.N;
      ELSE H09045A=.C;
      N13=4;
   END;
   ELSE IF H09044A=. AND H09045A=. THEN N13=5;


/** NOTE14  -- H09046A, H09047A: paperwork  **/

   IF H09046A=1 AND H09047A IN (1,2,3,.) THEN N14=1;
   ELSE IF H09046A IN (1,.) AND H09047A=.N THEN DO;
      H09046A=2;
      H09047A=.C;
      N14=2;
   END;
   ELSE IF H09046A IN (2,.) AND H09047A IN (1,2,3) THEN DO;
      H09046A=1;
      N14=3;
   END;
   ELSE IF H09046A=2 AND H09047A IN (.N,.)THEN DO;
      IF H09047A=. THEN  H09047A=.N;
      ELSE H09047A=.C;
      N14=4;
   END;
   ELSE IF H09046A=.  AND H09047A=. THEN N14=5;
```

```
/** NOTE14A1  -- S09Q01A, S09Q02A: Blood stool test   **/

  IF S09Q01A=1 AND S09Q02A IN (1,2,3,4,.,.D) THEN N14A1=1;
  ELSE IF S09Q01A IN (1,.) AND S09Q02A=.N THEN DO;
     S09Q01A=2;
     S09Q02A=.C;
     N14A1=2;
  END;
  ELSE IF S09Q01A IN (2,.D, .) AND S09Q02A IN (1,2,3,4) THEN DO;
     S09Q01A=1;
     N14A1=3;
  END;
  ELSE IF S09Q01A IN (2, .D) AND S09Q02A IN (.N,.,.D) THEN DO;
     IF S09Q02A=. THEN  S09Q02A=.N;
     ELSE S09Q02A=.C;
     N14A1=4;
  END;
  ELSE IF S09Q01A=.  AND S09Q02A IN (., .D)  THEN N14A1=5;


/** Note 14A2 -- S09Q03A, S09Q04A-S09Q05A: Sigmoidoscopy and colonoscopy **/

   ARRAY NOTE14A2 S09Q04A S09Q05A;
  N14A2MARK=0;
  N14A2NMISS=0;
  N14A2NDK=0;

  DO OVER NOTE14A2;
     IF NOTE14A2 NE . THEN N14A2NMISS+1;
     IF NOTE14A2 NOT IN (.N,.) THEN N14A2MARK+1;
     IF NOTE14A2 NOT IN (.,.D) THEN N14A2NDK+1;
  END;

  IF S09Q03A=1 AND
     (N14A2NMISS=0 OR (N14A2MARK>0 and N14A2NDK>0) or (N14A2NMISS>0 AND N14A2NDK=0))
  THEN DO;
     N14A2=1;
  END;
  ELSE IF S09Q03A IN (1,.,.D) AND N14A2NMISS>0 AND N14A2MARK=0 THEN DO;
     N14A2=2;
     S09Q03A=2;
     DO OVER NOTE14A2;
        IF NOTE14A2=. THEN NOTE14A2=.N;
        ELSE NOTE14A2=.C;
     END;
  END;
  ELSE IF S09Q03A IN (2,.,.D) AND
         ((N14A2MARK>0 AND N14A2NDK>0) OR (N14A2NMISS>0 AND N14A2NDK=0))
       THEN DO;
     S09Q03A=1;
     N14A2=3;
  END;
  ELSE IF S09Q03A IN (2) AND (N14A2NMISS=0 OR (N14A2NMISS>0 AND N14A2MARK=0)) THEN DO;
     N14A2=4;
     DO OVER NOTE14A2;
        IF NOTE14A2=. THEN NOTE14A2=.N;
        ELSE NOTE14A2=.C;
     END;
  END;
  ELSE IF S09Q03A IN (.D) AND N14A2NMISS=0 THEN DO;
     N14A2=5;
     DO OVER NOTE14A2;
        NOTE14A2=.N;
     END;
  END;
  ELSE IF S09Q03A IN (.)  AND N14A2NMISS=0 THEN N14A2=6;

  DROP N14A2NMISS N14A2MARK N14A2NDK;


/** Note 15 -- smoking:  H09052A, H09053A-H09057A  **/

  ARRAY NOTE15 H09055A H09056A H09057A;
```

```
IF H09052A=1 and H09053A IN (3,4) THEN DO;  /* still smoke */
   IF H09054A NE . THEN H09054A=.C;
   ELSE H09054A=.N;

   N15=1;
END;
ELSE IF H09052A=1 AND H09053A=2 THEN DO;           /* quit */
   /* JMA March 25 2004,
      Updated because H09056A and H09057A have been added to the
      skip pattern */
   IF H09054A IN (2,.D) THEN DO;                /* > 1 year ago */
      DO OVER NOTE15;
         IF NOTE15=. THEN NOTE15=.N;
         ELSE NOTE15=.C;
      END;
      N15=2;
   END;
   ELSE IF H09054A IN (3,.) THEN DO;          /* < 1 year ago */

      N15=3;

   END;
END;
ELSE IF H09052A=1 AND H09053A IN (.D,.) THEN DO;  /* don't know */
   IF H09054A=2 THEN DO;                          /* > 1 year ago */

      /* JMA March 25 2004,
         Updated because H09056A and H09057A have been added to the
         skip pattern */

      DO OVER NOTE15;
         IF NOTE15=. THEN NOTE15=.N;
         ELSE NOTE15=.C;
      END;
      H09053A=2;
      N15=4;
   END;
   ELSE IF H09054A=3 THEN DO;             /* < 1 year ago */
      H09053A=2;
      N15=5;
   END;
   ELSE IF H09053A IN (.D) AND H09054A IN (.D,.) THEN DO;
      N15=6;
      IF H09054A=. THEN H09054A=.N;
      ELSE H09054A=.C;
      DO OVER NOTE15;
         IF NOTE15=. THEN NOTE15=.N;
         ELSE NOTE15=.C;
      END;
   END;
   ELSE IF H09053A IN (.) AND H09054A IN (.D) THEN DO;
      N15=7;
      DO OVER NOTE15;
         IF NOTE15=. THEN NOTE15=.N;
         ELSE NOTE15=.C;
      END;
   END;
   ELSE IF H09053A IN (.) AND H09054A IN (.) THEN DO;
      N15=8;
   END;
END;
ELSE IF H09052A IN (2,.D,.) AND H09053A IN (3,4) THEN DO;
   H09052A=1;

   IF H09054A NE . THEN H09054A=.C;
   ELSE H09054A=.N;


   N15=9;
END;
ELSE IF H09052A IN (2,.D) AND H09053A IN (2,.D, .) THEN DO; /*never smoke*/
   /* JMA March 25 2004,
      Updated because H09056A and H09057A have been added to the
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```
        skip pattern */

    IF H09053A NE . THEN H09053A =.C;
    ELSE H09053A=.N;

    IF H09054A NE . THEN H09054A =.C;
    ELSE H09054A=.N;

    DO OVER NOTE15;
        IF NOTE15=. THEN NOTE15=.N;
        ELSE NOTE15=.C;
    END;

    N15=10;
  END;
  ELSE IF H09052A IN ( .) THEN DO;
    IF (H09053A IN (2) AND
         H09054A IN (.) AND
        (H09055A IN (2,3,4,5) OR H09056A IN (2,3,4,5) OR H09057A IN (2,3,4,5)))
    THEN DO;
        /* JMA March 25 2004,
           Updated because H09056A and H09057A have been added to the
           skip pattern */

        H09052A=1;
        H09054A=3;
        N15=11;
    END;
    ELSE IF H09053A IN (2,.) THEN DO; /*MRE/blank*/
        IF H09054A IN (2, .D) THEN DO;
            /* JMA March 25 2004,
               Updated because H09056A and H09057A have been added to the
               skip pattern */

            DO OVER NOTE15;
                IF NOTE15=. THEN NOTE15=.N;
                ELSE NOTE15=.C;
            END;
            N15=12;
        END;
        ELSE IF H09054A IN (3,.) THEN DO;
            IF (H09055A IN (2,3,4,5) OR H09056A IN (2,3,4,5) OR H09057A IN (2,3,4,5))
            THEN DO;
                H09052A=1;
                N15=13;
            END;
            ELSE DO;

                N15=14;
            END;
        END;
    END;
    ELSE IF H09053A=.D THEN DO; /*MRE/blank*/
        /* JMA March 25 2004,
           Updated because H09056A and H09057A have been added to the
           skip pattern */

        IF H09054A NE . THEN H09054A =.C;
        ELSE H09054A=.N;

        DO OVER NOTE15;
            IF NOTE15=. THEN NOTE15=.N;
            ELSE NOTE15=.C;
        END;

        N15=15;
    END;
  END;


/** Note 16 -- advice from doctor on smoking:  H09055A-H09057A  **/

  IF H09055A EQ .N THEN DO;                /* jma Sep 19 2006 */
     IF H09056A IN (.,.N) THEN H09056A = .N;
```

```
      ELSE H09056A=.C;
      IF H09057A IN (.,.N) THEN H09057A = .N;
      ELSE H09057A=.C;
      N16=1;
   END;
   ELSE IF H09055A EQ .C THEN DO;                 /* jma fEB 19 2008 */
      N16=2;
   END;
   ELSE IF H09055A EQ 1 AND (H09056A =.N AND H09057A=.N) THEN DO; /* jma May 10 2007 */
      H09056A = 1;
      H09057A = 1;
      N16=3;
   END;
   ELSE IF H09055A EQ 1 AND (H09056A =.N) THEN DO; /* jma May 10 2007 */
      H09056A = 1;
      N16=4;
   END;
   ELSE IF H09055A EQ 1 AND (H09057A=.N) THEN DO; /* jma May 10 2007 */
      H09057A = 1;
      N16=5;
   END;
   ELSE IF H09055A IN (2,3,4,5,.) AND (H09056A =.N AND H09057A= .N) THEN DO; /* jma May 10 2007
*/
      H09056A = .;
      H09057A = .;
      N16=6;
   END;
   ELSE IF H09055A IN (2,3,4,5,.) AND (H09056A =.N) THEN DO; /* jma May 10 2007 */
      H09056A = .;
      N16=7;
   END;
   ELSE IF H09055A IN (2,3,4,5,.) AND (H09057A= .N) THEN DO; /* jma May 10 2007 */
      H09057A = .;
      N16=8;
   END;
   ELSE IF H09055A GE 1 AND (H09056A > H09055A AND H09057A > H09055A) THEN DO; /* jma May 10
2007 */
      H09056A = H09055A;
      H09057A = H09055A;
      N16=9;
   END;
   ELSE IF H09055A GE 1 AND (H09056A > H09055A) THEN DO; /* jma May 10 2007 */
      H09056A = H09055A;
      N16=10;
   END;
   ELSE IF H09055A GE 1 AND (H09057A > H09055A) THEN DO; /* jma May 10 2007 */
      H09057A = H09055A;
      N16=11;
   END;
   ELSE IF H09055A GE 1 AND ((H09056A <= H09055A or H09056A = . ) AND (H09057A <= H09055A or
H09057A=.))
   THEN DO; /* jma Feb 19 2007 */
      N16=12;
   END;
   ELSE IF (H09055A=. AND H09056A IN (1,2,3,4,5,.) AND H09057A IN (1,2,3,4,5,.))
   THEN DO; /* jma Feb 19 2007 */
      N16=13;
   END;


/** Note 16A1 -- S09D01A, S09D02A, S09D05A: chewing tobacco **/


   IF S09D01A=1 AND S09D02A IN (1,2,.) THEN DO;
      N16A1=1;
   END;
   ELSE IF S09D01A IN (1,.) AND S09D02A=3 THEN DO;
      N16A1=2;
      IF S09D05A IN (.) THEN S09D05A = .N;
      ELSE S09D05A = .C;
   END;
   ELSE IF S09D01A IN (2,.,.D) AND S09D02A IN (1,2) THEN DO;
      N16A1=3;
      S09D01A=1;
```

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```
      END;
      ELSE IF S09D01A IN (2,.D) AND S09D02A IN (3,.) THEN DO;
         N16A1=4;
         IF S09D02A IN (3) THEN S09D02A = .C;
         ELSE S09D02A = .N;
         IF S09D05A IN (.) THEN S09D05A = .N;
         ELSE S09D05A = .C;
      END;
      ELSE IF S09D01A IN (.) AND S09D02A IN (.) THEN DO;
         N16A1=5;
      END;




/** Note 17 - gender H09058A, SEX, H09059A--H09065A,
               XSEXA */

/* 1/21/98 use SRSEX & responses to gender specific questions
    if there is discrepancy between SRSEX and SEX */
/* set imputed FMALE based on gender specific questions */


   ARRAY fmaleval H09059A H09060A H09061A H09063A H09064A H09065A
                   ;

   cntfmale=0;
   DO OVER fmaleval;                /* mammogram/pap smear/PREGNANT*/
      IF fmaleval>0 THEN cntfmale=cntfmale+1;
   END;

   IF cntfmale>0 THEN FMALE=1;
   ELSE FMALE = 0;


   IF H09058A=. THEN DO;
      IF (SEX='F' AND FMALE) THEN DO;
         N17a=1;
         XSEXA=2;
      END;
      ELSE IF (SEX='F' AND FMALE=0) THEN DO;
         N17a=2;
         XSEXA=2;
      END;
      ELSE IF (SEX='M' AND FMALE) THEN DO;
         N17a=3;
         XSEXA=1;
      END;
      ELSE IF (SEX='M' AND FMALE=0) THEN DO;
         N17a=4;
         XSEXA=1;
      END;
      ELSE IF ((SEX IN ('Z',' ') AND FMALE)) THEN DO;
         N17a=5;
         XSEXA=2;
      END;
      ELSE IF (SEX='Z' AND FMALE=0) THEN DO;
         N17a=6;
         XSEXA=.;
      END;
      ELSE IF (SEX=' ' AND FMALE=0) THEN DO;
         N17a=7;
         XSEXA=.;
      END;
   END;
   ELSE IF (H09058A=1) THEN DO;
      IF FMALE=0 THEN DO;
         N17a=8;
         XSEXA=1;
      END;
      ELSE IF FMALE THEN DO;
         IF SEX='F' THEN DO;
            N17a=9;
            XSEXA=2;
         END;
```

```
            ELSE DO;
               N17a=10;
               XSEXA=1;
            END;
         END;
      END;
   ELSE IF (H09058A=2) THEN DO;
      IF FMALE THEN DO;
        N17a=11;
         XSEXA=2;
      END;
      ELSE IF FMALE=0 THEN DO;
         IF SEX='M' THEN DO;
           N17a=12;
            XSEXA=1;
         END;
         ELSE DO;
            N17a=13;
            XSEXA=2;
         END;
      END;
   END;


/* Note 17b - gender vs mammogram/paps/pregnancy */

   ARRAY NOTE17B H09059A H09060A H09061A H09063A H09064A H09065A
                 ;
   IF XSEXA=1 THEN DO;   /* male */
      IF FMALE=0 THEN DO;
         N17b=1;
         DO OVER NOTE17b;
            NOTE17b=.N;
         END;
      END;   /* valid skip */
      ELSE IF FMALE=1 THEN DO;
         N17b=2;
         DO OVER NOTE17b;
            IF NOTE17b=. THEN NOTE17b = .N;
            ELSE NOTE17b=.C;
         END;
      END;   /* inconsistent response */
   END;
   ELSE IF XSEXA=2 THEN  N17b=3; /* female */
   ELSE IF XSEXA=. THEN DO;      /*  missing sex  */
      N17b=4;
      DO OVER NOTE17b;
         NOTE17b=.;
      END;
   END;


   DROP FMALE CNTFMALE;


/* Note 18 - breast exam for female 40 or over  */

   IF XSEXA=1 THEN DO;  /* male */
      IF  (H09060A=.C OR H09060A=.N) AND (H09061A=.C OR H09061A=.N)
      THEN N18 = 1;
   END;
   ELSE IF XSEXA=2 THEN DO;
      IF H09060A=2 THEN N18=2;          /* female 40 or over */
      ELSE IF H09060A=1 THEN DO;   /* female < 40 */
         IF H09061A NE . THEN H09061A=.C;
         ELSE H09061A=.N;
         N18=3;
      END;
      ELSE IF H09060A=. THEN DO;
         IF H09061A NE . THEN DO;
            H09060A=2;
            N18=4;
         END;
         ELSE IF H09061A=.  THEN DO;
```

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```
                IF AGE<40 THEN DO;
                   H09060A = 1;
                   H09061A=.N;
                   N18=5;
                END;
                ELSE IF AGE >= 40 THEN DO;
                   H09060A=2;
                   N18=6;
                END;
                ELSE IF AGE=. THEN N18=7;
             END;
        END;
    END;
  ELSE IF XSEXA=. THEN N18=8;



/* Note 19 - gender vs Pregnancy */


  IF XSEXA=1 THEN N19=1;            /* male    */
  ELSE IF XSEXA=2 THEN DO;          /* female  */
     IF H09063A=1 THEN DO;            /* pregnant */
        IF H09064A=1 THEN DO;
           N19=2;
           IF H09065A=. THEN H09065A = .N;
           ELSE H09065A=.C;
        END;
        ELSE IF H09064A=2 AND H09065A IN (2) THEN DO;
           N19=3;
           H09065A=.;
        END;
        ELSE IF H09064A=2 AND H09065A IN (4,3,1,.) THEN DO;
           N19=4;
        END;
        ELSE IF H09064A IN (3,.) THEN N19=5;
     END;
     ELSE IF H09063A=2 THEN DO;
        IF H09064A=. THEN H09064A = .N;
        ELSE H09064A=.C;
        N19=6;
     END;
     ELSE IF H09063A=3 THEN DO;
        N19=7;
        IF H09064A=. THEN H09064A = .N;
        ELSE H09064A=.C;
        IF H09065A=. THEN H09065A=.N;
        ELSE H09065A=.C;
     END;
     ELSE IF H09063A IN (.) THEN DO;
        IF H09064A=1 THEN DO;
           N19=8;
           H09063A=1;
           IF H09065A=. THEN H09065A = .N;
           ELSE H09065A=.C;
        END;
        ELSE IF H09064A=2 AND H09065A IN (2) THEN DO;
           N19=9;
           H09063A=1;
           H09065A=.;
        END;
        ELSE IF H09064A=2 AND H09065A IN (4,3,1,.) THEN DO;
           H09063A=1;
           N19=10;
        END;
        ELSE IF H09064A=3 THEN DO;
           H09063A=1;
           N19=11;
        END;
        ELSE IF H09064A=. THEN DO;
           N19=12;
        END;
     END;
  END;
```

```
   ELSE IF XSEXA=. AND H09063A IN (.) THEN N19=13;



   DROP AGE SEX;



/** Note 20 -- H09070A, H09070AA-H09070EA: Hispanic or Latino origin or descent **/

   /* JMA
   ****Multiple responses were given to this question so H09070A is being created
   ****from the multiple responses.;
   */


   IF H09070BA=1 THEN DO;
      N20=1;
      H09070A=2;
   END;
   ELSE IF H09070EA=1 THEN DO;
      N20=2;
      H09070A=5;
   END;
   ELSE IF H09070CA=1 THEN DO;
      N20=3;
      H09070A=3;
   END;
   ELSE IF H09070DA=1 THEN DO;
      N20=4;
      H09070A=4;
   END;
   ELSE IF H09070AA=1 THEN DO;
      N20=5;
      H09070A=1;
   END;
   ELSE IF H09070AA IN (2,.) AND H09070BA IN (2,.) AND H09070CA IN (2,.) AND
          H09070DA IN (2,.) AND H09070EA IN (2,.) THEN DO;
      N20=6;
      H09070A=.;

   END;



NOSURVEY:

/* missing values */

   ARRAY MISS MISS_9 MISS_8 MISS_7 MISS_6 MISS_5 MISS_4 MISS_1 ;
   MISS_TOT=0;
   DO OVER MISS;
      MISS = 0;
   END;
   ARRAY MISSARAY &VARLIST2.;

   DO OVER MISSARAY;
      IF (MISSARAY EQ -9 ) THEN MISS_9 = MISS_9 + 1;
      ELSE IF (MISSARAY EQ -8) THEN MISS_8 = MISS_8 + 1;
      ELSE IF (MISSARAY EQ -7) THEN MISS_7 = MISS_7 + 1;
      ELSE IF (MISSARAY EQ -6) THEN MISS_6 = MISS_6 + 1;
      ELSE IF (MISSARAY EQ -5) THEN MISS_5 = MISS_5 + 1;
      ELSE IF (MISSARAY EQ -4) THEN MISS_4 = MISS_4 + 1;
      ELSE IF (MISSARAY EQ -1) THEN MISS_1 = MISS_1 + 1;
   END;
   DO OVER MISS;
      MISS_TOT=MISS_TOT + MISS;
   END;

*****************************************;

 OUTPUT;

RUN;
```

```
proc contents data=out.cschm09qV3;
run;
```

```
/*  Formats for original answers to survey questions,
     after variables have been recoded */

        FORMAT H09001A   H09001A_O YN.
               H09003A   H09003A_O MEDA.
               H09004A   H09004A_O MEDB.
               H09005A   H09005A_O MEDSUPP.
               H09006A   H09006A_O HPLAN1_.
               H09007A   H09007A_O HPTIME.

               H09008A H09008A_O   H09010A H09010A_O   H09012A H09012A_O
               H09014A H09014A_O   H09016A H09016A_O   H09018A H09018A_O
               H09021A H09021A_O   H09026A H09026A_O   H09028A H09028A_O
                 YN.


               H09009A   H09009A_O RATE1_.
               H09011A   H09011A_O PROB1_.
               H09013A   H09013A_O PROB2_.
               H09015A   H09015A_O RATE2_.
               H09017A   H09017A_O OFTEN1_.
               H09019A   H09019A_O OFTEN2_.
               H09020A   H09020A_O TIME1_.
               H09022A   H09022A_O OFTEN3_.
               H09023A   H09023A_O TIME2_.
               H09024A   H09024A_O OFTEN4_.
               H09025A   H09025A_O OFTEN4_.

               H09027A   H09027A_O PROB3_.
               H09029A   H09029A_O PROB3a.

               H09030A--H09036A   H09030A_O--H09036A_O OFTEN5_.

               H09037A   H09037A_O RATE3_.

               H09038A   H09038A_O PLACE.

               S09B01A S09B01A_O MNTLHLTH.
               S09B02A S09B02A_O YN.
               S09B03A S09B03A_O PROB1_.
               S09B04A S09B04A_O RATE5_.

               S09D01A S09D01A_O YNDNK.
               S09D02A S09D02A_O TIME15_.
               S09D03A S09D03A_O YNDNK.
               S09D04A S09D04A_O VISIT.
               S09D05A S09D05A_O POUCH.

               S09N11A S09N11A_O S09N11_.

               S09Q01A S09Q01A_O YNdnk.
               S09Q02A S09Q02A_O colon1_.
               S09Q03A S09Q03A_O YNdnk.
               S09Q04A S09Q04A_O colon2_.
               S09Q05A S09Q05A_O colon3_.

               H09039A   H09039A_O YNDNK.

               H09040A--H09041A  H09040A_O--H09041A_O OFTEN6_.

               H09042A H09042A_O   H09044A H09044A_O
               H09046A H09046A_O   H09060A H09060A_O
               H09067A H09067A_O
                 YN.

               H09043A   H09043A_O PROB8_.
               H09045A   H09045A_O PROB9_.
               H09047A   H09047A_O PROB10_.
               H09048A   H09048A_O RATE4_.
```

```
        H09049A    H09049A_O TIME5_.
        H09050A    H09050A_O YNBP_.

        H09051A    H09051A_O TIME7_.
        H09052A    H09052A_O YNDNK.
        H09053A    H09053A_O TIME8_.
        H09054A    H09054A_O TIME9_.
        H09055A    H09055A_O OFTEN7_.
        H09056A    H09056A_O OFTEN7_.
        H09057A    H09057A_O OFTEN7_.

        H09058A    H09058A_O SEX.
        H09059A    H09059A_O TIME11_.
        H09061A    H09061A_O TIME12_.
        H09063A    H09063A_O YNPREG.
        H09064A    H09064A_O PREG1_.
        H09065A    H09065A_O PREG2_.
        H09066A    H09066A_O HEALTH.

        H09068FA H09068FAO
        H09068IA H09068IAO
        H09069A  H09069A_O
          TIME14_.

        SREDAA     SREDAA_O  EDUC.
        H09070A              HISP.
        SRAGEA     SRAGEA_O  AGEGRP.


        MISS_1   MISS_4-MISS_9 MISS_TOT 4.
      ;


  LABEL H09001A_O='Are you the person listed on envelope'
        H09001A  ='Are you the person listed on envelope'
        H09002AAO='Health plan(s) covered: TRICARE Prime'
        H09002AA ='Health plan(s) covered: TRICARE Prime'
        H09002CAO='Health plan(s) covered: TRICARE Ext/Stnd'
        H09002CA ='Health plan(s) covered: TRICARE Ext/Stnd'
        H09002NAO='Health plan(s) covered: TRICARE Plus'
        H09002NA ='Health plan(s) covered: TRICARE Plus'
        H09002OAO='Health plan(s) covered: TRICARE For Life'
        H09002OA ='Health plan(s) covered: TRICARE For Life'
        H09002PAO='Health plan(s) covered: TRICARE Supplmntl Ins'
        H09002PA ='Health plan(s) covered: TRICARE Supplmntl Ins'
        H09002QAO='Health plan(s) covered: TRICARE Reserve Select'
        H09002QA ='Health plan(s) covered: TRICARE Reserve Select'
        H09002FAO='Health plan(s) covered: Medicare'
        H09002FA ='Health plan(s) covered: Medicare'
        H09002GAO='Health plan(s) covered: FEHBP'
        H09002GA ='Health plan(s) covered: FEHBP'
        H09002HAO='Health plan(s) covered: Medicaid'
        H09002HA ='Health plan(s) covered: Medicaid'
        H09002IAO='Health plan(s) covered: Civilian HMO'
        H09002IA ='Health plan(s) covered: Civilian HMO'
        H09002JAO='Health plan(s) covered: Other civilian'
        H09002JA ='Health plan(s) covered: Other civilian'
        H09002KAO='Health plan(s) covered: USFHP'
        H09002KA ='Health plan(s) covered: USFHP'
        H09002MAO='Health plan(s) covered: Veterans'
        H09002MA ='Health plan(s) covered: Veterans'
        H09002RAO='Health plan(s) covered: Gov Hlth ins-other cntry'
        H09002RA ='Health plan(s) covered: Gov Hlth ins-other cntry'
        H09002LAO='Health plan(s) covered: Not sure'
        H09002LA ='Health plan(s) covered: Not sure'
        H09003A  ='Currently Covered Medicare Part A'
        H09003A_O='Currently Covered Medicare Part A'
        H09004A  ='Currently Covered Medicare Part B'
        H09004A_O='Currently Covered Medicare Part B'
        H09005A  ='Currently Covered Medicare Supplemental'
        H09005A_O='Currently Covered Medicare Supplemental'
        H09006A_O='Which health plan did you use most'
        H09006A  ='Which health plan did you use most'
        H09007A_O='Yrs in a row with health plan'
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H09007A  ='Yrs in a row with health plan'
H09008A_O='Have one person think of as personal Dr'
H09008A  ='Have one person think of as personal Dr'
H09009A_O='Rating of your personal Dr or nurs'
H09009A  ='Rating of your personal Dr or nurs'
H09010A_O='Same prs Dr/nurs before joined hlth pln'
H09010A  ='Same prs Dr/nurs before joined hlth pln'
H09011A_O='Health plan: prblm to get Dr happy with'
H09011A  ='Health plan: prblm to get Dr happy with'
H09012A_O='In lst yr:you/Dr think you need spclst'
H09012A  ='In lst yr:you/Dr think you need spclst'
H09013A_O='In lst yr:how much prblm see spclst'
H09013A  ='In lst yr:how much prblm see spclst'
H09014A_O='In lst yr:did you see a specialist'
H09014A  ='In lst yr:did you see a specialist'
H09015A_O='Rating of specialist seen in lst yr'
H09015A  ='Rating of specialist seen in lst yr'
H09016A_O='In lst yr:call Dr for help/advice'
H09016A  ='In lst yr:call Dr for help/advice'
H09017A_O='In lst yr:when call how often get hlp nd'
H09017A  ='In lst yr:when call how often get hlp nd'
H09018A_O='In lst yr:ill/injry/cond care right away'
H09018A  ='In lst yr:ill/injry/cond care right away'
H09019A_O='In lst yr:get urgnt care as soon as wntd'
H09019A  ='In lst yr:get urgnt care as soon as wntd'
H09020A_O='In lst yr:wait btwn try get care,see prv'
H09020A  ='In lst yr:wait btwn try get care,see prv'
H09021A_O='In lst yr:make appts non-urgnt hlth care'
H09021A  ='In lst yr:make appts non-urgnt hlth care'
H09022A_O='In lst yr:non-urg hlth cre appt whn wntd'
H09022A  ='In lst yr:non-urg hlth cre appt whn wntd'
H09023A_O='In lst yr:days btwn appt & see prvder'
H09023A  ='In lst yr:days btwn appt & see prvder'
H09024A_O='In lst yr:goto emrgncy rm for own care'
H09024A  ='In lst yr:goto emrgncy rm for own care'
H09025A_O='In lst yr:goto Dr office/clinic for care'
H09025A  ='In lst yr:goto Dr office/clinic for care'
H09026A_O='In lst yr:think need care/tests/trtmnt'
H09026A  ='In lst yr:think need care/tests/trtmnt'
H09027A_O='In lst yr:prblm to get care thght ncssry'
H09027A  ='In lst yr:prblm to get care thght ncssry'
H09028A_O='In lst yr:need apprvl care/tests/trtmnt'
H09028A  ='In lst yr:need apprvl care/tests/trtmnt'
H09029A_O='In lst yr:prblm w/delays wait for apprv'
H09029A  ='In lst yr:prblm w/delays wait for apprv'
H09030A_O='In lst yr:wait within 15 min appt see Dr'
H09030A  ='In lst yr:wait within 15 min appt see Dr'
H09031A_O='In lst yr:how oftn treat w/crtsy/rspct'
H09031A  ='In lst yr:how oftn treat w/crtsy/rspct'
H09032A_O='In lst yr:how oftn staff helpful'
H09032A  ='In lst yr:how oftn staff helpful'
H09033A_O='In lst yr:how oftn Drs listen to you'
H09033A  ='In lst yr:how oftn Drs listen to you'
H09034A_O='In lst yr:how oftn Drs explain things'
H09034A  ='In lst yr:how oftn Drs explain things'
H09035A_O='In lst yr:how oftn Drs show respect'
H09035A  ='In lst yr:how oftn Drs show respect'
H09036A_O='In lst yr:how oftn Drs spend enough time'
H09036A  ='In lst yr:how oftn Drs spend enough time'
H09037A_O='Rating of all health care in lst yr'
H09037A  ='Rating of all health care in lst yr'
H09038A_O='In lst yr:fclty use most for Health care'
H09038A  ='In lst yr:fclty use most for Health care'
H09039A_O='In lst yr:send in any claims'
H09039A  ='In lst yr:send in any claims'
H09040A_O='In lst yr:hlth pln handle claims in rsnble time'
H09040A  ='In lst yr:hlth pln handle claims in rsnble time'
H09041A_O='In lst yr:how oftn handle claims correctly'
H09041A  ='In lst yr:how oftn handle claims correctly'
H09042A_O='In lst yr:info in written materials'
H09042A  ='In lst yr:info in written materials'
H09043A_O='In lst yr:prblm to find/undrstnd mtrls'
H09043A  ='In lst yr:prblm to find/undrstnd mtrls'
H09044A_O='In lst yr:hlth plan customer srvc help'
```

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H09044A  ='In lst yr:hlth plan customer srvc help'
H09045A_O='In lst yr:prblm get help from cstmr srvc'
H09045A  ='In lst yr:prblm get help from cstmr srvc'
H09046A_O='In lst yr:fill out paperwork'
H09046A  ='In lst yr:fill out paperwork'
H09047A_O='In lst yr:prblms with paperwork'
H09047A  ='In lst yr:prblms with paperwork'
H09048A  ='Rating of all experience with hlth plan'
H09048A_O='Rating of all experience with hlth plan'
H09049A_O='Blood pressure: when lst reading'
H09049A  ='Blood pressure: when lst reading'
H09050A_O='Blood pressure: know if too high or not'
H09050A  ='Blood pressure: know if too high or not'
H09051A_O='When did you lst have a flu shot'
H09051A  ='When did you lst have a flu shot'
H09052A  ='Smoked at least 100 cigarettes in life'
H09052A_O='Smoked at least 100 cigarettes in life'
H09053A  ='Smoke everyday, some days or not at all'
H09053A_O='Smoke everyday, some days or not at all'
H09054A_O='How long since you quit smoking'
H09054A  ='How long since you quit smoking'
H09055A_O='Lst yr: # visits advised to quit smoking'
H09055A  ='Lst yr: # visits advised to quit smoking'
H09056A  ='# visits recom medic assist quit smoking'
H09056A_O='# visits recom medic assist quit smoking'
H09057A  ='# vist discu meth/strag asst quit smokng'
H09057A_O='# vist discu meth/strag asst quit smokng'
H09058A_O='Are you male or female'
H09058A  ='Are you male or female'
H09059A_O='Lst have a Pap smear test'
H09059A  ='Lst have a Pap smear test'
H09060A_O='Are you under age 40'
H09060A  ='Are you under age 40'
H09061A_O='Lst time: breasts checked mammography'
H09061A  ='Lst time: breasts checked mammography'
H09063A_O='Been pregnant in lst yr or pregnant now'
H09063A  ='Been pregnant in lst yr or pregnant now'
H09064A_O='In what trimester is your pregnancy'
H09064A  ='In what trimester is your pregnancy'
H09065A_O='Trimester first received prenatal care'
H09065A  ='Trimester first received prenatal care'
H09066A_O='In gnrl, how would you rate ovrall hlth'
H09066A  ='In gnrl, how would you rate ovrall hlth'
H09067A_O='Impairment/Hlth prblm limit activities'
H09067A  ='Impairment/Hlth prblm limit activities'

H09068FAO='Height without shoes (feet)'
H09068FA ='Height without shoes (feet)'
H09068IAO='Height without shoes (inches)'
H09068IA ='Height without shoes (inches)'
H09069A_O='Weight without shoes'
H09069A  ='Weight without shoes'

SREDAA_O ='Highest grade completed'
SREDAA   ='Highest grade completed'
H09070A  ='Are you Spanish/Hispanic/Latino'
H09070AAO='Not Spanish/Hispanic/Latino'
H09070AA ='Not Spanish/Hispanic/Latino'
H09070BAO='Mexican, Mexican American, Chicano'
H09070BA ='Mexican, Mexican American, Chicano'
H09070CAO='Puerto Rican'
H09070CA ='Puerto Rican'
H09070DAO='Cuban'
H09070DA ='Cuban'
H09070EAO='Other Spanish, Hispanic, or Latino'
H09070EA ='Other Spanish, Hispanic, or Latino'
SRRACEAAO='Race: White'
SRRACEAA ='Race: White'
SRRACEBAO='Race: Black or African American'
SRRACEBA ='Race: Black or African American'
SRRACECAO='Race: American Indian or Alaska Native'
SRRACECA ='Race: American Indian or Alaska Native'
SRRACEDAO='Race: Asian'
SRRACEDA ='Race: Asian'
```

```
SRRACEEAO='Race: Native Hawaiian/other Pacific Isl.'
SRRACEEA ='Race: Native Hawaiian/other Pacific Isl.'
SRAGEA_O ='What is your age now'
SRAGEA   ='What is your age now'


S09B01A_O='Self rate of overall mental/emotional health'
S09B01A  ='Self rate of overall mental/emotional health'
S09B02A_O='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B02A  ='Lst yr: Needed treatmnt/cnslng-prsnl prob'
S09B03A_O='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B03A  ='Lst yr: Prblm gttng needed treatmnt/cnslng'
S09B04A_O='Lst yr: Rate of treatmnt/cnslng received'
S09B04A  ='Lst yr: Rate of treatmnt/cnslng received'

S09Q01A  ='Had blood stool test with home kit'
S09Q01A_O='Had blood stool test with home kit'
S09Q02A  ='Time since last bld stl tst /w home kit'
S09Q02A_O='Time since last bld stl tst /w home kit'
S09Q03A  ='Had sigmoidoscopy or colonoscopy exam'
S09Q03A_O='Had sigmoidoscopy or colonoscopy exam'
S09Q04A  ='Time since last sigmoidoscopy'
S09Q04A_O='Time since last sigmoidoscopy'
S09Q05A  ='Time since last colonoscopy'
S09Q05A_O='Time since last colonoscopy'

S09D01A_O='Have you used/tried smokeless tobacco products'
S09D01A  ='Have you used/tried smokeless tobacco products'
S09D02A_O='How often currently use smokeless tobacco products'
S09D02A  ='How often currently use smokeless tobacco products'
S09D03A_O='Do you use tobacco products other than cigarettes'
S09D03A  ='Do you use tobacco products other than cigarettes'
S09D04A_O='Lst yr: How often advised by doctor to stop'
S09D04A  ='Lst yr: How often advised by doctor to stop'
S09D05A_O='In a week: How much dip/chewing tobacco/snuff/snus'
S09D05A  ='In a week: How much dip/chewing tobacco/snuff/snus'

S09N11A_O='Prefer civilian or military facilities for hlth care'
S09N11A ='Prefer civilian or military facilities for hlth care'


N1 = "Coding Scheme Note 1"
N2 = "Coding Scheme Note 2"
N3 = "Coding Scheme Note 3"
N4 = "Coding Scheme Note 4"
N5 = "Coding Scheme Note 5"
N6 = "Coding Scheme Note 6"
N7 = "Coding Scheme Note 7"
N8 = "Coding Scheme Note 8"
N9 = "Coding Scheme Note 9"
N10= "Coding Scheme Note 10"
N10A1= "Coding Scheme Note 10A1"
N11= "Coding Scheme Note 11"
N12= "Coding Scheme Note 12"
N13 = "Coding Scheme Note 13"
N14 = "Coding Scheme Note 14"
N14A1 = "Coding Scheme Note 14A1"
N14A2 = "Coding Scheme Note 14A2"
N15 = "Coding Scheme Note 15"
N16 = "Coding Scheme Note 16"
N16A1= "Coding Scheme Note 16A1"
N17A= "Coding Scheme Note 17A"
N17B= "Coding Scheme Note 17B"
N18 = "Coding Scheme Note 18"
N19 = "Coding Scheme Note 19"
N20 = "Coding Scheme Note 20"



MISS_1 = "Count of: Violates Skip Pattern"
MISS_4 = "Count of: Incomplete grid error"
MISS_5 = "Count of: Scalable reponse of Don't know"
MISS_6 = "Count of: Not applicable - valid skip"
MISS_7 = "Count of: Out-of-range error"
```

```
    MISS_8 = "Count of: Multiple response error"
    MISS_9 = "Count of: No response - invalid skip"
    MISS_TOT = "Total number of missing responses"
    XSEXA = "Male or Female  - R"
;
```

F.3   Q4FY2009\PROGRAMS\WEIGHTING\SELECTQ.SAS - CREATE RECORD SELECTION FLAG FOR RECORD SELECTION.

```
*******************************************************************************
*
* PROGRAM:  SELECTQ.SAS
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-300)
* PURPOSE:  ASSIGN FINAL STATUS FOR RECORD SELECTION PURPOSES.
* WRITTEN:  12/14/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 03/21/2002 BY KEITH RATHBUN, Updated for the 2002 survey.
*              Added FLAG_FIN = 23,24 for FNSTATUS = 20.
*           2) 03/22/2004 BY KEITH RATHBUN, Updated for the 2004 survey.
*           3) 09/23/2004 BY KEITH RATHBUN, Added code to assign flag_fin
*              for ineligibles (determined by STI) at time of address update
*              prior to fielding using the adult_deceased.sd2 file.
*           4) 04/15/2005 BY JACQUELINE AGUFA, Updated for the 2005 survey.
*           5) 03/16/2006 BY JACQUELINE AGUFA, Updated for the 2006 survey.
*           6) 12/15/2006 BY JACQUELINE AGUFA, Updated for the 2007 survey.
*           7) 01/10/2008 BY JACQUELINE AGUFA, Updated for the 2008 survey.
*           8) 12/17/2008 BY JACQUELINE AGUFA, Updated for the 2009 survey.
*
* INPUTS:   1) CSCHM09Q.sas7bdat - 2009 Quarterly DOD Health Survey Data
*
* OUTPUTS:  1) SELECTQ.sas7bdat - 2009 Quarterly DOD Health Survey Data w/FNSTATUS
*
*******************************************************************************
*;
LIBNAME IN        V9 "..\..\DATA\AFINAL";
LIBNAME OUT       V9 "..\..\DATA\AFINAL";
LIBNAME LIBRARY      "..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

PROC SORT DATA=IN.CSCHM09Q OUT=TEMPA1; BY MPRID; RUN;

DATA TEMPA2 OUT.DUPSA;
   SET TEMPA1;
   BY MPRID;
   /***************************************************************************/
   /** KEY VARIABLES (Total=20)                                             **/
   /***************************************************************************/
   ARRAY KEYVAR H09003 H09005 H09006 H09009 H09013 H09018 H09019 H09027
                H09028 H09031 H09033 H09039 H09042 H09047 H09050 H09051
                H09063 H09071 SREDA
                  ;

   ARRAY RACE(5) SRRACEA SRRACEB SRRACEC SRRACED SRRACEE;

   FLAGRACE = 0; DROP FLAGRACE;
   DO I = 1 TO DIM(RACE);
      IF RACE(I) IN (1) THEN FLAGRACE = 1;
   END;

   KEYCOUNT = 0;
   DO I = 1 TO DIM(KEYVAR); DROP I;
      IF KEYVAR(I) NOT IN (.,.A,.O,.I,.B) THEN KEYCOUNT = KEYCOUNT + 1;
   END;
   KEYCOUNT = KEYCOUNT + FLAGRACE;

   /***************************************************************************/
   /** SET FLAG FOR DUPLICATES                                              **/
   /***************************************************************************/
   LENGTH DUPFLAG $3;
   DUPFLAG = 'NO';
   IF NOT (FIRST.MPRID AND LAST.MPRID) THEN DUPFLAG = 'YES';

   /***************************************************************************/
   /** DETERMINE FNSTATUS                                                   **/
   /***************************************************************************/
   FNSTATUS = 0;
   IF FLAG_FIN = 1 THEN DO;
      ***********************************************************
```

```
      **** APPLY THE COMPLETE QUESTIONNAIRE RULE (50% OF KEY   ****
      **** VARIABLES).                                         ****
      **************************************************************;
      IF KEYCOUNT GT 9 THEN FNSTATUS = 11;
      ELSE FNSTATUS = 12;
   END;
   ELSE IF FLAG_FIN IN(3,6,8,10,11,14,16,21,23,24) THEN DO;
      FNSTATUS = 20;
   END;
   ELSE IF FLAG_FIN IN(2,4,5,7,12,13,15) THEN DO;
      FNSTATUS = 31;
   END;
   ELSE IF FLAG_FIN IN (25,26) THEN DO;
      FNSTATUS = 32;
   END;
   ELSE IF FLAG_FIN IN(9,17,18,19,20,22) THEN DO;
      IF FLAG_FIN IN (18,19,20) THEN DO;
         FNSTATUS = 42;
      END;
      ELSE DO;
         FNSTATUS = 41;
      END;
   END;

   IF DUPFLAG = 'YES' THEN OUTPUT OUT.DUPSA ;
   ELSE OUTPUT TEMPA2;

RUN;


***************************************************************************
* Select the "most complete" questionaire from duplicates and
* SET it back into the non-duplicates file. For now assume the lowest
* FNSTATUS Value is the "most complete".
***************************************************************************
;
PROC SORT DATA=OUT.DUPSA ;
BY MPRID FNSTATUS;
RUN;

DATA DEDUPED;
   SET OUT.DUPSA ;
   BY MPRID FNSTATUS;
   IF FIRST.MPRID; *KEEP only the first - most complete questionaire;
RUN;

DATA OUT.SELECTQ ;
   SET TEMPA2 DEDUPED;
   LABEL FNSTATUS = "Final Status"
         DUPFLAG  = "Multiple Response Indicator"
         STRATUM  = "Sampling STRATUM"
         KEYCOUNT = "# Key Questions Answered"
        ;
RUN;

TITLE1 "Quarterly DOD Health Survey FNSTATUS assignment (6244-300)";
TITLE2 "Program Name: SELECTQ.SAS By Keith Rathbun";
TITLE3 "Program Output: SELECTQ.sas7bdat";

PROC CONTENTS DATA=OUT.SELECTQ ; RUN;

PROC FREQ DATA=OUT.SELECTQ ;
TABLES FNSTATUS KEYCOUNT FLAG_FIN
       FNSTATUS*KEYCOUNT*FLAG_FIN
   /MISSING LIST;
RUN;
```

F.4.A   Q4FY2009\PROGRAMS\CONSTRUCT\CONVARQ.SAS - CONSTRUCT VARIABLES FOR ANALYSIS.

```
****************************************************************************
* PROGRAM:   CONVARQ.SAS
* WRITTEN:   2/3/99 BY KELLY WHITE
* UPDATED:   2/29/2000 BY NATALIE JUSTH
* UPDATED:   11/16/2000 BY JOAN JAMES
* UPDATED FOR QUARTERLY 2001:  1/22/2001 BY NATALIE JUSTH
* UPDATED FOR QUARTER 2 2001:  6/5/2001 BY NATALIE JUSTH
*                             UPDATES NOTED WITH NJ_Q2
* UPDATED FOR QUARTER 3 2001:  8/20/2001 BY NATALIE JUSTH
* UPDATED FOR QUARTER 4 2001: 12/11/2001 BY NATALIE JUSTH, REMOVED KENRINTN
*          AND CHANGE DAGEQY TO FIELDAGE.
* UPDATED FOR QUARTER 1 2002:  4/01/2002 BY JACLYN WONG, REMOVED KMEDIGAP, KCOST_2
* UPDATED FOR QUARTER 2 2002:  6/19/2002 BY JACLYN WONG, REMOVED KPRSCPTN
* UPDATED FOR QUARTER 3 2002:  9/25/2002 BY JACLYN WONG
* UPDATED FOR QUARTER 1 2003:  BEGUN 3/13/2003 BY NATALIE JUSTH
* UPDATED FOR QUARTER 3 2003:  BEGUN 8/29/2003 BY NATALIE JUSTH
* UPDATED FOR QUARTER 4 2003:  12/18/2003 BY NATALIE JUSTH
* UPDATED FOR QUARTER 1 2004:  1/29/2004 BY LUCY LU
* UPDATED FOR QUARTER 2 2004:  6/10/2004 BY LUCY LU
* UPDATED FOR QUARTER 3 2004:  9/13/2004 BY LUCY LU
* Added Code to include Consvar0.sas: 9/28/2004 BY JACQUELINE AGUFA
* Added Code to calculate XBMI: 10/18/2004 BY JACQUELINE AGUFA
* UPDATED FOR QUARTER 4 2004:  2/1/2005 BY LUCY LU
* ADDED code to get updated CACSMPL from REPWT.sd2: 2/17/2005 BY JACQUELINE AGUFA
* UPDATED FOR QUATER 1 2005:   5/6/2005 BY LUCY LU. ADD VARIABLE HP_NORM
* UPDATED FOR QUATER 3 2005:   11/3/2005 BY JACQUELINE AGUFA. ADD VARIABLE HP_OBESE
* UPDATED FOR QUARTER 2 FY 2006:  3/29/2006 BY LUCY LU
* UPDATED FOR QUARTER 3 FY 2006:  7/7/2006 BY LUCY LU. ADD XOCONUS VARIABLE
* UPDATED FOR QUARTER 1 FY 2007:  1/12/2007 BY J AGUFA.
* UPDATED FOR QUARTER 2 FY 2007:  3/26/2007 BY J AGUFA. Modified XENRLLMT, XENR_PCM, XENR_RSV, &
XBNFGRP
*                             with TRICARE Reserve Select(Enbgsmpl=11)
* UPDATED FOR QUARTER 1 FY 2008: 1/22/2008 BY J AGUFA. Deleted code that was recoding LEGDDSCD
* UPDATED FOR QUARTER 2 FY 2009:  4/13/2009 BY M RUDACILLE. Changed lower age limit from 17 to
18
*                             for constructed variable checks
*
* PURPOSE:   TO CREATE INDEPENDENT VARIABLES: XENRLLMT, XENR_PCM, XINS_COV,
*            XBNFGRP, XBENCAT, XINS_RSV, XENR_RSV
*            TO CREATE DEPENDENT VARIABLES: KDISENRL, KBGPRB1,
*            KBGPRB2, KMILOFFC, KCIVOFFC, KMILOPQY, KCIVOPQY, HP_PRNTL, HP_MAMOG,
*            HP_MAM50, HP_PAP, HP_BP, HP_FLU, HP_PROS, KCIVINS, KPRSCPTN, HP_GP,
*            HP_CHOL, HP_BRST, HP_SMOKE, HP_SMOKH, HP_CESS, HP_OBESE,
*
*            TO CREATE OUTCATCH
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.sas7bdat
* OUTPUT:    ..\..\DATA\AFINAL\CONVARQ.sas7bdat
*
* INCLUDES: 1) CONSVAR0.SAS - Construct XREGION, XTNEXREG and USA based on CACSMPL.
*           2) Construct_cacsmpl.SAS
****************************************************************************;

LIBNAME IN   V9 '..\..\DATA\AFINAL';
LIBNAME LIBRARY    '..\..\DATA\AFINAL\FMTLIB';


OPTIONS PS=78 LS=256 ERRORS=2 NOCENTER ;

***Create cacsmpl;

TITLE1 'FY 2009 Quarter 4 Health Care Survey of DoD Beneficiaries Study - Adult Form A';
TITLE2 'CREATE CONSTRUCTED & OUTCOME MEASURE VARIABLES';

PROC SORT DATA=IN.SELECTQ OUT=SELECTQ; BY MPRID; RUN;
%INCLUDE "Construct_cacsmpl.SAS"/SOURCE2; /* Move construct_cacsmpl here to use selectq sort */
PROC SORT DATA=IN.CONSTRUCT_CACSMPL OUT=CACSMPL; BY MPRID; RUN;

DATA IN.CONVARQ(KEEP=XENRLLMT XENR_PCM XINS_COV
                     XREGION XTNEXREG USA
                     ENBGSMPL XBNFGRP XOCONUS SERVAREA
                     /*KMILOFFC KCIVOFFC KBGPRB1 KBGPRB2 */
```

```
                          KMILOPQY KCIVOPQY HP_PRNTL HP_MAMOG HP_MAM50 HP_PAP HP_BP HP_FLU
                          MPRID KCIVINS HP_SMOKE
                          OUTCATCH HP_SMKH2 HP_CESH2 HP_OBESE
                          XBMI XBMICAT CACSMPL XBENCAT XENR_RSV XINS_RSV)
          CONVARQ;
    MERGE SELECTQ(IN=in1)
          CACSMPL(IN=in2 RENAME=(CACSMPL=XCACSMPL));        *JMA 1/4/07;

    BY MPRID;

    IF IN1;


    **************************************************************************
    * Construct XREGION, XTNEXREG and USA.
    **************************************************************************;

/*CHANGE CACSMPL TO BE NUMERIC*/
    CACSMPL = INPUT(XCACSMPL,8.);              *LLU 2/9/05;
    DROP XCACSMPL;

    %INCLUDE "CONSVAR0.SAS"/SOURCE2;          *LLU 2/9/05;

    LENGTH XREGION  3.
           XTNEXREG 3.
           USA      3.
           XBMI     8.
           XBMICAT  3.
           XOCONUS  3.
           XBENCAT  3.
           XINS_RSV 3.
           XENR_RSV 3.;


LABEL
    XENRLLMT    =  "Enrollment in TRICARE Prime"
    XENR_PCM    =  "Enrollment by PCM type"
    XINS_COV    =  "Insurance Coverage"
    XBNFGRP     =  "Constructed Beneficiary Group"
  /*KMILOFFC    =  "Office wait of more than 15 min-Mil" */
  /*KCIVOFFC    =  "Office wait of more than 15 min-Civ" */
  /* KBGPRB1    =  "Big problem getting referrals to spclst" */
  /* KBGPRB2    =  "Big problem getting necessary care"  */
    KMILOPQY    =  "Outpat. visits-use Military fclty most"
    KCIVOPQY    =  "Outpat. visits-use Civilian fclty most"
    HP_PRNTL    =  "Prgnt in lst yr, receivd cre 1st trimstr"
    HP_MAMOG    =  "Women 40>=, mammography in pst 2 yrs"
    HP_MAM50    =  "Women 50>=, mammography in pst 2 yrs"
    HP_PAP      =  "All women, Pap smear in last 3 yrs"
    HP_BP       =  "Bld prsre chck in last 2 yrs,know rslts"
    HP_FLU      =  "65 and older, flu shot in last 12 mnths"
    HP_SMOKE    =  "Advised to quit smoking in last 12 mnths"
    KCIVINS     =  "Beneficiary coverd by civilian insurance"
    OUTCATCH    =  "Out of catchment area indicator"
    HP_SMKH2    =  "Smoker under HEDIS definition (modified)"
    HP_CESH2     = "Had smoking cessation counseling - HEDIS (modified)"
    XREGION     = "XREGION - Region"
    XTNEXREG    = "TNEX Region"
    USA         = "USA - USA/OCONUS Indicator"
    XBMI        = "Body Mass Index"
    XBMICAT     = "Body Mass Index Category"
    HP_OBESE    = "Obese/Morbidly obese"
    XOCONUS     = "Overseas Europe/Pacific/Latin Indicator"
    XBENCAT     = "Beneficiary Category"
    XINS_RSV    = "Insurance Coverage - Reservist"
    XENR_RSV    = "Enrollment by PCM type - Reservist"
    ;


FORMAT
    XENRLLMT        ENROLL.
    XENR_PCM        PCM.
```

```
   XINS_COV        INSURE.
   XBNFGRP         XBGC_S.
   /*KMILOFFC      HAYNN.*/
   /*KCIVOFFC      HAYNN.*/
   /*KBGPRB1       HAYNN.*/
   /*KBGPRB2       HAYNN.*/
   KMILOPQY        HAGRID.
   KCIVOPQY        HAGRID.
   HP_PRNTL        PRNTL.
   HP_MAMOG        HAYNN.
   HP_MAM50        HAYNN.
   HP_OBESE        HAYNN.
   HP_PAP          HAYNN.
   HP_BP           HAYNN2_.
   HP_FLU          HAYNN.
   HP_SMOKE        HAYNN.
   KCIVINS         HAYNN2_.
   OUTCATCH        OCATCH.
   HP_SMKH2        SMOKE.
   HP_CESH2        SMOKE.
   ENBGSMPL        $ENBGS.
   XREGION         CREG.
   XTNEXREG        TNEX.
   USA             USAMHS.
   XBMICAT         XBMICAT.
   XOCONUS         XOCONUS.
   XBENCAT         XBENCAT.
   XINS_RSV        XINSRSV.
   XENR_RSV        XENRRSV.
   ;


/* CREATE INDEPENDENT VARIABLES */

/* XENRLLMT--ENROLLMENT STATUS */
IF ENBGSMPL ^= "b" THEN DO;
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 1 THEN XENRLLMT = 1;                    /*   Active duty (<65) */
    ELSE IF INPUT(ENBGSMPL,8.) IN (2, 3, 5, 6) THEN XENRLLMT = 2;   /*   Non-active duty enrolled
(<65)*/
    ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENRLLMT = 3;      /*   Not Enrolled (<65)*/
END;
ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 10 THEN XENRLLMT = 4;                  /*   Not Enrolled (65+)*/
    ELSE IF INPUT(ENBGSMPL,8.) IN (8,9) THEN XENRLLMT = 5;         /*   Enrolled (65+)    */
END;


/* XENR_PCM--ENROLLMENT BY PCM TYPE */
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 1 THEN XENR_PCM = 1;                   /*   Active duty (<65)       */
    ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_PCM = 2;        /*   Enrolled (<65) - mil PCM */
    ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_PCM = 3;        /*   Enrolled (<65) - civ PCM */
    ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_PCM = 4;     /*   Not Enrolled (<65)       */
END;
 ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
     IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_PCM = 5;                 /*  Not Enrolled (65+)       */
     IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_PCM = 6;                  /*  Enrolled (65+)-mil PCM   */
     IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_PCM = 7;                  /*  Enrolled (65+)-civ PCM   */
/*NJ_Q2*/
 END;
END;


/* XINS_COV--INSURANCE COVERAGE */
IF XENRLLMT = 1 THEN XINS_COV =1;                                  /* Prime <65-Active Duty */
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H09003 IN (1) THEN XINS_COV = 2; /* Prime <65-Non-
active Duty */
  ELSE IF H09003 = 3 THEN XINS_COV = 3;                           /* Standard/Extra */
  ELSE IF H09003 = 11 THEN XINS_COV = 7;                          /* Plus and Medicare */
  ELSE IF H09003 = 4 THEN XINS_COV = 4;                           /* Medicare*/
  ELSE IF H09003 IN (5,6, 7, 8, 9, 13) THEN XINS_COV = 5;         /* Other civilian health
insurance*/
  ELSE IF H09003 = 10 THEN XINS_COV = 8;                          /* Veterans Administration
(VA) */
```

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```
  ELSE IF H09003 = 12 THEN XINS_COV = 9;                                    /* TRICARE Reserve Select
*/
  ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H09003 = 1) THEN XINS_COV = 6;    /*
Prime, >= 65 */
  ELSE IF H09072=1 AND H09073=1 AND H09003 NE .N THEN XINS_COV = 4;           /* NEW Q2
Medicare/Medicaid */


/* XBNFGRP-Beneficiary Group that excludes those 65 and over-Active Duty
          and Family Members of Active Duty */
IF ENBGSMPL ^="b" THEN DO;
IF INPUT(FIELDAGE,8.)  >= 65 AND INPUT(ENBGSMPL,8.) IN (1, 2, 3, 4) THEN XBNFGRP = .;
  ELSE IF INPUT(ENBGSMPL,8.) = 1 THEN XBNFGRP = 1;                          /* Active
Duty <65 */
  ELSE IF INPUT(ENBGSMPL,8.) IN (2, 3, 4) THEN XBNFGRP = 2;                 /* Family
of Active <65 */
  ELSE IF  INPUT(ENBGSMPL,8.) IN (5, 6, 7) THEN XBNFGRP = 3;                   /*
Ret/Surv/Fam <65 */
  ELSE IF  INPUT(ENBGSMPL,8.) IN (8, 9, 10) THEN XBNFGRP = 4;                  /*
Ret/Surv/Fam 65+ */
  ELSE IF INPUT(ENBGSMPL,8.) IN (11)      THEN XBNFGRP = .;
END;


/* CREATE DEPENDENT VARIABLES */

/* KMILOFFC--OFFICE WAIT OF MORE THAN 15 MINUTES AT MILITARY FACILITES
   KCIVOFFC--OFFICE WAIT OF MORE THAN 15 MINUTES AT CIVILIAN FACILITES
   ***jma Do we have a replacement for H08030

IF H09005  = 1 THEN DO;                                  ***Military ;
  IF H08030  IN (1,2) THEN KMILOFFC = 1;                 ***Yes ;
  ELSE IF H08030  IN (3,4) THEN KMILOFFC = 2;            ***No;
END;
  ELSE IF H09005 IN (2, 3, 4) THEN DO;                   ***Civilian;
    IF H08030 IN (1,2) THEN KCIVOFFC = 1;                ***Yes;
    ELSE IF H08030  IN (3,4) THEN KCIVOFFC = 2;          ***No;
  END;
*/

/* KBGPRB1--BIG PROBLEM GETTING REFERRALS TO SPECIALISTS
   ***jma Do we have a replacement
IF H08013 = 1 THEN KBGPRB1 = 1;                          *** YES ;
  ELSE IF H08013 IN (2,3) THEN KBGPRB1 = 2;              *** NO  ;
 */

/* KBGPRB2--BIG PROBLEM GETTING NECESSARY CARE
   ***jma Do we have a replacement
IF H08027 = 1 THEN KBGPRB2 = 1;                          *** YES ;
   ELSE IF H08027 IN (2,3) THEN KBGPRB2 = 2;             *** NO  ;
 */

/* KMILOPQY--OUTPATIENT VISITS TO MILITARY FACILITY
   KCIVOPQY--OUTPATIENT VISITS TO CIVILIAN FACILITY */
IF H09005 = 1 THEN DO;
  KMILOPQY=H09013;
  KCIVOPQY=1;
END;
ELSE IF H09005 IN  (2, 3, 4) THEN DO;
  KCIVOPQY=H09013;
  KMILOPQY=1;
END;
ELSE IF H09005 = 5 THEN DO;
  KMILOPQY=1;
  KCIVOPQY=1;
END;

/* HP_PRNTL--IF PREGNANT LAST YEAR, RECEIVED PRENATAL CARE IN 1ST TRIMESTER */
IF H09060 IN (1,2) THEN DO;                                      /*   Pregnant in last 12
months   */
  IF H09062 = 4 THEN HP_PRNTL = 1;                               /*   Yes   */
    ELSE IF (H09061 = 1 AND H09062 = 1) THEN HP_PRNTL = .;    /* <3 months pregnant now */
    ELSE IF H09062 IN (1,2,3) THEN HP_PRNTL = 2;             /*   No */
END;
```

```
/* HP_MAMOG--FOR WOMEN AGE 40 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
IF XSEXA = 2 AND INPUT(FIELDAGE,8.)  >= 40 THEN DO;
   IF H09059 IN (5, 4) THEN HP_MAMOG = 1;           /* Yes */
   ELSE IF H09059 IN (1, 2, 3) THEN HP_MAMOG = 2;   /* No */
END;

/* HP_MAM50--FOR WOMEN AGE 50 AND OVER, HAD MAMMOGRAM W/IN PAST 2 YEARS */
IF XSEXA = 2 AND INPUT(FIELDAGE,8.)  >= 50 THEN DO;
   IF H09059 IN (5, 4) THEN HP_MAM50 = 1;           /* Yes */
   ELSE IF H09059 IN (1, 2, 3) THEN HP_MAM50 = 2;   /* No */
END;

/* HP_PAP--FOR ALL WOMEN, HAD PAP SMEAR IN LAST 3 YEARS */
IF XSEXA = 2 THEN DO;
   IF H09057 IN (4, 5) THEN HP_PAP = 1;             /* Yes */
   ELSE IF H09057 IN (1, 2, 3) THEN HP_PAP = 2;     /* No  */
END;

/* HP_BP--HAD BLOOD PRESSURE SCREENING IN LAST 2 YEARS AND KNOW RESULT */
IF H09048 IN (2,3) AND H09049 IN (1,2) THEN HP_BP = 1;   /* Yes     */
   ELSE IF H09048 = 1 THEN HP_BP = 2;                    /* No      */
   ELSE IF H09048 < 0 OR H09049 < 0 THEN HP_BP = .;      /* Unknown */
   ELSE HP_BP = 2;                                       /* No      */

/* HP_FLU--FOR PERSON AGE 65 OR OVER, HAD FLU SHOT IN LAST 12 MONTHS */
IF INPUT(FIELDAGE,8.) >= 65 THEN DO;
   IF H09050 = 4 THEN HP_FLU = 1;                   /*  Yes */
   ELSE IF H09050 IN (1, 2, 3) THEN HP_FLU = 2;     /*  No  */
END;

/* HP_SMOKE--ADVISED TO QUIT SMOKING IN PAST 12 MONTHS */
IF H09053 IN (2, 3, 4, 5) THEN HP_SMOKE = 1;        /*  Yes  */
   ELSE IF H09053 = 1 THEN HP_SMOKE = 2;            /*  No   */

/* KCIVINS--IS BENEFICIARY COVERED BY PRIVATE CIVILIAN INSURANCE */
IF H09002G=1 OR H09002I=1 OR H09002J=1 THEN KCIVINS=1;        /* YES  */  /*NJ_Q2*/
   ELSE KCIVINS=2;                                           /* NO   */

/* Add code for smoking and smoking cessation counseling according to the HEDIS */
/* definition.  Smoking variable is HP_SMOKH and smoking cessation counseling   */
/* is HP_CESS.                                                                   */
/* 1/16/09 Changed HP_SMOKH to HP_SMKH2 and HP_CESH to HP_CESH2 to account for   */
/* HYY054 variable not appearing in V4 questionnaire.                            */
IF H09051 IN (1,2) THEN DO;
   IF H09051=1 AND (H09052=3 OR H09052=4 /*OR (H09052=2 AND H08054=3)*/) THEN HP_SMKH2=1;
/* Yes */
   ELSE IF H09051=2 OR H09052 > 0 THEN HP_SMKH2=2;                            /*
No */
END;

if hp_smkh2=1 & H09053>0 then do;
   if H09053>1 then hp_cesh2=1;  /* Yes */
   else hp_cesh2=2;             /* No */
end;

/* OUTCATCH -- OUT OF CATCHMENT AREA */
IF 9900 < CACSMPL < 9999 THEN OUTCATCH=1;     /* Out of catchment area */
   ELSE IF CACSMPL = 9999 THEN OUTCATCH=.;
   ELSE OUTCATCH=0;                           /* Catchment area        */

***************************************************************************************
* Calculate XBMI- Body Mass Index and XBMICAT- Body Mass Index Category
* BMI=Weight(in pounds)*703 divide by Height(in inch)*Height(in inch)
***************************************************************************************;


 IF H09069F IN (.A,.O,.I,.B) THEN TSRHGTF=.; ELSE TSRHGTF=H09069F;
 IF H09069I IN (.A,.O,.I,.B) THEN TSRHGTI=.; ELSE TSRHGTI=H09069I;
 IF H09070  IN (.A,.O,.I,.B) THEN TSRWGT =.; ELSE TSRWGT =H09070;

 IF TSRHGTF IN (.) OR
    TSRWGT  IN (.) THEN XBMI=.;
 ELSE DO;
    XBMI = ROUND((TSRWGT*703)/
```

```
                    (SUM(TSRHGTF*12,TSRHGTI)*SUM(TSRHGTF*12,TSRHGTI)), .1);
 END;


IF XBMI >= 100 THEN XBMI=.;


* FORMAT XBMI 5.1;

 DROP TSRHGTF TSRHGTI TSRWGT;

/* JMA Dec 28 2006 changed to have same category as Healthy People 2010 where
   there is no sex distinction */
    IF XBMI = .        THEN XBMICAT=.;
    ELSE IF XBMI < 18.5 THEN XBMICAT=1;  *Underweight;
    ELSE IF XBMI < 25   THEN XBMICAT=2;  *Normal Weight;
    ELSE IF XBMI < 30   THEN XBMICAT=3;  *Overweight;
    ELSE IF XBMI < 40   THEN XBMICAT=4;  *Obese;
    ELSE                     XBMICAT=5;  *Morbidly Obese;

/*ADD HP_OBESE VARIABLE. JMA 11/3/2005*/

IF XBMICAT=. THEN HP_OBESE=.;
ELSE IF XBMICAT IN (4,5) THEN HP_OBESE=1;    *OBESE ;
ELSE HP_OBESE=2;                             *NOT OBESE;




/*ADD XBENCAT JMA 1/22/2007 */
/*
Tricare Reserve Select and the increasing presence of inactive reservists and their dependents
in our data.
In order to accomodate them, we will need to create additional variables.
*/

IF DBENCAT='ACT' THEN XBENCAT=1;       *Active duty;
ELSE IF DBENCAT='DA'  THEN XBENCAT=2; *Active Duty family member;
ELSE IF DBENCAT='GRD' THEN XBENCAT=3; *Active reservist;
ELSE IF DBENCAT='DGR' THEN XBENCAT=4; *Dependent of Reservist;
ELSE IF DBENCAT='IGR' THEN XBENCAT=5; *Inactive Reservist";
ELSE IF DBENCAT='IDG' THEN XBENCAT=6; *Dependent of Inactive Guard";
ELSE IF DBENCAT IN ('RET','DR','DS') THEN DO;
     IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN XBENCAT=7;   *Retired or Dependent of Retiree <65;
     ELSE IF INPUT(FIELDAGE,8.)  > = 65 THEN XBENCAT=8; *Retired or Dependent of Retiree >=65;
END;

/*ADD XINS_RSV, XENR_RSV. JMA 1/22/2007 */
/*

We also need to redefine xins_cov, call it xins_rsv,
which is the same as xins_cov but where
reservists are separated from other active duty - xins_cov will =1 if active duty,
but not active reservist or inactive reservist.

Similarly we need xenr_rsv which is xenr_pcm but reservists will not be treated as active duty
ie xenr_pcm=1 if active duty but not reservist.  We also need to define another category
for xins_rsv, xins_rsv=9 for tricare reserve select -we also need to account for the value
covered by insurance of another country - that should be classified as civilian insurance.
Use H09003 for this.

These new variables will be used in the beneficiary reports -
we will not start reporting on tricare reserve select separately until later in the year -
for now we will include it in std/extra
*/

/* XINS_RSV--INSURANCE COVERAGE DISTINGUISHING RESERVISTS FROM ACTIVE DUTY*/
  IF XENRLLMT = 1 THEN DO;
     IF XBENCAT IN (1) THEN XINS_RSV =1;                          /* Prime <65-Active Duty
(Non reservists) */
     ELSE IF XBENCAT IN (3,5) THEN XINS_RSV=10;                   /* Prime <65-Active Duty
(Reservists) */
  END;
  ELSE IF 17 <= INPUT(FIELDAGE,8.)  < 65 AND H09003 IN (1) THEN XINS_RSV = 2; /* Prime <65-Non-
active Duty */
  ELSE IF H09003 =3 THEN XINS_RSV = 3;                            /* Standard/Extra */
```

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```
   ELSE IF H09003 = 11 THEN XINS_RSV = 7;                                /* Plus and Medicare */
   ELSE IF H09003 = 4 THEN XINS_RSV = 4;                                 /* Medicare*/
   ELSE IF H09003 IN (5,6, 7, 8, 9, 13) THEN XINS_RSV = 5;              /* Other civilian health
insurance*/
   ELSE IF H09003 = 10 THEN XINS_RSV = 8;                               /* Veterans Administration
(VA) */
   ELSE IF H09003 = 12 THEN XINS_RSV = 9;                               /* TRICARE Reserve Select */
   ELSE IF (INPUT(FIELDAGE,8.)>= 65 AND XENRLLMT = 5 and H09003 = 1) THEN XINS_RSV = 6;    /*
Prime, >= 65 */
   ELSE IF H09072=1 AND H09073=1 AND H09003 NE .N THEN XINS_RSV = 4;                       /*
Medicare/Medicaid */

/* XENR_RSV--ENROLLMENT DISTINGUISHING RESERVISTS FROM ACTIVE DUTY */
IF 17 <= INPUT(FIELDAGE,8.) < 65 THEN DO;
   IF INPUT(ENBGSMPL,8.) = 1 THEN DO;
      IF XBENCAT IN (1) THEN XENR_RSV = 1;                       /*   Active duty (<65) Non
reservists */
      ELSE IF XBENCAT IN (3,5) THEN XENR_RSV = 8;                /*    Active duty (<65)
Reservists */
   END;
   ELSE IF INPUT(ENBGSMPL,8.) IN (3, 6) THEN XENR_RSV = 2;       /*   Enrolled (<65) - mil PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (2, 5) THEN XENR_RSV = 3;       /*   Enrolled (<65) - civ PCM */
   ELSE IF INPUT(ENBGSMPL,8.) IN (4, 7,11) THEN XENR_RSV = 4;    /*   Not Enrolled (<65)       */
END;
ELSE IF INPUT(FIELDAGE,8.) > = 65 THEN DO;
    IF INPUT(ENBGSMPL,8.) = 10 THEN XENR_RSV = 5;                /*  Not Enrolled (65+)      */
    IF INPUT(ENBGSMPL,8.) = 9 THEN XENR_RSV = 6;                 /*  Enrolled (65+)-mil PCM   */
    IF INPUT(ENBGSMPL,8.) = 8 THEN XENR_RSV = 7;                 /*  Enrolled (65+)-civ PCM   */
END;


RUN;


DATA CONVARQ2;
   SET CONVARQ;
   WHERE FNSTATUS=11;
RUN;


/* CHECK RECONSTRUCTED 2009 VARIABLES */
PROC FREQ DATA=CONVARQ2;
 TABLES XENRLLMT XENR_PCM XINS_COV XBENCAT XENR_RSV XINS_RSV XREGION XTNEXREG
        XBMICAT ENBGSMPL XBNFGRP
        /*KMILOFFC KCIVOFFC KBGPRB1 KBGPRB2*/
        KMILOPQY KCIVOPQY HP_PRNTL HP_MAMOG HP_MAM50 HP_PAP HP_BP HP_FLU
        HP_SMOKE KCIVINS OUTCATCH
        HP_SMKH2 HP_CESH2 XBMI HP_OBESE XOCONUS
        / MISSING LIST;
 TITLE3 'ONE WAY FREQUENCIES ON 2009 RECONSTRUCTED VARIABLES';
 RUN;

/* CROSSTABS TO CHECK RECONSTRUCTION OF 2009 VARIABLES */
/* COLLAPSE AGE FOR CROSSTABS */
   PROC FORMAT;
     VALUE $AGE
             "017" -< "065" = "LESS THAN 65"
             "065" -< "120" = "65 OR OLDER"
             "O"      = "Out of range err"
             " "      = "Missing/unknown" ;
   RUN;



   PROC FREQ DATA=CONVARQ2;
    TABLES
           FIELDAGE*ENBGSMPL*XENRLLMT
           FIELDAGE*ENBGSMPL*XENR_PCM
           FIELDAGE*XENRLLMT*H09003*H09072*H09073*XINS_COV
           DBENCAT*XBENCAT
           FIELDAGE*ENBGSMPL*XENR_RSV*XENR_PCM
           FIELDAGE*XENRLLMT*H09003*H09072*H09073*XINS_COV*XINS_RSV
           XTNEXREG*XREGION*CACSMPL
           XREGION*USA
           FIELDAGE*ENBGSMPL*XBNFGRP
```

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```
        /*H09005*H08030*KMILOFFC*KCIVOFFC */
       /* H08013*KBGPRB1
        H08027*KBGPRB2*/
        H09005*H09013*KMILOPQY
        H09005*H09013*KCIVOPQY
        H09060*H09061*H09062*HP_PRNTL
        XSEXA*H09057*HP_PAP
        H09048*H09049*HP_BP
        FIELDAGE*H09050*HP_FLU
        H09053*HP_SMOKE
        H09002I*H09002J*H09002G*KCIVINS
        OUTCATCH*CACSMPL
        H09051*H09052*HP_SMKH2
        HP_SMKH2*H09053*HP_CESH2
        H09069F*H09069I*H09070*XBMI
        XBMICAT*HP_OBESE
        XREGION*XOCONUS*USA
        / MISSING LIST;
        FORMAT XSEXA HASEX. FIELDAGE $AGE.
               XBMICAT XBMICAT.
                     ;
      TITLE3 'CROSSTABS ON NEW VARIABLES';
            RUN;

    PROC FREQ DATA=CONVARQ2;
       tables XTNEXREG*XREGION*CACSMPL
            XTNEXREG*XREGION*CACSMPL*D_HEALTH*DCATCH

          / MISSING LIST;
    run;

/* COLLAPSE FOR MAMMOGRAPHY, BREAST CANCER, AND PROSTATE XTABS*/
    PROC FORMAT;
      VALUE $AGE2_
            "017" - "049" = "LESS THAN 50"
            "050" -< "120" = "50 OR OLDER"
            "O"      = "Out of range err"
            " "      = "Missing/unknown" ;

      VALUE $AGE3_
            "017" - "039" = "LESS THAN 40"
            "040" -< "120" = "40 OR OLDER"
            "O"      = "Out of range err"
            " "      = "Missing/unknown" ;
            RUN ;


        PROC FREQ DATA=CONVARQ2;
            TABLES XSEXA*FIELDAGE*H09059*HP_MAM50
                  /MISSING LIST;
                  FORMAT FIELDAGE $AGE2_. XSEXA HASEX.;
        RUN;

        PROC FREQ DATA=CONVARQ2;
            TABLES XSEXA*FIELDAGE*H09059*HP_MAMOG
                  /MISSING LIST;
                  FORMAT FIELDAGE $AGE3_. XSEXA HASEX.;
        RUN;

    PROC CONTENTS DATA=OUT.CONVARQ;
    RUN;
```

```
*****************************************************************************
*** Project: 2007 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Create cacsmpl for the reporting purpose for adult survey
***
*** Program: F:\Q2FY2007\Programs\construct\construct_cacsmpl.sas
***
*** Inputs:  extract.sas7bdat: Extracted DoD data set
***          TMA.sas7bdat:     DMIS information
***          frame_cacsmpl.inc:   Include file
***
*** Outputs: construct_cacsmpl.sas7bdat - the adult frame with cacsmpl in
***
*** Note: 01/03/2007 by Haixia Xu
***       This program is copied from q4fy2006 sampling,
***        and modified for Q2FY2007 to create the cacampl to be used for reporting, not for
sampling purpose
***
*****************************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=yes nocenter;* mprint mlogic symbolgen;

*** Set up the input and output paths. ***;
libname ext   v9   "K:\Q4FY2009\"; /* extract.sas7bdat */
libname inTMA v9   "..\..\Data\AFinal"; /* TMA.sas7bdat */
libname out        "..\..\Data\AFinal"; /* construct_cacsmpl.sas7bdat */

*** Set up the titles. ***;
title1 'Program: Construct_cacsmpl.SAS';
title2 'Construct cacsmpl for reporting';

data frame;
set ext.extract;
run;

title4 'Freq of PRRECFLG in the frame';
proc freq data=frame;
tables PRRECFLG/ missing list;
run;

/* MER 06/22/09 Added the following blocks to */
/* facilitate merge of selectq with the frame.*/
/* Resulting dataset renamed sample instead of*/
/* frame. */
proc sort data=frame;
   by mprid;
run;

data sample;
   merge frame(in=a) selectq(in=b keep = mprid);
   by mprid;
   if b=1;
run;

*****************************************************************************
* Added q2 2003, Don and Keith created a template to be used each quarter;
* The code below and the include file construct cacsmpl
* and collapse historically small catchment areas;
*****************************************************************************;
data TMA (keep = geocell d_par d_fac d_instal d_health d_dmis servaff);
   set inTMA.TMA;
   ***Extract the facility service code variable(servaff) starting with the November 2004TMA
spreadsheet in Q1,2005;
   rename facility_Type_Code=d_fac
          installation_Name=d_instal
          dmis_facility_Name=d_dmis
          facility_Service_Code=servaff ;
   length d_par $4.;
   d_par = DMIS_PARENT_ID;
   length geocell $4.;
   geocell = DMIS_ID;
```

```
   length d_health $2.;
   d_health = HEALTH_Service_region;
run;

title4 "Freq of servaff, d_fac in TMA spreadsheet";
proc freq data=TMA;
tables servaff d_fac/missing list;
run;

%include "construct_cacsmpl.inc" ;

data out.construct_cacsmpl;
   set t_sample(keep=mprid cacsmpl); /* MER 06/22/09 renamed from t_framea */
run;

title4 'Freq of cacsmpl';
proc freq data=out.construct_cacsmpl;
tables cacsmpl/missing list;
run;

title4 'Information for the Sample';
proc contents data = out.construct_cacsmpl;
run;

*************** The End ******************;
```

F.4.C   Q4FY2009\PROGRAMS\CONSTRUCT\CONSVAR0.SAS - INCLUDE FILE FOR CONVARQ.SAS.

```
****************************************************************************
*   PROGRAM:   CONSVAR0.SAS
*   TASK:      1999 DOD HEALTH CARE SURVEY ANALYSIS (8676-100)
*   PURPOSE:   Create XREGION and CONUS
*
*   WRITTEN:  February 11, 2000
*   MODIFIED: 1) February 23, 2000 By Keith Rathbun.  Converted into an include
*                file.  Updated code accordingly.
*             2) February 26, 2001 By Keith Rathbun.  Added recode for CACSMPL
*                weighting purposes.
*             3) September 13, 2004 By Keith Rathbun. Added 6223 to XREGION=1.
*             4) September 15, 2004 By Keith Rathbun. Recoded XREGION=0 to missing.
*             5) September 28, 2004 By Jacqueline Agufa-Maloba. Created XTNEXREG.
*             6) February 9, 2005 by Lucy Lu. Fix catchment and xreg.
*             7) March 16,2005 by Jacqueline Agufa-Maloba.  Update XREGION for
*                cases where CACSMPL=9901,9902,9903,9904. XREGION had a value of
*                17,18 or 19 and will be changed to values from the dataset
*                region_map01.sas7bdat
*             8) May 22, 2005 By Jacqueline Agufa.  Added 0405 to XREGION=3 and
*                0231, 0407,  6215 to XREGION=9.
*             9) July 6, 2006 by Lucy Lu. Add XOCONUS (region 13,14,15) for Q3 FY2006
*            10) February 6, 2007 by Jacqueline Agufa. Moved the code to create SERVAREA from
*                 MERGESYN.sas to here.
*            11) January 16, 2009 by Mike Rudacille. Changed CONUS variable name to USA
*
*     NOTES:  1) This file needs to be included in the CONVARQ.SAS program.
*
****************************************************************************
* Assign XREGION using CACSMPL
****************************************************************************;
IF     CACSMPL IN (0035, 0036, 0037, 0066, 0067,
                   0068, 0069, 0081, 0086, 0100,
                   0123, 0306, 0310, 0321, 0326,
                   0330, 0385, 0413, 6201, 6223) THEN XREGION= 1;
ELSE IF CACSMPL IN (0089, 0090, 0091, 0092, 0120,
                   0121, 0122, 0124, 0335, 0378, 0387, 0432,
                   0433, 0508, 7143, 7286, 7294) THEN XREGION= 2;
ELSE IF CACSMPL IN (0039, 0041, 0045, 0046, 0047,
                   0048, 0049, 0050, 0051, 0101,
                   0103, 0104, 0105, 0337, 0356,
                   0405, 0422, 0511, 5191  ) THEN XREGION= 3;
ELSE IF CACSMPL IN (0001, 0002, 0003, 0004, 0038,
                   0042, 0043, 0073, 0074, 0107,
                   0297, 7139          ) THEN XREGION= 4;
ELSE IF CACSMPL IN (0055, 0056, 0060, 0061, 0095,
                   5195, 9905          ) THEN XREGION= 5;
ELSE IF CACSMPL IN (0013, 0062, 0064, 0096, 0097,
                   0098, 0109, 0110, 0112, 0113,
                   0114, 0117, 0118, 0338, 0363,
                   0364, 0365, 0366, 1350, 1587, 1592, 7236, 9906       ) THEN XREGION= 6;
ELSE IF CACSMPL IN (0008, 0009, 0010, 0079, 0083,
                   0084, 0085, 0108, 9907      ) THEN XREGION= 7;
ELSE IF CACSMPL IN (0031, 0032, 0033, 0053, 0057,
                   0058, 0059, 0075, 0076, 0077,
                   0078, 0093, 0094, 0106, 0119,
                   0129, 0252, 7200, 7293, 9908            ) THEN XREGION= 8;
ELSE IF CACSMPL IN (0018, 0019, 0024, 0026, 0029, 0030,
                   0131, 0213, 0231, 0248, 0407, 5205,
                   6215, 9909  ) THEN XREGION= 9;
ELSE IF CACSMPL IN (0014, 0015, 0028, 0235, 0250,
                   9910                     ) THEN XREGION=10;
ELSE IF CACSMPL IN (0125, 0126, 0127, 0128, 0395, 1646,
                   9911                     ) THEN XREGION=11;
ELSE IF CACSMPL IN (0052, 0280, 0287, 0534, 7043, 9912 ) THEN XREGION=12;
ELSE IF CACSMPL IN (0606, 0607, 0609, 0617, 0618,
                   0623, 0624, 0629, 0633, 0635,
                   0653, 0805, 0806, 0808, 0814,
                   8931, 8982, 9913         ) THEN XREGION=13;
ELSE IF CACSMPL IN (0610, 0612, 0620, 0621, 0622,
                   0637, 0638, 0639, 0640, 0802,
                   0804, 0853, 0862, 9914      ) THEN XREGION=14;
```

```
ELSE IF CACSMPL IN (0449, 0613, 0615, 0616, 9915 ) THEN XREGION=15;
ELSE IF CACSMPL IN (0005, 0006, 0203, 9916        ) THEN XREGION=16;
ELSE IF CACSMPL = 9999                             THEN XREGION= .;

*IF CACSMPL IN (9901,9902,9903,9904) THEN XREGION=D_HEALTH+0;  *JMA 2/17/2005;

/* JMA 5/18/2005 These values were gotten from UpdateXregion.lst
   We needed to update the missing XREGION for cases where CACSMPL IN
   9901,9902,9903,9904
   -per Eric Schone
   -FOR Q1 2005
*/

IF CACSMPL IN (9901,9902,9903,9904) THEN DO;
   IF D_HEALTH NOT IN ('00','17','18','19') THEN DO;
      XREGION=INPUT(D_HEALTH,8.)+0;
   END;
   ELSE DO;
      IF  DCATCH IN ('0037', '0067', '0123', '0781', '0907',
                     '0908', '0920', '0921', '0922', '0930',
                     '0931', '0933', '0939', '0940', '0946',
                     '0995')
      THEN XREGION=1;
      ELSE IF DCATCH IN ('0124', '0934', '0996')
           THEN XREGION=2;
      ELSE IF DCATCH IN ('0039', '0048', '0105', '0911', '0941',
                         '0987')
           THEN XREGION=3;
      ELSE IF DCATCH IN ('0003', '0787', '0901', '0925', '0943',
                         '0988', '0989')
           THEN XREGION=4;
      ELSE IF DCATCH IN ('0055', '0056', '0061', '0782', '0783',
                         '0789', '0914', '0915', '0918', '0923',
                         '0936', '0950')
           THEN XREGION=5;
      ELSE IF DCATCH IN ('0113', '0904', '0937', '0990', '0993')
           THEN XREGION=6;
      ELSE IF DCATCH IN ('0785', '0929', '0932')
           THEN XREGION=7;
      ELSE IF DCATCH IN ('0078', '0784', '0788', '0906', '0917',
                         '0924', '0927', '0928', '0935', '0942',
                         '0945', '0951', '0974')
           THEN XREGION=8;
      ELSE IF DCATCH IN ('0029', '0786', '0986')
           THEN XREGION=9;
      ELSE IF DCATCH IN ('0014', '0985')
           THEN XREGION=10;
      ELSE IF DCATCH IN ('0125', '0938', '0948', '0973')
           THEN XREGION=11;
      ELSE IF DCATCH IN ('0912')
           THEN XREGION=12;
      ELSE IF DCATCH IN ('0957', '0958', '0960', '0964', '0966',
                         '0967', '0976', '0977', '0979',
                         '0982')
           THEN XREGION=13;
      ELSE IF DCATCH IN ('0006', '0052', '0640', '0961', '0963',
                         '0965', '0978', '0983')
           THEN XREGION=14;
      ELSE IF DCATCH IN ('0075', '0120', '0615', '0622','0953',
                         '0970', '0971', '0972', '0975')
           THEN XREGION=15;
      ELSE IF DCATCH IN ('0902')
           THEN XREGION=16;
/*      ELSE IF DCATCH IN ('0999') AND DHSRGN IN ('13','14','15')
           THEN XREGION=DHSRGN+0;
*/
   END;
END;


IF D_PAR = '0902' THEN XREGION=16;
IF XREGION = 0 THEN XREGION = .;

**************************************************************************
```

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```
* Assign indicator of CONUS based on XREGION.  CONUS stands for
* Continental United States it but includes both Alaska and Hawaii.
* 1/16/09 - Changed CONUS variable to USA.
***************************************************************************;
IF     XREGION IN (1,2,3,4,5,6,7,8,9,10,11,12,16) THEN USA=1;
ELSE IF XREGION IN (13,14,15)                      THEN USA=0;
ELSE IF XREGION = .                                THEN USA=.;


***************************************************************************
* Assign XTNEXREG using XREGION
***************************************************************************;
IF XREGION IN (1,2,5) THEN XTNEXREG=1;
ELSE IF XREGION IN (3,4,6) THEN XTNEXREG=2;
ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG=3;
ELSE IF XREGION IN (13,14,15) THEN XTNEXREG=4;



***************************************************************************
* CREATE XOCONUS FOR  europe, pacific, latin america
* Lucy Lu 7/6/06
***************************************************************************;

IF     XREGION=13 THEN XOCONUS=1;
ELSE IF XREGION=14 THEN XOCONUS=2;
ELSE IF XREGION=15 THEN XOCONUS=3;

    ***********************************************************************
    * Construct SERVAREA.
    ***********************************************************************;
    IF ENBGSMPL IN ('04','07','10') THEN DO;
       SELECT(CACSMPL);
          WHEN (0024,0029)            SERVAREA='01';
          WHEN (0032,0033)            SERVAREA='02';
          WHEN (0037,0066,0067,0123)  SERVAREA='03';
          WHEN (0038,0042)            SERVAREA='04';
          WHEN (0049,0103,0104)       SERVAREA='05';
          WHEN (0091,0092)            SERVAREA='06';
          WHEN (0098,0113)            SERVAREA='07';
          WHEN (0101,0105)            SERVAREA='08';
          WHEN (0109,0117)            SERVAREA='09';
          WHEN (0120,0121,0124)       SERVAREA='10';
          WHEN (0125,0126,0127)       SERVAREA='11';
          OTHERWISE SERVAREA=' ';
       END;
    END;
```

F.5.A   Q4FY2009\PROGRAMS\CONSTRUCT\MERGEQ.SAS - MERGE CONSTRUCTED VARIABLES ONTO DATA FILE.

```
***************************************************************************
* PROGRAM:   MERGEQ.SAS
* WRITTEN:   1/28/00 BY KELLY WHITE
* MODIFIED:  3/1/00 BY NATALIE JUSTH
* MODIFIED:  11/16/00 BY JOAN JAMES
* MODIFIED:  1/30/01 BY NATALIE JUSTH
* MODIFIED:  6/6/01 BY NATALIE JUSTH FOR Q2 UPDATES
* MODIFIED:  8/20/01 BY NATALIE JUSTH FOR Q3 UPDATES
* MODIFIED: 12/13/01 BY NATALIE JUSTH FOR Q4 UPDATES
* MODIFIED: 2/11/02 By Daniele Beahm to delete H00077 variable and reassign format for
*           S00S01 variable
* MODIFIED: 4/11/02 By JACLYN WONG FOR Q1 UPDATES
* MODIFIED: 6/21/02 by JACLYN WONG FOR Q2 UPDATES
* MODIFIED: 7/1/2002 By Daniele Beahm to delete SF8 variables not used for Q2 2002
* MODIFIED: 10/16/2002 By Daniele Beahm to delete Q2 2002 Supplemental vars that were on the
*           Q3 2002 data file from NRC.
* MODIFIED: 01/02/2003 By Keith Rathbun: Added ONTIME variable to support the annual
*           version of the database (trickle indicator).  This ONTIME variable is
*           only applicable to the annual file and thus should be deleted for the
*           quarterly version of this program.
* MODIFIED: 3/24/02 by JACLYN WONG FOR Q1 2003 UPDATES.  Added HP_SMOKH, HP_CESS, and KPRSCPTN
* MODIFIED: 8/29/03 by NATALIE JUSTH FOR Q3 2003 UPDATES
* MODIFIED: 12/19/03 by NATALIE JUSTH FOR Q4 2003 UPDATES
* MODIFIED: 3/29/04 BY LUCY LU FOR Q1 2004 UPDATES
* MODIFIED: 6/10/04 BY LUCY LU FOR Q2 2004 UPDATES
* MODIFIED: 9/13/04 BY LUCY LU FOR Q3 2004 UPDATES
* MODIFIED: 11/10/04 BY LUC LU, DROP VARIABLE STIELIG.
* MODIFIED: 2/1/05 BY LUCY LU FOR Q4 2004 UPDATES
* MODIFIED: 2/17/2005 BY JACQUELINE AGUFA. Added code to get updated CACSMPL from
*           REPWT.sd2
* MODIFIED: 5/3/05 BY LUCY LU FOR Q1 2005 UPDATES.
* MODIFIED: 10/24/05 BY LUCY LU FOR Q3 2005 UPDATES.
* MODIFIED: 11/1/05 BY J AGUFA. Dropped E1-E19
* MODIFIED: 12/21/05 BY LUCY LU FOR Q4 2005
* MODIFIED: 03/29/06 BY LUCY LU FOR Q2 FY 2006
* MODIFIED: 07/07/06 BY LUCY LU FOR q3 FY 2006
* MODIFIED: 10/07/06 BY LUCY LU FOR q4 FY 2006
* MODIFIED: 1/2/07 BY J AGUFA FOR q1 FY 2007
* MODIFIED: 3/29/07 BY J AGUFA FOR q2 FY 2007
* MODIFIED: 7/05/07 BY J AGUFA FOR q3 FY 2007
* MODIFIED: 1/22/08 BY J AGUFA FOR q1 FY 2007
* MODIFIED: 10/1/08 BY M RUDACILLE FOR q4 FY 2008
*
* PURPOSE:   TO MERGE FINAL FILES TOGETHER AND REORDER BY VARIABLE TYPE
*            To reorder variables within the record use a
*             LENGTH statement before the SET statement.
*             Make sure that MPRID is the first variable in the
*             record followed by:
*                         1)  other sampling variables
*                         2)  DEERS variables
*                         3)  Post-stratification vars
*                         4)  questionnaire responses
*                         5)  DRC variables
*                         6)  recoded questionnaire responses
*                         3)  coding scheme flags
*                         8)  constructed variables
*                         9)  weights  (NOT AVAILABLE FOR PRELIMINARY DATA)
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.sas7bdat
* INPUT:     ..\..\DATA\AFINAL\CONVARQ.sas7bdat
* INPUT:     ..\..\DATA\AFINAL\CONVARSF.sas7bdat
* OUTPUT:    ..\..\DATA\AFINAL\MERGEQ.sas7bdat
* INCLUDE:   SERVAFF.SAS
*            TO MERGE ON VARIABLE SERVAFF
***************************************************************************
*;
LIBNAME IN1     v9   '..\..\DATA\AFINAL';
LIBNAME OUT     V9   '..\..\DATA\AFINAL';
LIBNAME LIBRARY      '..\..\DATA\AFINAL\FMTLIB';

OPTIONS PS=78 LS=124 ERRORS=2 COMPRESS=YES ; *MPRINT;
```

```
%INCLUDE SERVAFF/SOURCE2;          *LLU 2/9/05;

PROC SORT DATA=IN1.SELECTQ OUT=SELECTQ;
   BY MPRID;
RUN;


PROC SORT DATA=IN1.CONVARQ OUT=CONVARQ;
   BY MPRID;
RUN;


PROC SORT DATA=IN1.SERVAFF OUT=SERVAFF;
   BY MPRID;
RUN;

PROC FREQ DATA=SERVAFF;
   TABLES SERVAFF;
RUN;


DATA MERGEQ (DROP =
H09001_O
H09002AO
H09002CO
H09002NO
H09002OO
H09002PO
H09002QO
H09002FO
H09002GO
H09002HO
H09002IO
H09002JO
H09002KO
H09002MO
H09002RO
H09002LO
H09003_O
H09004_O
S09J01_O
S09J02AO
S09J02BO
S09J02CO
S09J02DO
S09J02EO
S09J02FO
S09J02GO
S09J02HO
S09J02IO
S09J03_O
S09J04_O
S09J05_O

S09J05N

S09J06_O
S09J07AO
S09J07BO
S09J07FO
S09J07IO
S09J07JO
S09J07GO
S09J07DO
S09J07EO
S09J07CO
S09J07MO
S09J07NO
S09J07HO
S09J07KO
S09J07LO
S09J08_O
S09J09AO
S09J09DO
```

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```
S09J09IO
S09J09JO
S09J09HO
S09J09CO
S09J09EO
S09J09FO
S09J09BO
S09J09GO
S09J09KO
S09J09LO
S09J10_O
H09005_O
H09006_O
H09007_O
H09008_O
H09009_O
H09010_O
H09011_O
H09012_O
H09013_O
H09014_O
H09015_O
H09016_O
H09017_O
H09018_O
H09019_O
H09020_O
H09021_O
H09022_O
H09023_O
H09024_O
H09025_O
H09026_O
H09027_O
S09009_O
S09010_O
H09028_O
H09029_O
H09030_O
H09031_O
S09B01_O
S09B02_O
S09B03_O
S09B04_O
H09032_O
H09033_O
H09034BO
H09034_O
H09035_O
H09036_O
H09037_O
H09038_O
H09039_O
H09040_O
H09041_O
H09042_O
H09043_O
H09044_O
H09045_O
H09046_O
H09047_O
H09048_O
H09049_O
H09050_O
H09051_O
H09052_O
H09053_O
H09054_O
H09055_O
S09D03_O
S09D02_O
H09056_O
H09057_O
H09058_O
```

```
H09059_O
H09060_O
H09061_O
H09062_O
H09063_O
H09064_O
H09065_O
H09066_O
H09067_O
H09068_O
H09069FO
H09069IO
H09070_O

H09069FN
H09069IN
H09070N

SREDA_O
H09071AO
H09071BO
H09071CO
H09071DO
H09071EO
SRRACEAO
SRRACEBO
SRRACECO
SRRACEDO
SRRACEEO
SRAGE_O
H09072_O
H09073_O
H09074_O
S09Z02_O
S09Z03_O
S09Z04_O
S09Z06_O
S09Z07_O
S09Z10_O
S09Z11_O
S09Z12_O
S09Z13_O
S09Z14_O
S09Z01_O
S09Z15_O
S09Z16_O
S09Z17_O
S09J11_O
S09J12_O
PRRECFLG

D_DMIS
DMIS
R_MTF
GROUP
GRP_GEO

);


   MERGE SELECTQ(in=hcsdb rename=(flag_fin=dummy))
         CONVARQ
         SERVAFF(DROP=PCM DCATCH);
   BY MPRID;
   if hcsdb;

/*MAKE FLAG_FIN IN Q3 CHARACTER*/
   FLAG_FIN=PUT(DUMMY,5.);                /*LLU 2/9/05*/
   DROP DUMMY;


FORMAT
   SERVAFF  $SERVAFF.
   ENBGSMPL $ENBGS.
```

```
      CACSMPL  CAC.
      DBENCAT  $BENCAT.
      DMEDELG  $MEDELG.
      DSPONSVC $SPONSVC.
      FLAG_FIN $FINAL.
      FNSTATUS FNSTATS.
      MBRRELCD $MBRREL.
      MEDTYPE  $MEDTYP.
      MRTLSTAT $MSTATUS.
      PATCAT   $AGGBCAT.
      MISS_1   HAMISS.
      MISS_4   HAMISS.
      MISS_5   HAMISS.
      MISS_6   HAMISS.
      MISS_7   HAMISS.
      MISS_8   HAMISS.
      MISS_9   HAMISS.
      MISS_TOT HAMISS.
      PCM      $PCM.
      PNLCATCD $PNLCAT.
      PNSEXCD  $SEXCD.
      RACEETHN $RACECD.
      SEXSMPL  SEX.
      SVCSMPL  SVCSMPL.
      XSEXA    HASEX.
      SERVAREA $SRVAREA.
      MPCSMPL  MPCSMPL.
      D_HEALTH $DHEALTH.
      TNEXREG  $TNEXREG.
      D_FAC    $DFAC.
      MSM      $MSM.
      XBMICAT  XBMICAT.
      ENRID    $ENRID.
      WEB      WEB.
      XOCONUS  XOCONUS.
      ACV      $ACV2_.

      XSERVAFF XSERVAFF.

      PNTYPCD  $PNTYPCD.

      MPRID    $8.         /*Remove extra format space ($43) provided by NRC*/
   ;

   LABEL
      ENBGSMPL = "Enrollment by beneficiary category"
      SERVAFF  = "Service Affiliation"
      MPCSMPL  = "MPCSMPL - Military Personnel Category"
      FLAG_FIN = "Final Despisition"
      CACSMPL  = "Catchment Area"
      WEB      = "Web survey indicator"
      D_PAR    = "DMIS Parent ID"
      D_Health = "Health Service Region"
      TNEXREG  = "TNEX Region"
      MSM      = 'Multiple Service Market Areas'
      MIQCNTL  = 'Synovate ID'
      XSERVAFF = "Service Affiliation"
      SERVAREA = 'Service Area'
      ;

RUN;

PROC CONTENTS DATA=MERGEQ;
RUN;


DATA OUT.MERGEQ;

   LENGTH

      MPRID      $ 8         /* ID            */
      SVCSMPL      8         /* sampling variable */
      SEXSMPL      8         /* sampling variable */
      STRATUM    $ 7         /* sampling variable */
```

```
CACSMPL       8              /* sampling variable */
ENBGSMPL    $ 2              /* sampling variable */
MPCSMPL       8              /* sampling variable */
NHFF          8              /* sampling variable */
SERVAREA    $ 2              /* sampling variable */
QUARTER     $ 8              /* sampling variable */
PRN           8              /* sampling variable */
DCATCH      $ 4              /* sampling variable */
ENRID       $ 4              /* sampling variable */
DMIS_ID     $ 9              /* sampling variable */
MSM         $ 2              /* sampling variable */
D_FAC       $ 9              /* sampling variable */
D_PAR       $ 4              /* sampling variable */
D_HEALTH    $ 2              /* sampling variable */
TNEXREG     $ 1              /* sampling variable */
SERVAFF     $ 1              /* sampling variable */
BWT           8              /* sampling variable */


MRTLSTAT    $ 1              /* DEERS variable    */
RACEETHN    $ 1              /* DEERS variable    */
PNSEXCD     $ 1              /* DEERS variable    */
DAGEQY      $ 3              /* DEERS variable    */
FIELDAGE    $ 3              /* DEERS variable    */
PCM         $ 3              /* DEERS variable    */
ACV         $ 1              /* DEERS variable    */
DBENCAT     $ 3              /* DEERS variable    */
DMEDELG     $ 1              /* DEERS variable    */
DSPONSVC    $ 1              /* DEERS variable    */
MBRRELCD    $ 1              /* DEERS variable    */
MEDTYPE     $ 1              /* DEERS variable    */
PATCAT      $ 7              /* DEERS variable    */
PNTYPCD     $ 1              /* DEERS variable    */
PNLCATCD    $ 1              /* DEERS variable    */


H09001        4              /* questionnaire     */
H09002A       4              /* questionnaire     */
H09002C       4              /* questionnaire     */
H09002N       4              /* questionnaire     */
H09002O       4              /* questionnaire     */
H09002P       4              /* questionnaire     */
H09002Q       4              /* questionnaire     */
H09002F       4              /* questionnaire     */
H09002G       4              /* questionnaire     */
H09002H       4              /* questionnaire     */
H09002I       4              /* questionnaire     */
H09002J       4              /* questionnaire     */
H09002K       4              /* questionnaire     */
H09002M       4              /* questionnaire     */
H09002R       4              /* questionnaire     */
H09002L       4              /* questionnaire     */
H09003        4              /* questionnaire     */
H09004        4              /* questionnaire     */
H09005        4              /* questionnaire     */
H09006        4              /* questionnaire     */
H09007        4              /* questionnaire     */
H09008        4              /* questionnaire     */
H09009        4              /* questionnaire     */
H09010        4              /* questionnaire     */
H09011        4              /* questionnaire     */
H09012        4              /* questionnaire     */
H09013        4              /* questionnaire     */
H09014        4              /* questionnaire     */
H09015        4              /* questionnaire     */
H09016        4              /* questionnaire     */
H09017        4              /* questionnaire     */
H09018        4              /* questionnaire     */
H09019        4              /* questionnaire     */
H09020        4              /* questionnaire     */
H09021        4              /* questionnaire     */
H09022        4              /* questionnaire     */
H09023        4              /* questionnaire     */
H09024        4              /* questionnaire     */
```

```
H09025      4              /* questionnaire    */
H09026      4              /* questionnaire    */
H09027      4              /* questionnaire    */
H09028      4              /* questionnaire    */
H09029      4              /* questionnaire    */
H09030      4              /* questionnaire    */
H09031      4              /* questionnaire    */
H09032      4              /* questionnaire    */
H09033      4              /* questionnaire    */
H09034B     4              /* questionnaire    */
H09034      4              /* questionnaire    */
H09035      4              /* questionnaire    */
H09036      4              /* questionnaire    */
H09037      4              /* questionnaire    */
H09038      4              /* questionnaire    */
H09039      4              /* questionnaire    */
H09040      4              /* questionnaire    */
H09041      4              /* questionnaire    */
H09042      4              /* questionnaire    */
H09043      4              /* questionnaire    */
H09044      4              /* questionnaire    */
H09045      4              /* questionnaire    */
H09046      4              /* questionnaire    */
H09047      4              /* questionnaire    */
H09048      4              /* questionnaire    */
H09049      4              /* questionnaire    */
H09050      4              /* questionnaire    */
H09051      4              /* questionnaire    */
H09052      4              /* questionnaire    */
H09053      4              /* questionnaire    */
H09054      4              /* questionnaire    */
H09055      4              /* questionnaire    */
H09056      4              /* questionnaire    */
H09057      4              /* questionnaire    */
H09058      4              /* questionnaire    */
H09059      4              /* questionnaire    */
H09060      4              /* questionnaire    */
H09061      4              /* questionnaire    */
H09062      4              /* questionnaire    */
H09063      4              /* questionnaire    */
H09064      4              /* questionnaire    */
H09065      4              /* questionnaire    */
H09066      4              /* questionnaire    */
H09067      4              /* questionnaire    */
H09068      4              /* questionnaire    */
H09069F     4              /* questionnaire    */
H09069I     4              /* questionnaire    */
H09070      4              /* questionnaire    */
SREDA       4              /* questionnaire    */
H09071      4              /* questionnaire    */
H09071A     4              /* questionnaire    */
H09071B     4              /* questionnaire    */
H09071C     4              /* questionnaire    */
H09071D     4              /* questionnaire    */
H09071E     4              /* questionnaire    */
SRRACEA     4              /* questionnaire    */
SRRACEB     4              /* questionnaire    */
SRRACEC     4              /* questionnaire    */
SRRACED     4              /* questionnaire    */
SRRACEE     4              /* questionnaire    */
SRAGE       4              /* questionnaire    */
H09072      4              /* questionnaire    */
H09073      4              /* questionnaire    */
H09074      4              /* questionnaire    */


S09J01      4              /* supplemental     */
S09J02A     4              /* supplemental     */
S09J02B     4              /* supplemental     */
S09J02C     4              /* supplemental     */
S09J02D     4              /* supplemental     */
S09J02E     4              /* supplemental     */
S09J02F     4              /* supplemental     */
S09J02G     4              /* supplemental     */
```

```
S09J02H       4              /* supplemental       */
S09J02I       4              /* supplemental       */
S09J03        4              /* supplemental       */
S09J04        4              /* supplemental       */
S09J05        4              /* supplemental       */
S09J06        4              /* supplemental       */
S09J07A       4              /* supplemental       */
S09J07B       4              /* supplemental       */
S09J07F       4              /* supplemental       */
S09J07I       4              /* supplemental       */
S09J07J       4              /* supplemental       */
S09J07G       4              /* supplemental       */
S09J07D       4              /* supplemental       */
S09J07E       4              /* supplemental       */
S09J07C       4              /* supplemental       */
S09J07M       4              /* supplemental       */
S09J07N       4              /* supplemental       */
S09J07H       4              /* supplemental       */
S09J07K       4              /* supplemental       */
S09J07L       4              /* supplemental       */
S09J08        4              /* supplemental       */
S09J09A       4              /* supplemental       */
S09J09D       4              /* supplemental       */
S09J09I       4              /* supplemental       */
S09J09J       4              /* supplemental       */
S09J09H       4              /* supplemental       */
S09J09C       4              /* supplemental       */
S09J09E       4              /* supplemental       */
S09J09F       4              /* supplemental       */
S09J09B       4              /* supplemental       */
S09J09G       4              /* supplemental       */
S09J09K       4              /* supplemental       */
S09J09L       4              /* supplemental       */
S09J10        4              /* supplemental       */
S09009        4              /* supplemental       */
S09010        4              /* supplemental       */
S09B01        4              /* supplemental       */
S09B02        4              /* supplemental       */
S09B03        4              /* supplemental       */
S09B04        4              /* supplemental       */
S09D03        4              /* supplemental       */
S09D02        4              /* supplemental       */
S09Z02        4              /* supplemental       */
S09Z03        4              /* supplemental       */
S09Z04        4              /* supplemental       */
S09Z06        4              /* supplemental       */
S09Z07        4              /* supplemental       */
S09Z10        4              /* supplemental       */
S09Z11        4              /* supplemental       */
S09Z12        4              /* supplemental       */
S09Z13        4              /* supplemental       */
S09Z14        4              /* supplemental       */
S09Z01        4              /* supplemental       */
S09Z15        4              /* supplemental       */
S09Z16        4              /* supplemental       */
S09Z17        4              /* supplemental       */
S09J11        4              /* supplemental       */
S09J12        4              /* supplemental       */

ONTIME      $ 3              /* Survey fielding variable */
FLAG_FIN    $ 5              /* Survey fielding variable */
DUPFLAG     $ 3              /* Survey fielding variable */
FNSTATUS      8              /* Survey fielding variable */
KEYCOUNT      8              /* Survey fielding variable */
WEB           8              /* Survey fielding variable */
MIQCNTL     $ 12             /* Survey fielding variable */

N1            8              /* CS flag variable    */
N1A1          8              /* CS flag variable    */
N1A2          8              /* CS flag variable    */
N1A3          8              /* CS flag variable    */
N1A4          8              /* CS flag variable    */
N1A5          8              /* CS flag variable    */
N2            8              /* CS flag variable    */
```

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```
        N3          8           /* CS flag variable    */
        N4          8           /* CS flag variable    */
        N5          8           /* CS flag variable    */
        N6          8           /* CS flag variable    */
        N7          8           /* CS flag variable    */
        N8          8           /* CS flag variable    */
        N8A1        8           /* CS flag variable    */
        N9          8           /* CS flag variable    */
        N10         8           /* CS flag variable    */
        N10A1       8           /* CS flag variable    */
        N11         8           /* CS flag variable    */
        N11B        8           /* CS flag variable    */
        N12         8           /* CS flag variable    */
        N13         8           /* CS flag variable    */
        N14         8           /* CS flag variable    */
        N15         8           /* CS flag variable    */
        N16         8           /* CS flag variable    */
        N17         8           /* CS flag variable    */
        N18         8           /* CS flag variable    */
        N19A        8           /* CS flag variable    */
        N19B        8           /* CS flag variable    */
        N20         8           /* CS flag variable    */
        N21         8           /* CS flag variable    */
        N22         8           /* CS flag variable    */
        N23         8           /* CS flag variable    */
        N24         8           /* CS flag variable    */
        N24B1       8           /* CS flag variable    */
        N24B2       8           /* CS flag variable    */


        MISS_1      8           /* CS Count            */
        MISS_4      8           /* CS Count            */
        MISS_5      8           /* CS Count            */
        MISS_6      8           /* CS Count            */
        MISS_7      8           /* CS Count            */
        MISS_8      8           /* CS Count            */
        MISS_9      8           /* CS Count            */
        MISS_TOT    8           /* CS Count            */

        XENRLLMT    8           /* constructed      */
        XENR_PCM    8           /* constructed      */
        XINS_COV    8           /* constructed      */
        XBENCAT     8           /* constructed      */
        XENR_RSV    8           /* constructed      */
        XINS_RSV    8           /* constructed      */
        XREGION     3           /* constructed      */
        XTNEXREG    3           /* constructed      */
        USA         3           /* constructed      */
        XOCONUS     3           /* constructed      */
        OUTCATCH    8           /* constructed      */
        XSEXA       8           /* constructed      */
        XBMI        8           /* constructed      */
        XBMICAT     3           /* constructed      */
        XBNFGRP     8           /* constructed      */
        XSERVAFF    3           /* constructed      */
        KMILOPQY    8           /* constructed      */
        KCIVOPQY    8           /* constructed      */
        KCIVINS     8           /* constructed      */
        HP_PRNTL    8           /* constructed      */
        HP_MAMOG    8           /* constructed      */
        HP_MAM50    8           /* constructed      */
        HP_PAP      8           /* constructed      */
        HP_BP       8           /* constructed      */
        HP_FLU      8           /* constructed      */
        HP_OBESE    8           /* constructed      */
        HP_SMOKE    8           /* constructed      */
        HP_SMKH2    8           /* constructed      */
        HP_CESH2    8           /* constructed      */
    ;

    SET MERGEQ;

    RUN;
```

```
PROC CONTENTS DATA=OUT.MERGEQ POSITION;
   title  "HCSDB for Q4 FY 2009, ordered by variable type";
   RUN;

PROC FREQ DATA=OUT.MERGEQ;
TABLE PCM ACV CACSMPL/MISSPRINT;
RUN;
```

F.5.B   Q4FY2009\PROGRAMS\CONSTRUCT\SERVAFF.SAS - MERGE SERVAFF VARIABLE TO QUARTERLY DATA FILE.

```
/******************************************************************************/
/* PROJECT: 8687-100 (DOD QUARTERLY 2001)                                  */
/* AUTHOR:  NATALIE JUSTH                                                   */
/* DATE:    APRIL 24, 2001                                                 */
/* UPDATED: JUNE 5, 2001 FOR QUARTER 2                                     */
/* UPDATED: AUGUST 20, 2001 FOR QUARTER 3                                  */
/* UPDATED: DECEMBER 13, 2001 FOR QUARTER 4                                */
/* UPDATED: JANUARY 23, 2002 FOR MOVE TO DOD COMPUTER                      */
/* UPDATED: FEBUARY 1, 2005 FOR Q4, 2004                                   */
/*                                                                          */
/* PURPOSE: MERGE VARIABLE SERVAFF TO QUARTERLY DATASET                    */
/* INPUT:   ...\DATA\AFINAL\S200204.sas7bdat                              */
/*          ...\DATA\AFINAL\SAMPLA02.sas7bdat                             */
/* OUTPUT:  ...\DATA\AFINAL\SERVAFF.sas7bdat                              */
/******************************************************************************/

LIBNAME  INr      "K:\Q4FY2009\"; /*Restricted folder*/
LIBNAME TMA   V9  '..\..\DATA\AFINAL';
LIBNAME serv  V9  '..\..\DATA\AFINAL';


/* Create new DMIS merge variable          */
/* First use ENRID, then ULOCDMIS, then DCATCH */

DATA SAMPLA02(KEEP=DMIS_ID ENRID MSM MPRID PCM DCATCH);
   SET INr.SAMPLA02(Rename=(PCM=oPCM));
   LENGTH DMIS_ID $9;
   DMIS_ID=ENRID;
   IF DMIS_ID=' ' THEN DO;
      IF ULOCDMIS NE ' ' THEN DMIS_ID=ULOCDMIS;
      ELSE DMIS_ID=DCATCH;
   END;

   /************************************************************************
      llu 10/287/05.  Reconstruct PCM since it is wrong in the Q3
      2005 sample
    ************************************************************************/

  LENGTH PCM $3.;

  IF ACV in ('Z', ' ') THEN PCM = ' ';
    ELSE IF ('6900' < DMIS_ID <= '6919' OR
       '7900' < DMIS_ID <= '7919' OR
       '8000' < DMIS_ID < '8090' OR
       '0190' <= DMIS_ID <= '0199')
  THEN PCM='CIV';
  ELSE PCM='MTF';

  **************************************************************************
  * Construct MSM.
  **************************************************************************;


  IF PCM = 'MTF' THEN DO;
     SELECT(DMIS_ID);
        WHEN ('0037', '0066', '0067', '0068', '0069',
              '0123', '0256', '0306', '0309', '0385', '0413') MSM='01';
        WHEN ('0120', '0121', '0124')                     MSM='02';
        WHEN ('0089', '0335')                             MSM='03';
        WHEN ('0103', '0356')                             MSM='04';
        WHEN ('0101', '0105')                             MSM='05';
        WHEN ('0297', '0316', '0436', '0654', '1990', '0073') MSM='06';
        WHEN ('0109', '0117', '0363', '0366')             MSM='07';
        WHEN ('0032', '0033', '0252', '7200')             MSM='08';
        WHEN ('0024', '0029')                             MSM='09';
        WHEN ('0125', '0126', '0127', '0395', '7138')     MSM='10';
        WHEN ('0052', '0280', '0287')                     MSM='11';
        WHEN ('0204', '0006')                             MSM='12';
        WHEN ('0005', '0203')                             MSM='13';
```

```
            OTHERWISE MSM='   ';
        END;
    END;
    ELSE DO;
        SELECT(DCATCH);
            WHEN ('0037', '0066', '0067', '0068', '0069',
                  '0123', '0256', '0306', '0309', '0385', '0413') MSM='01';
            WHEN ('0120', '0121', '0124')                         MSM='02';
            WHEN ('0089', '0335')                                 MSM='03';
            WHEN ('0103', '0356')                                 MSM='04';
            WHEN ('0101', '0105')                                 MSM='05';
            WHEN ('0297', '0316', '0436', '0654', '1990', '0073') MSM='06';
            WHEN ('0109', '0117', '0363', '0366')                 MSM='07';
            WHEN ('0032', '0033', '0252', '7200')                 MSM='08';
            WHEN ('0024', '0029')                                 MSM='09';
            WHEN ('0125', '0126', '0127', '0395', '7138')         MSM='10';
            WHEN ('0052', '0280', '0287')                         MSM='11';
            WHEN ('0204', '0006')                                 MSM='12';
            WHEN ('0005', '0203')                                 MSM='13';
            OTHERWISE MSM='   ';
        END;
    END;

RUN;

PROC PRINT DATA=SAMPLA02(OBS=50);
RUN;

PROC SORT DATA=SAMPLA02;
   BY DMIS_ID;
RUN;

PROC SORT DATA=TMA.TMA(KEEP=DMIS_ID FACILITY_SERVICE_CODE) OUT=TMA;    /*LLU 5/11/05*/
   BY DMIS_ID;
RUN;

DATA SERV.SERVAFF;
   MERGE SAMPLA02(IN=IN1)
         TMA(RENAME=(FACILITY_SERVICE_CODE=SERVAFF));
   BY DMIS_ID;

   /* JMA 5/22/2006 Created numeric version of servaff */

   LENGTH  XSERVAFF 3;

   IF SERVAFF='A' THEN XSERVAFF=1; *Army;
   IF SERVAFF='F' THEN XSERVAFF=2; *Air Force;
   IF SERVAFF='N' THEN XSERVAFF=3; *Navy;

   /***Coast Guard, Administrative, Support Contractor, USTF, Noncatchment,
    Other, Not available, Missing/unknown
     *** will collapsed to other per Eric Shone ***/

   IF SERVAFF IN ('C' 'J' 'M' 'T' 'S' 'O' 'X' ' ') THEN XSERVAFF=4; *Other;

   IF IN1;
RUN;


PROC PRINT DATA=SERV.SERVAFF(OBS=200);
RUN;

PROC CONTENTS DATA=SERV.SERVAFF; RUN;


 * check missing MSM;
proc freq DATA=SERV.SERVAFF;
TABLES  PCM*ENRID*DCATCH*DMIS_ID/LIST MISSPRINT;
RUN;
```

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**F.5.C   Q1FY2009\PROGRAMS\CONSTRUCT\MERGEQ.SAS - MERGE CONSTRUCTED VARIABLES ONTO DATA FILE-
          INCLUDES V3 VARIABLES.**

```
******************************************************************************
* PROGRAM:   MERGEQ.SAS
* WRITTEN:   1/28/00 BY KELLY WHITE
* MODIFIED:  3/1/00 BY NATALIE JUSTH
* MODIFIED:  11/16/00 BY JOAN JAMES
* MODIFIED:  1/30/01 BY NATALIE JUSTH
* MODIFIED:  6/6/01 BY NATALIE JUSTH FOR Q2 UPDATES
* MODIFIED:  8/20/01 BY NATALIE JUSTH FOR Q3 UPDATES
* MODIFIED: 12/13/01 BY NATALIE JUSTH FOR Q4 UPDATES
* MODIFIED: 2/11/02 By Daniele Beahm to delete H00077 variable and reassign format for
*           S00S01 variable
* MODIFIED: 4/11/02 By JACLYN WONG FOR Q1 UPDATES
* MODIFIED: 6/21/02 by JACLYN WONG FOR Q2 UPDATES
* MODIFIED: 7/1/2002 By Daniele Beahm to delete SF8 variables not used for Q2 2002
* MODIFIED: 10/16/2002 By Daniele Beahm to delete Q2 2002 Supplemental vars that were on the
*           Q3 2002 data file from NRC.
* MODIFIED: 01/02/2003 By Keith Rathbun: Added ONTIME variable to support the annual
*           version of the database (trickle indicator).  This ONTIME variable is
*           only applicable to the annual file and thus should be deleted for the
*           quarterly version of this program.
* MODIFIED: 3/24/02 by JACLYN WONG FOR Q1 2003 UPDATES.  Added HP_SMOKH, HP_CESS, and KPRSCPTN
* MODIFIED: 8/29/03 by NATALIE JUSTH FOR Q3 2003 UPDATES
* MODIFIED: 12/19/03 by NATALIE JUSTH FOR Q4 2003 UPDATES
* MODIFIED: 3/29/04 BY LUCY LU FOR Q1 2004 UPDATES
* MODIFIED: 6/10/04 BY LUCY LU FOR Q2 2004 UPDATES
* MODIFIED: 9/13/04 BY LUCY LU FOR Q3 2004 UPDATES
* MODIFIED: 11/10/04 BY LUC LU, DROP VARIABLE STIELIG.
* MODIFIED: 2/1/05 BY LUCY LU FOR Q4 2004 UPDATES
* MODIFIED: 2/17/2005 BY JACQUELINE AGUFA. Added code to get updated CACSMPL from
*           REPWT.sd2
* MODIFIED: 5/3/05 BY LUCY LU FOR Q1 2005 UPDATES.
* MODIFIED: 10/24/05 BY LUCY LU FOR Q3 2005 UPDATES.
* MODIFIED: 11/1/05 BY J AGUFA. Dropped E1-E19
* MODIFIED: 12/21/05 BY LUCY LU FOR Q4 2005
* MODIFIED: 03/29/06 BY LUCY LU FOR Q2 FY 2006
* MODIFIED: 07/07/06 BY LUCY LU FOR q3 FY 2006
* MODIFIED: 10/07/06 BY LUCY LU FOR q4 FY 2006
* MODIFIED: 1/2/07 BY J AGUFA FOR q1 FY 2007
* MODIFIED: 3/29/07 BY J AGUFA FOR q2 FY 2007
* MODIFIED: 7/05/07 BY J AGUFA FOR q3 FY 2007
* MODIFIED: 1/22/08 BY J AGUFA FOR q1 FY 2007
* MODIFIED: 10/1/08 BY M RUDACILLE FOR q4 FY 2008
*
* PURPOSE:   TO MERGE FINAL FILES TOGETHER AND REORDER BY VARIABLE TYPE
*            To reorder variables within the record use a
*             LENGTH statement before the SET statement.
*             Make sure that MPRID is the first variable in the
*             record followed by:
*                           1)  other sampling variables
*                           2)  DEERS variables
*                           3)  Post-stratification vars
*                           4)  questionnaire responses
*                           5)  DRC variables
*                           6)  recoded questionnaire responses
*                           3)  coding scheme flags
*                           8)  constructed variables
*                           9)  weights  (NOT AVAILABLE FOR PRELIMINARY DATA)
* INPUT:     ..\..\DATA\AFINAL\SELECTQ.sas7bdat
* INPUT:     ..\..\DATA\AFINAL\CONVARQ.sas7bdat
* INPUT:     ..\..\DATA\AFINAL\CONVARSF.sas7bdat
* OUTPUT:    ..\..\DATA\AFINAL\MERGEQ.sas7bdat
* INCLUDE:   SERVAFF.SAS
*            TO MERGE ON VARIABLE SERVAFF
******************************************************************************
*;
LIBNAME IN1     v9   '..\..\DATA\AFINAL';
LIBNAME OUT     V9   '..\..\DATA\AFINAL';
LIBNAME LIBRARY      '..\..\DATA\AFINAL\FMTLIB';

OPTIONS PS=78 LS=124 ERRORS=2 COMPRESS=YES ; *MPRINT;
```

```
%INCLUDE SERVAFF/SOURCE2;          *LLU 2/9/05;

PROC SORT DATA=IN1.SELECTQv4 OUT=SELECTQv4;
   BY MPRID;
RUN;

PROC SORT DATA=IN1.SELECTQv3 OUT=SELECTQv3;
   BY MPRID;
RUN;


PROC SORT DATA=IN1.CONVARQv4 OUT=CONVARQv4;
   BY MPRID;
RUN;

PROC SORT DATA=IN1.CONVARQv3 OUT=CONVARQv3;
   BY MPRID;
RUN;


PROC SORT DATA=IN1.SERVAFF OUT=SERVAFF;
   BY MPRID;
RUN;

PROC FREQ DATA=SERVAFF;
   TABLES SERVAFF;
RUN;

/***********************************************************************
 ****jma Jan 2009 Create MergeqV4
 **********************************************************************/

DATA MERGEQv4 (DROP =
H09001_O
H09002AO
H09002CO
H09002NO
H09002OO
H09002PO
H09002QO
H09002FO
H09002GO
H09002HO
H09002IO
H09002JO
H09002KO
H09002MO
H09002RO
H09002LO
H09003_O
H09004_O
H09005_O
H09006_O
H09007_O
H09008_O
H09009_O
H09010_O
H09011_O
H09012_O
H09013_O
H09014_O
H09015_O
H09016_O
H09017_O
H09018_O
H09019_O
H09020_O
H09021_O
H09022_O
H09023_O
H09024_O
H09025_O
H09026_O
```

```
H09027_O
H09028_O
H09029_O
H09030_O
H09031_O
S09B01_O
S09B02_O
S09B03_O
S09B04_O
H09032_O
H09033_O
H09034_O
H09035_O
H09036_O
H09037_O
H09038_O
H09039_O
H09040_O
H09041_O
H09042_O
H09043_O
H09044_O
H09045_O
H09046_O
H09047_O
H09048_O
H09049_O
H09050_O
H09051_O
H09052_O
H09053_O
H09054_O
H09055_O
S09D01_O
S09D02_O
S09D03_O
S09D04_O
H09056_O
H09057_O
H09058_O
H09059_O
H09060_O
H09061_O
H09062_O
H09063_O
H09064_O
H09065_O
H09066_O
H09067_O
H09068_O
H09069FO
H09069IO
H09070_O

H09069FN
H09069IN
H09070N

SREDA_O
H09071AO
H09071BO
H09071CO
H09071DO
H09071EO
SRRACEAO
SRRACEBO
SRRACECO
SRRACEDO
SRRACEEO
SRAGE_O
H09072_O
H09073_O
H09074_O
S09N11_O
```

```
    PRRECFLG

D_DMIS
DMIS
R_MTF
GROUP
GRP_GEO
group_geosmpl
);


    MERGE SELECTQv4(in=hcsdb rename=(flag_fin=dummy))
          CONVARQv4
          SERVAFF(DROP=PCM DCATCH);
    BY MPRID;
    if hcsdb;

/*MAKE FLAG_FIN IN Q3 CHARACTER*/
    FLAG_FIN=PUT(DUMMY,5.);                  /*LLU 2/9/05*/
    DROP DUMMY;


FORMAT
    SERVAFF  $SERVAFF.
    ENBGSMPL $ENBGS.
    CACSMPL  CAC.
    DBENCAT  $BENCAT.
    DMEDELG  $MEDELG.
    DSPONSVC $SPONSVC.
    FLAG_FIN $FINAL.
    FNSTATUS FNSTATS.
    MBRRELCD $MBRREL.
    MEDTYPE  $MEDTYP.
    MRTLSTAT $MSTATUS.
    PATCAT   $AGGBCAT.
    MISS_1   HAMISS.
    MISS_4   HAMISS.
    MISS_5   HAMISS.
    MISS_6   HAMISS.
    MISS_7   HAMISS.
    MISS_8   HAMISS.
    MISS_9   HAMISS.
    MISS_TOT HAMISS.
    PCM      $PCM.
    PNLCATCD $PNLCAT.
    PNSEXCD  $SEXCD.
    RACEETHN $RACECD.
    SEXSMPL  SEX.
    SVCSMPL  SVCSMPL.
    XSEXA    HASEX.
    SERVAREA $SRVAREA.
    MPCSMPL  MPCSMPL.
    D_HEALTH $DHEALTH.
    TNEXREG  $TNEXREG.
    D_FAC    $DFAC.
    MSM      $MSM.
    XBMICAT  XBMICAT.
    ENRID    $ENRID.
    WEB       WEB.
    XOCONUS  XOCONUS.
    ACV      $ACV2_.

    XSERVAFF XSERVAFF.

    PNTYPCD  $PNTYPCD.

    MPRID    $8.          /*Remove extra format space ($43) provided by NRC*/
;

LABEL
    ENBGSMPL = "Enrollment by beneficiary category"
    SERVAFF  = "Service Affiliation"
    MPCSMPL  = "MPCSMPL - Military Personnel Category"
    FLAG_FIN = "Final Despisition"
```

```
      CACSMPL  = "Catchment Area"
      WEB      = "Web survey indicator"
      D_PAR    = "DMIS Parent ID"
      D_Health = "Health Service Region"
      TNEXREG  = "TNEX Region"
      MSM      = 'Multiple Service Market Areas'
      MIQCNTL  = 'Synovate ID'
      XSERVAFF = "Service Affiliation"
      SERVAREA = 'Service Area'
      ;

RUN;

/************************************************************************
 ****jma Jan 2009 Create MergeqV3
 ************************************************************************/

DATA MERGEQv3 (DROP =
H09001A_O
H09002AAO
H09002CAO
H09002FAO
H09002GAO
H09002HAO
H09002IAO
H09002JAO
H09002KAO
H09002LAO
H09002MAO
H09002NAO
H09002OAO
H09002PAO
H09002QAO
H09002RAO
H09003A_O
H09004A_O
H09005A_O
H09006A_O
H09007A_O
H09008A_O
H09009A_O
H09010A_O
H09011A_O
H09012A_O
H09013A_O
H09014A_O
H09015A_O
H09016A_O
H09017A_O
H09018A_O
H09019A_O
H09020A_O
H09021A_O
H09022A_O
H09023A_O
H09024A_O
H09025A_O
H09026A_O
H09027A_O
H09028A_O
H09029A_O
H09030A_O
H09031A_O
H09032A_O
H09033A_O
H09034A_O
H09035A_O
H09036A_O
H09037A_O
H09038A_O
H09039A_O
H09040A_O
H09041A_O
H09042A_O
```

```
H09043A_O
H09044A_O
H09045A_O
H09046A_O
H09047A_O
H09048A_O
H09049A_O
H09050A_O
H09051A_O
H09052A_O
H09053A_O
H09054A_O
H09055A_O
H09056A_O
H09057A_O
H09058A_O
H09059A_O
H09060A_O
H09061A_O
H09063A_O
H09064A_O
H09065A_O
H09066A_O
H09067A_O
H09068FAO
H09068IAO
H09069A_O

H09068FNA
H09068INA
H09069NA

H09070AAO
H09070BAO
H09070CAO
H09070DAO
H09070EAO


SREDAA_O
SRRACEAAO
SRRACEBAO
SRRACECAO
SRRACEDAO
SRRACEEAO
SRAGEA_O

S09B01A_O
S09B02A_O
S09B03A_O
S09B04A_O
S09D01A_O
S09D02A_O
S09D03A_O
S09D04A_O
S09N11A_O


PRRECFLG

D_DMIS
DMIS
R_MTF
GROUP
GRP_GEO
group_geosmpl
);


    MERGE SELECTQv3(in=hcsdb rename=(flag_fin=dummy))
          CONVARQv3
          SERVAFF(DROP=PCM DCATCH);
    BY MPRID;
    if hcsdb;
```

```
/*MAKE FLAG_FIN IN Q3 CHARACTER*/
   FLAG_FIN=PUT(DUMMY,5.);              /*LLU 2/9/05*/
   DROP DUMMY;


FORMAT
   SERVAFF   $SERVAFF.
   ENBGSMPL  $ENBGS.
   CACSMPL   CAC.
   DBENCAT   $BENCAT.
   DMEDELG   $MEDELG.
   DSPONSVC  $SPONSVC.
   FLAG_FIN  $FINAL.
   FNSTATUS  FNSTATS.
   MBRRELCD  $MBRREL.
   MEDTYPE   $MEDTYP.
   MRTLSTAT  $MSTATUS.
   PATCAT    $AGGBCAT.
   MISS_1    HAMISS.
   MISS_4    HAMISS.
   MISS_5    HAMISS.
   MISS_6    HAMISS.
   MISS_7    HAMISS.
   MISS_8    HAMISS.
   MISS_9    HAMISS.
   MISS_TOT  HAMISS.
   PCM       $PCM.
   PNLCATCD  $PNLCAT.
   PNSEXCD   $SEXCD.
   RACEETHN  $RACECD.
   SEXSMPL   SEX.
   SVCSMPL   SVCSMPL.
   XSEXA     HASEX.
   SERVAREA  $SRVAREA.
   MPCSMPL   MPCSMPL.
   D_HEALTH  $DHEALTH.
   TNEXREG   $TNEXREG.
   D_FAC     $DFAC.
   MSM       $MSM.
   XBMICAT   XBMICAT.
   ENRID     $ENRID.
   WEB       WEB.
   XOCONUS   XOCONUS.
   ACV       $ACV2_.

   XSERVAFF  XSERVAFF.

   PNTYPCD   $PNTYPCD.

   MPRID     $8.         /*Remove extra format space ($43) provided by NRC*/
;

LABEL
   ENBGSMPL = "Enrollment by beneficiary category"
   SERVAFF  = "Service Affiliation"
   MPCSMPL  = "MPCSMPL - Military Personnel Category"
   FLAG_FIN = "Final Despisition"
   CACSMPL  = "Catchment Area"
   WEB      = "Web survey indicator"
   D_PAR    = "DMIS Parent ID"
   D_Health = "Health Service Region"
   TNEXREG  = "TNEX Region"
   MSM      = 'Multiple Service Market Areas'
   MIQCNTL  = 'Synovate ID'
   XSERVAFF = "Service Affiliation"
   SERVAREA = 'Service Area'
   VERSION  = "Indicator of v3 or v4 questionnaire"
   ;

RUN;
```

```
DATA MERGEQ(DROP =
        H09001A
        H09002AA
        H09002CA
        H09002NA
        H09002OA
        H09002PA
        H09002QA
        H09002FA
        H09002GA
        H09002HA
        H09002IA
        H09002JA
        H09002KA
        H09002MA
        H09002RA
        H09002LA
        H09006A
        H09007A
        H09038A
        H09049A
        H09050A
        H09051A
        H09052A
        H09053A
        H09055A
        H09056A
        H09057A
        H09058A
        H09059A
        H09060A
        H09061A
        H09063A
        H09064A
        H09065A
        H09066A
        H09067A
        H09068FA
        H09068IA
        H09069A
        SREDAA
        H09070A
        H09070AA
        H09070BA
        H09070CA
        H09070DA
        H09070EA
        SRRACEAA
        SRRACEBA
        SRRACECA
        SRRACEDA
        SRRACEEA
        SRAGEA
        H09003A
        H09004A
        H09005A
        S09B01A
        S09B02A
        S09B03A
        S09B04A
        S09D01A
        S09D02A
        S09D03A
        S09D04A
        S09N11A
        N1_V3
        N10A1_V3
        N16_V3
        N16A1_V3
        N17A_V3
        N17B_V3
        N18_V3
        N19_V3
        N20_V3); /* 1/21/09 MER Drop V3 variables that apply to both V3 and V4 */
```

```
SET MERGEQv3(RENAME=(
   N1    = N1_V3
   N2    = N2_V3
   N3    = N3_V3
   N4    = N4_V3
   N5    = N5_V3
   N6    = N6_V3
   N7    = N7_V3
   N8    = N8_V3
   N9    = N9_V3
   N10   = N10_V3
   N10A1 = N10A1_V3
   N11   = N11_V3
   N12   = N12_V3
   N13   = N13_V3
   N14   = N14_V3
   N15   = N15_V3
   N16   = N16_V3
   N16A1 = N16A1_V3
   N17A  = N17A_V3
   N17B  = N17B_V3
   N18   = N18_V3
   N19   = N19_V3
   N20   = N20_V3
     )
    )
    MERGEQv4;

/*** jma Jan 2009.  Variables that are exactly the same in both questionnaires ****/
IF VERSION=3 THEN DO;
   H09001  = H09001A;
   H09002A =H09002AA;
   H09002C =H09002CA;
   H09002N =H09002NA;
   H09002O =H09002OA;
   H09002P =H09002PA;
   H09002Q =H09002QA;
   H09002F =H09002FA;
   H09002G =H09002GA;
   H09002H =H09002HA;
   H09002I =H09002IA;
   H09002J =H09002JA;
   H09002K =H09002KA;
   H09002M =H09002MA;
   H09002R =H09002RA;
   H09002L =H09002LA;
   H09003  =H09006A;
   H09004  =H09007A;
   H09005  =H09038A;

   H09048  =H09049A;
   H09049  =H09050A;
   H09050  =H09051A;
   H09051  =H09052A;
   H09052  =H09053A;
   H09053  =H09055A;
   H09054  =H09056A;
   H09055  =H09057A;
   H09056  =H09058A;
   H09057  =H09059A;
   H09058  =H09060A;
   H09059  =H09061A;
   H09060  =H09063A;
   H09061  =H09064A;
   H09062  =H09065A;
   H09063  =H09066A;
   H09064  =H09067A;

   H09069F =H09068FA;
   H09069I =H09068IA;
   H09070  =H09069A ;
   SREDA   =SREDAA  ;
   H09071  = H09070A ;
   H09071A = H09070AA;
```

```
            H09071B = H09070BA;
            H09071C = H09070CA;
            H09071D = H09070DA;
            H09071E = H09070EA;
            SRRACEA = SRRACEAA;
            SRRACEB = SRRACEBA;
            SRRACEC = SRRACECA;
            SRRACED = SRRACEDA;
            SRRACEE = SRRACEEA;
            SRAGE   = SRAGEA ;
            H09072  = H09003A;
            H09073  = H09004A;
            H09074  = H09005A;
            S09B01  = S09B01A;
            S09B02  = S09B02A;
            S09B03  = S09B03A;
            S09B04  = S09B04A;
            S09D01  = S09D01A;
            S09D02  = S09D02A;
            S09D03  = S09D03A;
            S09D04  = S09D04A;
            S09N11  = S09N11A;


            N1   = N1_V3;
            N10A1 = N10A1_V3;
            N18   = N16_V3;
            N18A1 = N16A1_V3;
            N19A  = N17A_V3;
            N19B  = N17B_V3;
            N20   = N18_V3;
            N21   = N19_V3;
            N24   = N20_V3;
        END;

    RUN;

    DATA OUT.MERGEQ;

        LENGTH

            MPRID       $ 8          /* ID                */
            SVCSMPL       8          /* sampling variable */
            SEXSMPL       8          /* sampling variable */
            STRATUM     $ 7          /* sampling variable */
            CACSMPL       8          /* sampling variable */
            ENBGSMPL    $ 2          /* sampling variable */
            MPCSMPL       8          /* sampling variable */
            NHFF          8          /* sampling variable */
            SERVAREA    $ 2          /* sampling variable */
            QUARTER     $ 8          /* sampling variable */
            PRN           8          /* sampling variable */
            DCATCH      $ 4          /* sampling variable */
            ENRID       $ 4          /* sampling variable */
            DMIS_ID     $ 9          /* sampling variable */
            MSM         $ 2          /* sampling variable */
            D_FAC       $ 9          /* sampling variable */
            D_PAR       $ 4          /* sampling variable */
            D_HEALTH    $ 2          /* sampling variable */
            TNEXREG     $ 1          /* sampling variable */
            SERVAFF     $ 1          /* sampling variable */
            BWT           8          /* sampling variable */


            MRTLSTAT    $ 1          /* DEERS variable    */
            RACEETHN    $ 1          /* DEERS variable    */
            PNSEXCD     $ 1          /* DEERS variable    */
            DAGEQY      $ 3          /* DEERS variable    */
            FIELDAGE    $ 3          /* DEERS variable    */
            PCM         $ 3          /* DEERS variable    */
            ACV         $ 1          /* DEERS variable    */
            DBENCAT     $ 3          /* DEERS variable    */
            DMEDELG     $ 1          /* DEERS variable    */
            DSPONSVC    $ 1          /* DEERS variable    */
            MBRRELCD    $ 1          /* DEERS variable    */
```

```
        MEDTYPE      $ 1            /* DEERS variable    */
        PATCAT       $ 7            /* DEERS variable    */
        PNTYPCD      $ 1            /* DEERS variable    */
        PNLCATCD     $ 1            /* DEERS variable    */


/***** mer Jan 2009 Variables applicable to V3 and V4 *******************************/
        H09001         4            /* questionnaire     */
        H09002A        4            /* questionnaire     */
        H09002C        4            /* questionnaire     */
        H09002N        4            /* questionnaire     */
        H09002O        4            /* questionnaire     */
        H09002P        4            /* questionnaire     */
        H09002Q        4            /* questionnaire     */
        H09002F        4            /* questionnaire     */
        H09002G        4            /* questionnaire     */
        H09002H        4            /* questionnaire     */
        H09002I        4            /* questionnaire     */
        H09002J        4            /* questionnaire     */
        H09002K        4            /* questionnaire     */
        H09002M        4            /* questionnaire     */
        H09002R        4            /* questionnaire     */
        H09002L        4            /* questionnaire     */
        H09003         4            /* questionnaire     */
        H09004         4            /* questionnaire     */
        H09005         4            /* questionnaire     */
        H09048         4            /* questionnaire     */
        H09049         4            /* questionnaire     */
        H09050         4            /* questionnaire     */
        H09051         4            /* questionnaire     */
        H09052         4            /* questionnaire     */
        H09053         4            /* questionnaire     */
        H09054         4            /* questionnaire     */
        H09055         4            /* questionnaire     */
        H09056         4            /* questionnaire     */
        H09057         4            /* questionnaire     */
        H09058         4            /* questionnaire     */
        H09059         4            /* questionnaire     */
        H09060         4            /* questionnaire     */
        H09061         4            /* questionnaire     */
        H09062         4            /* questionnaire     */
        H09063         4            /* questionnaire     */
        H09064         4            /* questionnaire     */
        H09069F        4            /* questionnaire     */
        H09069I        4            /* questionnaire     */
        H09070         4            /* questionnaire     */
        SREDA          4            /* questionnaire     */
        H09071         4            /* questionnaire     */
        H09071A        4            /* questionnaire     */
        H09071B        4            /* questionnaire     */
        H09071C        4            /* questionnaire     */
        H09071D        4            /* questionnaire     */
        H09071E        4            /* questionnaire     */
        SRRACEA        4            /* questionnaire     */
        SRRACEB        4            /* questionnaire     */
        SRRACEC        4            /* questionnaire     */
        SRRACED        4            /* questionnaire     */
        SRRACEE        4            /* questionnaire     */
        SRAGE          4            /* questionnaire     */
        H09072         4            /* questionnaire     */
        H09073         4            /* questionnaire     */
        H09074         4            /* questionnaire     */


/***** jma Jan 2009 V3 variables ***********************************************/
        H09008A        4            /* questionnaire     */
        H09009A        4            /* questionnaire     */
        H09010A        4            /* questionnaire     */
        H09011A        4            /* questionnaire     */
        H09012A        4            /* questionnaire     */
        H09013A        4            /* questionnaire     */
        H09014A        4            /* questionnaire     */
        H09015A        4            /* questionnaire     */
        H09016A        4            /* questionnaire     */
        H09017A        4            /* questionnaire     */
        H09018A        4            /* questionnaire     */
```

```
        H09019A          4              /* questionnaire     */
        H09020A          4              /* questionnaire     */
        H09021A          4              /* questionnaire     */
        H09022A          4              /* questionnaire     */
        H09023A          4              /* questionnaire     */
        H09024A          4              /* questionnaire     */
        H09025A          4              /* questionnaire     */
        H09026A          4              /* questionnaire     */
        H09027A          4              /* questionnaire     */
        H09028A          4              /* questionnaire     */
        H09029A          4              /* questionnaire     */
        H09030A          4              /* questionnaire     */
        H09031A          4              /* questionnaire     */
        H09032A          4              /* questionnaire     */
        H09033A          4              /* questionnaire     */
        H09034A          4              /* questionnaire     */
        H09035A          4              /* questionnaire     */
        H09036A          4              /* questionnaire     */
        H09037A          4              /* questionnaire     */
        H09039A          4              /* questionnaire     */
        H09040A          4              /* questionnaire     */
        H09041A          4              /* questionnaire     */
        H09042A          4              /* questionnaire     */
        H09043A          4              /* questionnaire     */
        H09044A          4              /* questionnaire     */
        H09045A          4              /* questionnaire     */
        H09046A          4              /* questionnaire     */
        H09047A          4              /* questionnaire     */
        H09048A          4              /* questionnaire     */
        H09054A          4              /* questionnaire     */

/***** jma Jan 2009 V4 variables ***************************************************/
        H09006           4              /* questionnaire     */
        H09007           4              /* questionnaire     */
        H09008           4              /* questionnaire     */
        H09009           4              /* questionnaire     */
        H09010           4              /* questionnaire     */
        H09011           4              /* questionnaire     */
        H09012           4              /* questionnaire     */
        H09013           4              /* questionnaire     */
        H09014           4              /* questionnaire     */
        H09015           4              /* questionnaire     */
        H09016           4              /* questionnaire     */
        H09017           4              /* questionnaire     */
        H09018           4              /* questionnaire     */
        H09019           4              /* questionnaire     */
        H09020           4              /* questionnaire     */
        H09021           4              /* questionnaire     */
        H09022           4              /* questionnaire     */
        H09023           4              /* questionnaire     */
        H09024           4              /* questionnaire     */
        H09025           4              /* questionnaire     */
        H09026           4              /* questionnaire     */
        H09027           4              /* questionnaire     */
        H09028           4              /* questionnaire     */
        H09029           4              /* questionnaire     */
        H09030           4              /* questionnaire     */
        H09031           4              /* questionnaire     */
        H09032           4              /* questionnaire     */
        H09033           4              /* questionnaire     */
        H09034           4              /* questionnaire     */
        H09035           4              /* questionnaire     */
        H09036           4              /* questionnaire     */
        H09037           4              /* questionnaire     */
        H09038           4              /* questionnaire     */
        H09039           4              /* questionnaire     */
        H09040           4              /* questionnaire     */
        H09041           4              /* questionnaire     */
        H09042           4              /* questionnaire     */
        H09043           4              /* questionnaire     */
        H09044           4              /* questionnaire     */
        H09045           4              /* questionnaire     */
        H09046           4              /* questionnaire     */
        H09047           4              /* questionnaire     */
```

```
        H09065          4           /* questionnaire     */
        H09066          4           /* questionnaire     */
        H09067          4           /* questionnaire     */
        H09068          4           /* questionnaire     */

/****jma Jan 2009 Supplemental variables ****************************************/
        S09B01          4           /* supplemental      */
        S09B02          4           /* supplemental      */
        S09B03          4           /* supplemental      */
        S09B04          4           /* supplemental      */
        S09D01          4           /* supplemental      */
        S09D02          4           /* supplemental      */
        S09D03          4           /* supplemental      */
        S09D04          4           /* supplemental      */
        S09N11          4           /* supplemental      */

        ONTIME       $ 3            /* Survey fielding variable */
        FLAG_FIN     $ 5            /* Survey fielding variable */
        DUPFLAG      $ 3            /* Survey fielding variable */
        FNSTATUS       8            /* Survey fielding variable */
        KEYCOUNT       8            /* Survey fielding variable */
        WEB            8            /* Survey fielding variable */
        VERSION        8            /* Survey fielding variable */
        MIQCNTL      $ 12           /* Survey fielding variable */

/****mer Jan 2009 CS flag variables applicable to V3 and V4 *********************/
        N1             8           /* CS flag variable    */
        N10A1          8           /* CS flag variable    */
        N18            8           /* CS flag variable    */
        N18A1          8           /* CS flag variable    */
        N19A           8           /* CS flag variable    */
        N19B           8           /* CS flag variable    */
        N20            8           /* CS flag variable    */
        N21            8           /* CS flag variable    */
        N24            8           /* CS flag variable    */

/****jma Jan 2009 V3 CS flag variables variables ********************************/
        N2_V3          8           /* CS flag variable    */
        N3_V3          8           /* CS flag variable    */
        N4_V3          8           /* CS flag variable    */
        N5_V3          8           /* CS flag variable    */
        N6_V3          8           /* CS flag variable    */
        N7_V3          8           /* CS flag variable    */
        N8_V3          8           /* CS flag variable    */
        N9_V3          8           /* CS flag variable    */
        N10_V3         8           /* CS flag variable    */
        N11_V3         8           /* CS flag variable    */
        N12_V3         8           /* CS flag variable    */
        N13_V3         8           /* CS flag variable    */
        N14_V3         8           /* CS flag variable    */
        N15_V3         8           /* CS flag variable    */

/****jma Jan 2009 V4 CS flag variables variables ********************************/
        N2             8           /* CS flag variable    */
        N3             8           /* CS flag variable    */
        N4             8           /* CS flag variable    */
        N5             8           /* CS flag variable    */
        N6             8           /* CS flag variable    */
        N7             8           /* CS flag variable    */
        N8             8           /* CS flag variable    */
        N9             8           /* CS flag variable    */
        N10            8           /* CS flag variable    */
        N11            8           /* CS flag variable    */
        N12            8           /* CS flag variable    */
        N13            8           /* CS flag variable    */
        N14            8           /* CS flag variable    */
        N15            8           /* CS flag variable    */
        N16            8           /* CS flag variable    */
        N17            8           /* CS flag variable    */
        N22            8           /* CS flag variable    */
        N23            8           /* CS flag variable    */


        MISS_1         8           /* CS Count            */
```

```
        MISS_4          8               /* CS Count             */
        MISS_5          8               /* CS Count             */
        MISS_6          8               /* CS Count             */
        MISS_7          8               /* CS Count             */
        MISS_8          8               /* CS Count             */
        MISS_9          8               /* CS Count             */
        MISS_TOT        8               /* CS Count             */

        XENRLLMT        8               /* constructed       */
        XENR_PCM        8               /* constructed       */
        XINS_COV        8               /* constructed       */
        XBENCAT         8               /* constructed       */
        XENR_RSV        8               /* constructed       */
        XINS_RSV        8               /* constructed       */
        XREGION         3               /* constructed       */
        XTNEXREG        3               /* constructed       */
        USA             3               /* constructed       */
        XOCONUS         3               /* constructed       */
        OUTCATCH        8               /* constructed       */
        XSEXA           8               /* constructed       */
        XBMI            8               /* constructed       */
        XBMICAT         3               /* constructed       */
        XBNFGRP         8               /* constructed       */
        XSERVAFF        3               /* constructed       */
        KMILOFFC        8               /* constructed       */
        KCIVOFFC        8               /* constructed       */
        KBGPRB1         8               /* constructed       */
        KBGPRB2         8               /* constructed       */
        KMILOPQY        8               /* constructed       */
        KCIVOPQY        8               /* constructed       */
        KCIVINS         8               /* constructed       */
        HP_PRNTL        8               /* constructed       */
        HP_MAMOG        8               /* constructed       */
        HP_MAM50        8               /* constructed       */
        HP_PAP          8               /* constructed       */
        HP_BP           8               /* constructed       */
        HP_FLU          8               /* constructed       */
        HP_OBESE        8               /* constructed       */
        HP_SMOKE        8               /* constructed       */
        HP_SMOKH        8               /* constructed       */
        HP_SMKH2        8               /* constructed       */
        HP_CESH         8               /* constructed       */
        HP_CESH2        8               /* constructed       */
        ;

    SET MERGEQ;

    RUN;

PROC CONTENTS DATA=OUT.MERGEQ POSITION;
    title  "HCSDB for Q1 FY 2009, ordered by variable type";
    RUN;

PROC FREQ DATA=OUT.MERGEQ;
TABLE PCM ACV CACSMPL/MISSPRINT;
RUN;
```

F.6   Q4FY2009\PROGRAMS\WEIGHTING\NEWWEIGHTS\SMPLA1A2.SAS - CONSTRUCT THE CATEGORICAL VARIABLES TO BE USED IN THE ANSWERTREE AND THE MODELING - RUN QUARTERLY.

```
******************************************************************************
*** Program: L:\Q4FY2009\Programs\Weighting\NewWeights\smplA1A2.sas
*** Task   : 6407-975
*** Purpose: Construct the variables to be used in the model
***
*** Inputs:  extract.sas7bdat  : 2009 Q4FY Extract file
***          selectq.sas7bdat  : Q4FY2009 Survey file with CAHPS4.0 questionnaires
***          sampla03_2,
***          sampla02 (instead of xwalk)
***
*** Outputs: smplA1A2.sas7bdat
***          smplA1.sas7bdat: Dataset to be used to calculate the unknown eligibility factor A1
***          smplA2.sas7bdat: Dataset to be used to calculate the nonresponse adjustment A2
***          conusA1.sas7bdat, oconusA1.sas7bdat, conusA2.sas7bdat, oconusA2.sas7bdat
***
*** Note:    1)Modified for q1fy2007 weighting on 12/18/2006:
***             a) Two more variables are added in CHAID tree analysis to capture the new sample
design in q1fy2007
***             b) Uncollapse PCM to differentiate CIV and MTF.
***          2)Haixia Xu 03/28/2007 for q3fy2007 weighting
***          3)From Q1fy2009, email notification was sent to all Active duty whose email address
is available
***             Looks like the variable name in Answer Tree has to be no longer than 8.
***          4)Also from q1fy2009, define patc_grp based on patcat and Has_email, and it has 4
categories instead of 3.
*** Written: Haixia Xu 12/18/2006 for q1fy2007 weighting
******************************************************************************;

options ls=132 ps=79 nocenter formdlim='~' obs=max;

%let quarter=Q4FY2009;

libname inr v8      "K:\&quarter.";                    /* extract.sa7bdat, xwalk.sas7bdat, deers001-
004.sas7bdat */
libname in  v8      "L:\&quarter.\Data\afinal"; /* selectq.sas7bdat */
libname out v8      "L:\&quarter.\Data\afinal"; /*smpla1a1, smpla1, smpla2, conusa1, conusa2,
oconusa1, oconusa2*/
LIBNAME library v9 "L:\&quarter.\DATA\AFINAL\FMTLIB";

title1 'Program: smplA1A2.SAS';
title2 'Purpose: Construct the variables';

******************************************************************************
Put the data together;
******************************************************************************;
data selectq;
   set in.selectq(keep=BWT COM_GEO D_HEALTH D_FAC dageqy ENBGSMPL FNSTATUS MPCSMPL MPRID
                  PATCAT PCM PNLCATCD PNSEXCD SERVAFF SEXSMPL STRATUM SVCSMPL WEB TNEXREG group
);
run;


* Usually we use commented part below (see Q1-Q3 Fy2009 for example);
* For Q4FY2009, we slightly modified the coding to adjust the change in MPRID due to accidently
re-run.
* For Q1Fy2010, uncomment and delete the Q4fy09 added part and use the usual way;

******************************************************************************
Get the has-email variable from sampla07_2 data
Get the variable PTNT_ID from sampla02 data (Q4Fy2009) (usually from xwalk)
Get the variable PGCD from extract data
******************************************************************************;
/*
proc sort data=selectq; by mprid;run;
proc sort data=inr.sampla03_2(keep=mprid has_email) out=sampla07_2; by mprid; run;
proc sort data=inr.xwalk(keep= ptnt_id mprid) out=xwalk; by mprid; run;
proc sort data=inr.extract(keep=mprid pgcd) out=extract; by mprid; run;

data selectq;
   merge selectq(in=a) sampla07_2(in=b) xwalk(in=c) extract(in=d);
```

```
   by mprid;
   if a and b and c and d;
run;
*/


***************************
*Newly Added for Q4Fy2009
***********************;
proc sort data=selectq; by mprid; run;
proc sort data=inr.sampla03_2(keep= mprid has_email)    out=sampla07_2; by mprid; run;
proc sort data=inr.sampla02  (keep= ptnt_id mprid)      out=sampla02;   by mprid; run;

data selectq;
   merge selectq(in=a) sampla07_2(in=b) sampla02(in=c);
   by mprid;
   if a and b and c;
run;

proc sort data=inr.extract(keep=ptnt_id pgcd)  out=extract;    by ptnt_id; run;
proc sort data=selectq                                                     out=selectq;     by
ptnt_id; run;

data selectq;
   merge selectq(in=a) extract(in=b);
   by ptnt_id;
   if a and b;
run;
*Newly Added for Q4Fy2009 -----> End;


*******************************************************************************
Merge the selectq with DEERS to get the address variable c_addr1
*******************************************************************************;
%macro dodeers(part=);
data deers00&part.;
set inr.deers00&part.(keep=ptnt_id c_addr1);
if c_addr1=' ' then CHCSAddr=0;
if c_addr1~=' ' then CHCSAddr=1;
run;

proc sort data=selectq; by ptnt_id; run;
proc sort data=deers00&part.; by ptnt_id; run;

data selectq;
merge selectq (in=A) deers00&part.;
by ptnt_id;
if A=1;
run;
%mend dodeers;

%dodeers(part=1);
%dodeers(part=2);
%dodeers(part=3);
%dodeers(part=4);

*******************************************************************************
Construct the new variables
*******************************************************************************;

data smpl;
set selectq;

***age***;
age=input(dageqy, 3.);

*Define the age group with 5 categories, which will be used in CHAID;
length AGE_grp5 $1;
if age <= 24 then AGE_grp5 = '1';
else if 24 < age <= 34 then AGE_grp5 = '2';
else if 34 < age <= 44 then AGE_grp5 = '3';
else if 44 < age <= 64 then AGE_grp5 = '4';
else if age > 64 then AGE_grp5 = '5';
if age=. then AGE_grp5='5';
```

```
***PATCAT***;
***Define PATCAT this way so it won't be associated with the age ***;
length PATC_grp $15;
if PATCAT ='UNKNOWN' then do;
  if ENBGSMPL in ('01') then PATC_grp='ACTDTY';
  else if ENBGSMPL in ('02', '03', '04') then PATC_grp='DEPACT';
  else if ENBGSMPL in ('05', '06', '07', '10') then PATC_grp='NADD';
end;
else if PATCAT in ('NADD<65','NADD65+') then PATC_grp = 'NADD';
else PATC_grp = PATCAT;

if PATC_grp ='ACTDTY' and Has_Email='YES' then PATC_grp='ACTDTY_EMAIL';
else if PATC_grp ='ACTDTY' and Has_Email='NO' then PATC_grp='ACTDTY_NOEMAIL';


***PCM***;
length PCM_grp $3;
if PCM =' ' then PCM_grp='NON';
else if PCM in ('CIV', 'MTF') then PCM_grp = PCM;


***PNLCATCD***;
length PNLC_grp $8;
if PNLCATCD in ('N','V') then PNLC_grp='Grd/Resv';
else PNLC_grp= 'Other';

***RANKPAY***;
length RankPay $3;
if MPCSMPL=1 then do;
  if PGCD in (' ', '00', '99','WW') then RankPay = 'E01';
  else  RankPay = 'E'||PGCD;
  end;
else if MPCSMPL=2 then do;
  if PGCD in (' ', '00', '99' ) then RankPay = 'O01';
  else  RankPay = 'O'||PGCD;
  end;
else if MPCSMPL=3 then do;
  if PGCD in (' ', '00', '99') then RankPay = 'W01';
  else  RankPay = 'W'||PGCD;
  end;

length RANK_grp $15;
if RankPay in ('E01', 'E02', 'E03', 'E04') then RANK_grp = 'E1234';
else if RankPay in ('E05', 'E06', 'E07', 'E08', 'E09', 'E10', 'E11','E12','E13','E14','E15')
then RANK_grp = 'E56789101112';
else if Rankpay in ('W01', 'W02', 'W03', 'O01', 'O02', 'O03') then RANK_grp = 'W123O123';
else if RankPay in ('W04', 'W05', 'O04', 'O05', 'O06', 'O07', 'O08', 'O09', 'O10') then RANK_grp
= 'W45O45678910';

***sex***;
*Put the missing sex with male;
length SEX_grp $1;
if SEXSMPL in (1, 3) then SEX_grp ='1';
else if SEXSMPL=2 then SEX_grp='2';

***service***;
length SVC_grp $16;
if SVCSMPL = 1 then SVC_grp='Army';
else if SVCSMPL in (2,3,5,6) then SVC_grp='N/M/C/O/U';
else if SVCSMPL = 4 then SVC_grp='Air Force';


***facility TNEX region***;
length TNEX_grp $1;
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';
```

```
***CONUS region***;
length conus $1;
if TNEX_grp ='O' then conus='0';
else if TNEX_grp in ('N', 'S', 'W') then conus='1';


***Catchment areaindicator***;
length in_catch $1;
if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR"  then in_catch='0';
else in_catch ='1';


/*Define two variables to identify the TRICARE Reserve Select and TRICARE Plus*/
if group='4' then TRICPLUS=1;
else TRICPLUS=2;


if group='0' then TRS=1;
else TRS=2;


label in_catch='In-catchment area indicator'
      TRICPLUS='TRICARE PLUS indicator'
       TRS='TRICARE Reserve Select indicator';
run;



title3 'Checking the coding above';
proc freq data=smpl;
tables CHCSAddr has_email AGE_grp5  AGE_grp5*AGE*dageqy
        PATC_grp PATC_grp*PATCAT*ENBGSMPL*Has_Email
        PCM_grp  PCM_grp*PCM
        PNLC_grp PNLC_grp*PNLCATCD
        RANKPAY*MPCSMPL*PGCD
        RANK_grp RANK_grp*RANKPAY
        SEX_grp  SEX_grp*SEXSMPL*PNSEXCD
         SVC_grp  SVC_grp*SVCSMPL
        TNEX_grp TNEX_grp*d_health
        CONUS CONUS*TNEX_grp
        in_catch in_catch*d_fac
        TRICPLUS*group
        TRS*group
         com_geo*TNEX_grp
/missing list;
run;

******************************************************************************
Output the data sets
*******************************************************************************;
data OUT.smplA1A2 OUT.smplA1 OUT.smplA2 OUT.conusA1 OUT.oconusA1 OUT.conusA2 OUT.oconusA2;
set smpl(drop=DAGEQY PNSEXCD MPCSMPL PGCD );
Rename has_email=HasEmail;
if fnstatus in (11, 12, 20, 31, 32, 41, 42) then output OUT.smplA1A2;

if fnstatus in (11, 12, 20, 31, 41, 42) then do;
  if fnstatus in (11, 12, 20, 31) then eligkwn=1; else eligkwn=0;
  label eligkwn = 'Eligibility known indicator';
  output OUT.smplA1;

  if conus='1' then output OUT.conusA1;
  else if conus='0' then output OUT.oconusA1;
end;

if fnstatus in (11, 12, 20) then do;
  if fnstatus = 11 then complete = 1; else complete =0;
  label complete = 'Eligible respondent/complete indicator';
  output OUT.smplA2;

  if conus='1' then output OUT.conusA2;
  else if conus='0' then output OUT.oconusA2;
end;

run;

options compress=no;
title3 'Freq of conus*fnstatus for 50,000 beneficiaries';
proc freq data=OUT.smplA1A2;
```

```
tables conus*fnstatus / missing list;
run;

title3 'Freq of fnstatus*eligkwn for 50,000 benes except fnstatus=32';
proc freq data=OUT.smplA1;
tables conus*fnstatus*eligkwn/ missing list;
run;

title3 'Freq of fnstatus*complete for fnstatus=11,12,20';
proc freq data=OUT.smplA2;
tables conus*fnstatus*complete/ missing list;
run;

****************** The End ********************;
```

**F.7   Q4FY2009\PROGRAMS\WEIGHTING\NEWWEIGHTS\LOGMDA1.SAS - DO THE 1ST STAGE UNKNOWN
         ELIGIBILITY ADJUSTMENT MODELING - INTERACTIONS IN THE MODEL ARE DETERMINED BASED ON THE
         TREES0 - RUN QUARTERLY.**

```
dm 'clear output;clear log';
***********************************************************************************************
***
*** Program: L:\Q4FY2009\Programs\Weighting\NewWeights\logmdA1.sas  (6663-300)
*** Purpose: Use the SUDAAN model to predict the response propensity
***          score for the unknown eligibility adjustment step
*** Inputs:  conusA1.sas7bdat, oconusA1.sas7bdat, smplA1A2.sas7bdat
*** Outputs: logmdA1.sas7bdat
***
*** Written: 1)Haixia Xu 12/27/2006 Q4fy2007 weighting
***
***********************************************************************************************
***;

options ls=132 ps=79 compress=yes nocenter formdlim='~';

%let quarter=Q4FY2009;

%include "L:\Q4FY2009\Programs\Weighting\NewWeights\Zero_One_Cells.sas";

libname in   v8  "L:\&quarter.\Data\afinal"; /* conusA1.sas7bdat, oconusA1.sas7bdat */
libname out  v8  "L:\&quarter.\Data\afinal"; /* logmdA1.sas7bdat */

proc format;
value FMT_TNEX 1 = '1-North'
              2 = '2-South'
              3 = '3-West'
              4 = '4-Other';
value FMT_AGE  1 = '<=24'
              2 = '(24,34]'
              3 = '(34,44]'
              4 = '(44,64]'
              5 = ' >=65';
value FMT_PATC 1 = '1-ACTDTY_EMAIL'
              2 = '2-ACTDTY_NOEMAIL'
              3 = '3-DEPACT'
              4 = '4-NADD';
value FMT_PAT 1 = '1-ACTDTY'
              2 = '2-DEPACT'
              3 = '3-NADD';
value FMT_PCM  1 = '1-Nonenrollee'
              2 = '2-CIV Enrollee'
              3 = '3-MTF Enrollee';
value FMT_PNLC 1 = '1-Other'
              2 = '2-Grd/Resv';
value FMT_RANK 1 = '1-E1234'
              2 = '2-E56789101112'
              3 = '3-W123O123'
              4 = '4-W45O45678910';
value FMT_RK   1 = '1-E1_12'
               2 = '2-W1_5O1_10';
value FMT_SEX  1 = '1-Male'
              2 = '2-Female';
value FMT_SVC  1 = '1-Army'
              2 = '2-Air Force'
              3 = '3-N/M/C/O/U';
value FMT_INCT 1 = '1-Not in Catch'
              2 = '2-In catch';
value FMT_PLUS 1 = '1- TRICARE PLUS'
              2 = '2- Not TRICARE PLUS';
value FMT_TRS 1 = '1- TRICARE Reserve Select'
              2 = '2- Not TRICARE Reserve Select';
value FMT_addr 0 = '0- CHCS mailling address unavailable'
              1 = '1- CHCS mailling address available';
value FMT_emai 1 = 'AD with Email Address available'
              2 = 'AD with Email Address unavailable'
              3 = 'Non Active Duty(AD)';
run;
```

```
title1 'Program: logmdA1.sas';
title2 'Purpose: Predict the response probability for the unknown eligibility adjustment';

*================================================================================================
===
Create the dummy variables to be used in the SUDAAN model
================================================================================================
==;
/*
title3 'Check to see what kind of values mprid and stratum have';
proc freq data=in.smplA1(obs=20);
tables MPRID stratum/missing list;
run;
*/

data logmdA1;
set in.conusA1 in.oconusA1;

*Convert MPRID and stratum into numerical values since SUDAAN takes only numerical values;
length MPRID_c9 $9 stratum1 $8 ;
MPRID_c9='1'||MPRID;
MPRID_nm = input (MPRID_c9, 9.);

stratum1='1'||stratum;
STRAT_nm = input (stratum1, 8.);

****************************
Convert all the categorical variables into numeric variables
****************************;
if TNEX_grp='N' then TNEX_num=1;
else if TNEX_grp='S' then TNEX_num=2;
else if TNEX_grp='W' then TNEX_num=3;
else if TNEX_grp='O' then TNEX_num=4;

AGE_num5=input(AGE_grp5, 1.);

if PATC_grp= 'ACTDTY_EMAIL' then PATC_num=1;
else if PATC_grp= 'ACTDTY_NOEMAIL' then PATC_num=2;
else if PATC_grp= 'DEPACT' then PATC_num=3;
else if PATC_grp = 'NADD'   then PATC_num=4;

if PCM_grp='NON' then PCM_num=1;
else if PCM_grp='CIV' then PCM_num=2;
else if PCM_grp='MTF' then PCM_num=3;

if PNLC_grp ='Other' then PNLC_num=1;
else if PNLC_grp= 'Grd/Resv' then PNLC_num=2;

if RANK_grp='E1234' then RANK_num=1;
else if RANK_grp= 'E56789101112' then RANK_num=2 ;
else if RANK_grp = 'W123O123' then RANK_num= 3;
else if RANK_grp = 'W45O45678910' then RANK_num=4;

if SEX_grp='1' then SEX_num=1;
else if SEX_grp= '2' then SEX_num = 2;

if SVC_grp='Army' then SVC_num=1;
else if SVC_grp='Air Force' then SVC_num=2;
else if SVC_grp='N/M/C/O/U' then SVC_num=3;

if IN_CATCH='0' then INCAT_num=1;
else if IN_CATCH='1' then INCAT_num=2;

if hasemail='YES' then Email_num=1;
else if hasemail='NO' then Email_num=2;
else if hasemail='N/A' then Email_num=3;
run;
/*
title3 'Freq of MPRID_nm*mprid strat_nm*stratum';
proc freq data=logmdA1(obs=50);
tables MPRID_nm*mprid strat_nm*stratum/ missing list;
run;
*/
title3 'Check the construction of the numeric variables';
```

```
proc freq data=logmdA1;
tables TNEX_num*TNEX_grp
       AGE_num5*AGE_grp5
       PATC_num*PATC_grp
       PCM_num*PCM_grp
       PNLC_num*PNLC_grp
       RANK_num*RANK_grp
       SEX_num*SEX_grp
       SVC_num*SVC_grp
        INCAT_num*IN_CATCH
       Email_num*HasEmail*patcat
/missing list;
run;

data conus oconus;
set logmdA1;
if conus='1' then output conus;
else if conus='0' then output oconus;
run;


******************
Check the zero cell before the modeling for CONUS
******************;

%let Vars_in_interactions_conus = age_grp5 tnex_grp patc_grp pnlc_grp pcm_grp rank_grp chcsaddr
in_catch pnlc_grp svc_grp sex_grp;

 /*Interactions from chaid */
%let Interactions_from_chaid_conus =
/*Q4FY09*/
age_grp5*in_catch*tnex_grp
age_grp5*rank_grp*svc_grp
age_grp5*rank_grp*patc_grp
age_grp5*patc_grp*pnlc_grp

age_grp5*in_catch
age_grp5*tnex_grp
age_grp5*rank_grp
age_grp5*svc_grp
age_grp5*patc_grp
age_grp5*pnlc_grp

in_catch*tnex_grp
rank_grp*svc_grp
rank_grp*patc_grp
patc_grp*pnlc_grp
;

title3 "Check the zero cells for conus";
%ZERO_ONE_CELLS(conus, &Vars_in_interactions_conus., eligkwn, &Interactions_from_chaid_conus.);

title3 "Q4FY2009: Check to see how to collapse";
proc freq data=conus;
tables
age_grp5*patc_grp*rank_grp*eligkwn
age_grp5*patc_grp*pnlc_grp*eligkwn
/missing list SPARSE;
run;


/*Q4FY2009*/
data conus;
set conus;
age_grp5_old=age_grp5;
patc_grp_old=patc_grp;
pnlc_grp_old=pnlc_grp;
rank_grp_old=rank_grp;

if age_grp5='5' and patc_grp='ACTDTY_NOEMAIL' and rank_grp='E56789101112' then do;
  age_grp5='4';
  age_num5=4;
  flag1=1;
end;
```

```
  else if age_grp5='5' and patc_grp='ACTDTY_NOEMAIL' and rank_grp='W123O123' then do;
     rank_grp='W45O45678910';
     rank_num=4;
     flag2=1;
  end;

  else if age_grp5='1' and patc_grp='NADD' and pnlc_grp='Grd/Resv' then do;
     pnlc_grp='Other';
     pnlc_num=1;
     flag3=1;
  end;

  else if age_grp5='2' and patc_grp='NADD' and pnlc_grp='Grd/Resv' then do;
     pnlc_grp='Other';
     pnlc_num=1;
     flag4=1;
  end;

  else if age_grp5='3' and patc_grp='NADD' and pnlc_grp='Grd/Resv' then do;
     pnlc_grp='Other';
     pnlc_num=1;
     flag5=1;
  end;

  else if age_grp5='5' and patc_grp='DEPACT' and pnlc_grp='Other' then do;
     pnlc_grp='Grd/Resv';
     pnlc_num=2;
     flag6=1;
  end;

  else if age_grp5='5' and patc_grp='NADD' and pnlc_grp='Grd/Resv' then do;
     pnlc_grp='Other';
     pnlc_num=1;
     flag7=1;
  end;
run;

title3 "Q4FY2009: Check the zero cell collapsements";
proc freq data=conus;
tables age_grp5*patc_grp*rank_grp*age_grp5_old*flag1
       age_grp5*patc_grp*rank_grp*rank_grp_old*flag2
       age_grp5*patc_grp*pnlc_grp*pnlc_grp_old*flag3*flag4*flag5*flag6*flag7

       age_grp5*age_num5
       patc_grp*patc_num
       rank_grp*rank_num
       pnlc_grp*pnlc_num
/missing list;
run;


title3 "Again....Checks the zero cells for Conus ";
%ZERO_ONE_CELLS(conus, &Vars_in_interactions_conus., eligkwn, &Interactions_from_chaid_conus.);


data conus;
   set conus(drop=age_grp5_old  patc_grp_old  pnlc_grp_old  rank_grp_old flag1-flag7);
run;


*/
******************
Run the SAs stepwise model
******************;

%macro modelselect_conus(method= );
title3 "SAS Logistic for CONUS - &method.";
proc logistic data=conus descending;
CLASS
TNEX_grp (ref='N')
AGE_grp5 (ref='1')
PATC_grp (ref='NADD')
PCM_grp  (ref='NON')
```

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```
PNLC_grp (ref='Other')
RANK_grp (ref='E1234')
SEX_grp  (ref='1')
SVC_grp  (ref='Army')
IN_CATCH (ref='0')
TRS      (ref='2')
CHCSAddr (ref='0')/param=ref descending;
MODEL  eligkwn =
TNEX_grp
AGE_grp5
PATC_grp
PCM_grp
PNLC_grp
RANK_grp
SEX_grp
SVC_grp
IN_CATCH
TRS
CHCSAddr

/*Q4FY2009*/
age_grp5*in_catch*tnex_grp
age_grp5*rank_grp*svc_grp
age_grp5*rank_grp*patc_grp
age_grp5*patc_grp*pnlc_grp

age_grp5*in_catch
age_grp5*tnex_grp
age_grp5*rank_grp
age_grp5*svc_grp
age_grp5*patc_grp
age_grp5*pnlc_grp
in_catch*tnex_grp
rank_grp*svc_grp
rank_grp*patc_grp
patc_grp*pnlc_grp

/Lackfit rsquare details hierarchy=single selection=&method. slentry=0.15 slstay=0.20;
OUTPUT OUT=out_conus PREDICTED=predicted;
run;
%mend modelselect_conus;

%modelselect_conus(method=stepwise);

*****************
Check the SUDAAN fit for the the model above
*****************;

/*
Summary of Stepwise Selection

                                  Effect                                  Number        Score
Wald
    Step    Entered                    Removed                DF        In    Chi-Square
Chi-Square    Pr > ChiSq

      1    AGE_grp5                                            4        1    5335.2636
<.0001
      2    RANK_grp                                            3        2     389.8079
<.0001
      3    PATC_grp                                            3        3     321.5568
<.0001
      4    SVC_grp                                             2        4     141.0295
<.0001
      5    PCM_grp                                             2        5      62.8105
<.0001
      6    AGE_grp5*PATC_grp                                  11        6      78.7162
<.0001
      7    SEX_grp                                             1        7      46.0147
<.0001
      8    AGE_grp5*SVC_grp                                    8        8      62.4428
<.0001
      9    AGE_grp5*RANK_grp                                  12        9      64.8279
<.0001
```

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```
    10     TRS                                          1        10      26.3499
<.0001
    11     in_catch                                     1        11       9.8295
0.0017
    12     RANK_grp*SVC_grp                             6        12      20.5892
0.0022
    13     PATC_grp*RANK_grp                            9        13      23.2254
0.0057
    14     TNEX_grp                                     2        14       9.8670
0.0072
    15     TNEX_grp*in_catch                            2        15       8.2637
0.0161
    16     CHCSAddr                                     1        16       3.4299
0.0640
    17     AGE_gr*PATC_g*RANK_g                        25        17      36.4101
0.0656
*/


proc sort data=conus;
by STRAT_nm;
run;


Title3 "The Final Model from SAS Stepwise - CONUS (Initial model-0 as we get from SAS
Logistic)";
proc rlogist data=conus design=STRWR filetype=SAS;
NEST STRAT_nm/missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num RANK_num SEX_num SVC_num INCAT_num TRS tnex_num email_num;
LEVELS      5        4       3       4       2       3       2       2   3        3;
REFLEVEL  AGE_num5=1 PATC_num=4 PCM_num=1 RANK_num=1 SEX_num=1 SVC_num=1 INCAT_num=1 TRS=2
tnex_num=1 email_num=1;
MODEL  eligkwn =

/*Q4FY2009*/
AGE_num5
RANK_num
PATC_num
SVC_num
PCM_num
SEX_num
TRS
incat_num
TNEX_num
CHCSAddr

AGE_num5*PATC_num
AGE_num5*SVC_num
AGE_num5*RANK_num
RANK_num*SVC_num
PATC_num*RANK_num
TNEX_num*incat_num
AGE_num5*PATC_num*RANK_num
;

idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ  HLCHIDF  HLCHIP  HLWALDF  HLWALDDF  HLWALDP  HLSATF  HLSATDF  HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_c filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PATC.;
rformat PCM_num  FMT_PCM.;
rformat RANK_num FMT_RANK.;
rformat SEX_num  FMT_SEX.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs fmt_trs.;
rformat tnex_num fmt_tnex.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
```

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```
Title3 "The Final Model from SAS Stepwise - CONUS ";
TItle4 " From last model, got SINGULAR warning in Log";
Title5 " After  Investigation,  (Age*Patc*Rank)  Removed  from  Initial  Model  which  creating
singularity";
proc rlogist data=conus design=STRWR filetype=SAS;
NEST STRAT_nm/missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num RANK_num SEX_num SVC_num INCAT_num TRS tnex_num email_num;
LEVELS      5      4      3      4      2      3      2      2      3      3;
REFLEVEL  AGE_num5=1  PATC_num=4  PCM_num=1  RANK_num=1  SEX_num=1  SVC_num=1  INCAT_num=1  TRS=2
tnex_num=1 email_num=1;
MODEL  eligkwn =
/*Q4FY2009*/
AGE_num5
RANK_num
PATC_num
SVC_num
PCM_num
SEX_num
TRS
incat_num
TNEX_num
CHCSAddr

AGE_num5*PATC_num
AGE_num5*SVC_num
AGE_num5*RANK_num
RANK_num*SVC_num
PATC_num*RANK_num
TNEX_num*incat_num
/*AGE_num5*PATC_num*RANK_num*/  /*Create Singularity*/
;

idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ  HLCHIDF  HLCHIP  HLWALDF  HLWALDDF  HLWALDP  HLSATF  HLSATDF  HLSATP  DF  WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_c filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PATC.;
rformat PCM_num  FMT_PCM.;
rformat RANK_num FMT_RANK.;
rformat SEX_num  FMT_SEX.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs fmt_trs.;
rformat tnex_num fmt_tnex.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;


Title3 "The Final Model from SAS Stepwise - CONUS (Final INITIAL MODEL)";
TItle4 " From last model we can see, SINGULAR warning still in Log";
Title5 " Removing both (Age*Patc*Rank) and (Age*Patc) from INITIAL MODEL";
proc rlogist data=conus design=STRWR filetype=SAS;
NEST STRAT_nm/missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num RANK_num SEX_num SVC_num INCAT_num TRS tnex_num email_num;
LEVELS      5      4      3      4      2      3      2      2      3      3;
REFLEVEL  AGE_num5=1  PATC_num=4  PCM_num=1  RANK_num=1  SEX_num=1  SVC_num=1  INCAT_num=1  TRS=2
tnex_num=1 email_num=1;
MODEL  eligkwn =
/*Q4FY2009*/
AGE_num5
RANK_num
PATC_num
SVC_num
PCM_num
SEX_num
TRS
incat_num
TNEX_num
```

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```
CHCSAddr

/*AGE_num5*PATC_num*/          /*Create Singularity*/
AGE_num5*SVC_num
AGE_num5*RANK_num
RANK_num*SVC_num
PATC_num*RANK_num
TNEX_num*incat_num
/*AGE_num5*PATC_num*RANK_num*/  /*Create Singularity*/
;

idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ  HLCHIDF  HLCHIP  HLWALDF  HLWALDDF  HLWALDP  HLSATF  HLSATDF  HLSATP  DF  WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_c filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PATC.;
rformat PCM_num  FMT_PCM.;
rformat RANK_num FMT_RANK.;
rformat SEX_num  FMT_SEX.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs fmt_trs.;
rformat tnex_num fmt_tnex.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;

*Result:
 H-l Sattert-hwaite P-value : 0.0001
 No warning in log
 After Investigation, Removing (Patc*Rank) next;


Title3 "The Final Model from SAS Stepwise - CONUS (TRY1)";
Title4 "  Removed : (Patc*Rank)";
proc rlogist data=conus design=STRWR filetype=SAS;
NEST STRAT_nm/missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num RANK_num SEX_num SVC_num INCAT_num TRS tnex_num email_num;
LEVELS       5       4       3       4       2       3       2       2       3       3;
REFLEVEL AGE_num5=1 PATC_num=4 PCM_num=1 RANK_num=1 SEX_num=1 SVC_num=1 INCAT_num=1 TRS=2
tnex_num=1 email_num=1;
MODEL  eligkwn =
/*Q4FY2009*/
AGE_num5
RANK_num
PATC_num
SVC_num
PCM_num
SEX_num
TRS
incat_num
TNEX_num
CHCSAddr

/*AGE_num5*PATC_num*/          /*Create Singularity*/
AGE_num5*SVC_num
AGE_num5*RANK_num
RANK_num*SVC_num
/*PATC_num*RANK_num*/          /*Remove 1st*/
TNEX_num*incat_num
/*AGE_num5*PATC_num*RANK_num*/  /*Create Singularity*/
;

idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ  HLCHIDF  HLCHIP  HLWALDF  HLWALDDF  HLWALDP  HLSATF  HLSATDF  HLSATP  DF  WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_c filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PATC.;
rformat PCM_num  FMT_PCM.;
```

```
rformat RANK_num FMT_RANK.;
rformat SEX_num  FMT_SEX.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs fmt_trs.;
rformat tnex_num fmt_tnex.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;

*Result:
 H-l Sattert-hwaite P-value : 0.0038
 No warning in log
 After Investigation, Removing (Age*Rank) next;


Title3 "The Final Model from SAS Stepwise - CONUS (TRY2)";
Title4 "  Removed : (Patc*Rank),(Age*Rank)";
proc rlogist data=conus design=STRWR filetype=SAS;
NEST STRAT_nm/missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num RANK_num SEX_num SVC_num INCAT_num TRS tnex_num email_num;
LEVELS     5       4       3       4       2       3       2       2    3       3;
REFLEVEL  AGE_num5=1 PATC_num=4 PCM_num=1 RANK_num=1 SEX_num=1 SVC_num=1 INCAT_num=1 TRS=2
tnex_num=1 email_num=1;
MODEL  eligkwn =
/*Q4FY2009*/
AGE_num5
RANK_num
PATC_num
SVC_num
PCM_num
SEX_num
TRS
incat_num
TNEX_num
CHCSAddr

/*AGE_num5*PATC_num*/          /*Create Singularity*/
AGE_num5*SVC_num
/*AGE_num5*RANK_num*/          /*Remove 2nd*/
RANK_num*SVC_num
/*PATC_num*RANK_num*/          /*Remove 1st*/
TNEX_num*incat_num
/*AGE_num5*PATC_num*RANK_num*/  /*Create Singularity*/
;

idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ  HLCHIDF  HLCHIP  HLWALDF  HLWALDDF  HLWALDP  HLSATF  HLSATDF  HLSATP  DF  WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_c filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PATC.;
rformat PCM_num  FMT_PCM.;
rformat RANK_num FMT_RANK.;
rformat SEX_num  FMT_SEX.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs fmt_trs.;
rformat tnex_num fmt_tnex.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;

*Result:
 H-l Sattert-hwaite P-value : 0.0716
 No warning in log
 FINAL CONUS MODEL;



*================================================================================================
===
```

```
Start the modeling for OCONUS
In the full model, all the variables put in the answer tree are used as main effects, and
the interactions are picked based on the tree for Oconus A1 for the current quarter
================================================================================================
==;

/*The interactions below are determined based on the oconus A1 tree for the current quarter*/
/*A lot of zero cells are due to the ACTDTY_EMAIL,ACTDTY_NOEMAIL,
so combine these two categories for OCONUS*/
data oconus;
set oconus;
patc_grp_old=patc_grp;
if patc_grp in ('ACTDTY_EMAIL','ACTDTY_NOEMAIL') then PATC_grp='ACTDTY';

if PATC_grp='ACTDTY' then PATC_num=1;
else if PATC_grp= 'DEPACT' then PATC_num=2;
else if PATC_grp = 'NADD'  then PATC_num=3;
if age_grp5='5' then do; age_grp5='4'; age_num5=4; end;
run;

title3 'check the collapsements';
proc freq data=oconus;
tables patc_grp*patc_grp_old
       patc_grp*patc_num
       /missing list;
run;


%let Vars_in_interactions_oconus = age_grp5 patc_grp pcm_grp pnlc_grp svc_grp sex_grp rank_grp
in_catch;

 /*Interactions from chaid*/
%let Interactions_from_chaid_oconus =
/*Q4FY2009*/
age_grp5*svc_grp*rank_grp
age_grp5*patc_grp*rank_grp
age_grp5*patc_grp*svc_grp
age_grp5*svc_grp*in_catch

age_grp5*svc_grp
age_grp5*rank_grp
age_grp5*patc_grp
age_grp5*in_catch
svc_grp*rank_grp
patc_grp*rank_grp
patc_grp*svc_grp
svc_grp*in_catch
;

title3 "Check the zero cells for oconus";
%ZERO_ONE_CELLS(oconus,                   &Vars_in_interactions_oconus.,                 eligkwn,
&Interactions_from_chaid_oconus.);

title3 "Q4FY2009: Check to see how to collapse : Oconus";
proc freq data=oconus;
tables
age_grp5*PATC_grp*RANK_grp*eligkwn
age_grp5*PATC_grp*SVC_grp*eligkwn
/missing list SPARSE;;
run;


/*Collapse the zero cells*/
/*Q4FY2009*/
      data oconus;
           set oconus;
           rank_grp_old=rank_grp;
           svc_grp_old=svc_grp;
           patc_grp_old=patc_grp;
           age_grp5_old=age_grp5;

           if age_grp5 ='1' and patc_grp='NADD' and rank_grp='W123O123' then do;
              rank_grp='W45O45678910';
              rank_num=4;
```

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```
                flag1=1;
            end;
            else if age_grp5 ='2' and patc_grp='NADD' and rank_grp in ('W123O123','W45O45678910')
then do;
            PATC_grp='DEPACT';
            PATC_num=2;
            flag2=1;
            end;
            else if age_grp5 ='3' and patc_grp='NADD' and rank_grp='E1234' then do;
                rank_grp='E56789101112';
                rank_num=2;
                flag3=1;
            end;
            else if age_grp5='2' and PATC_grp='NADD' and svc_grp='Air Force' then do;
              PATC_grp='DEPACT';
              PATC_num=2;
              Flag4=1;
            end;
        run;


title3 "Check the zero cells for oconus again";
%ZERO_ONE_CELLS(oconus,                   &Vars_in_interactions_oconus.,                eligkwn,
&Interactions_from_chaid_oconus.);

title3 'Q4FY2009: check zero cell collapsements (OCONUS)';
proc freq data=oconus;
tables age_grp5*patc_grp*rank_grp*rank_grp_old*flag1*flag3/missing list;
tables age_grp5*patc_grp*rank_grp*patc_grp_old*flag2/missing list;
tables age_grp5*patc_grp*svc_grp*patc_grp_old*flag4/missing list;
run;

title3 'Q4FY2009: check zero cell collapsements (OCONUS)';
proc freq data=oconus;
tables age_grp5*patc_grp*svc_grp*patc_grp_old*rank_grp*flag4*flag2/missing list;
tables age_grp5*patc_grp*svc_grp*patc_grp_old/missing list;
where age_grp5='2' and svc_grp='Air Force' and PATC_grp='DEPACT';
run;


data oconus;
   set oconus(drop= rank_grp_old  svc_grp_old  patc_grp_old age_grp5_old flag1-flag4);
run;


/* SAS modeling*/
%macro modelselect_oconus(method= );
title3 "SAS Logistic for OCONUS - &method.";
proc logistic data=oconus descending;
CLASS
AGE_grp5 (ref='1')
PATC_grp (ref='NADD')
PCM_grp  (ref='NON')
PNLC_grp (ref='Other')
RANK_grp (ref='E1234')
SEX_grp  (ref='1')
SVC_grp  (ref='Army')
IN_CATCH (ref='0')
TRS      (ref='2')
CHCSAddr (ref='0')
HASEmail(ref='YES')/param=ref descending;
MODEL  eligkwn =
AGE_grp5
PATC_grp
PCM_grp
PNLC_grp
RANK_grp
SEX_grp
SVC_grp
IN_CATCH
TRS
CHCSAddr
HasEmail

/*Q4FY2009*/
age_grp5*svc_grp*rank_grp
```

```
age_grp5*patc_grp*rank_grp
age_grp5*patc_grp*svc_grp
age_grp5*svc_grp*in_catch

age_grp5*svc_grp
age_grp5*rank_grp
age_grp5*patc_grp
age_grp5*in_catch
svc_grp*rank_grp
patc_grp*rank_grp
patc_grp*svc_grp
svc_grp*in_catch

/Lackfit rsquare details hierarchy=single selection=&method. slentry=0.15 slstay=0.20;
OUTPUT OUT=out_oconus PREDICTED=predicted;
run;
%mend modelselect_oconus;

%modelselect_oconus(method=stepwise);



/*
Q4FY2009                                Summary of Stepwise Selection

                           Effect                                Number        Score
Wald
     Step     Entered              Removed           DF           In     Chi-Square
Chi-Square    Pr > ChiSq

       1      AGE_grp5                                 3           1       353.8695
<.0001
       2      SVC_grp                                  2           2        56.7310
<.0001
       3      PATC_grp                                 2           3        39.9815
<.0001
       4      RANK_grp                                 3           4        24.9242
<.0001
       5      AGE_grp5*SVC_grp                         6           5        30.9975
<.0001
       6      HasEmail                                 1           6         8.7969
0.0030
       7      AGE_grp5*RANK_grp                        9           7        21.4113
0.0109
       8      RANK_grp*SVC_grp                         6           8        13.9256
0.0305
       9      AGE_grp5*PATC_grp                        6           9        13.3491
0.0378
      10      PCM_grp                                  2          10         5.2493
0.0725
      11      in_catch                                 1          11        12.4882
0.0004
      12      SVC_grp*in_catch                         2          12         9.9223
0.0070
      13      CHCSAddr                                 1          13         2.3523

*/


proc sort data=oconus;
by STRAT_nm;
run;


title3 "The final model from SAS stepwise -OCONUS - Initial Model-0";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num PNLC_num  RANK_num SVC_num  TRS incat_num email_num;
LEVELS      4        3        3        2         4        3          2 2 3;
REFLEVEL AGE_num5=1 PATC_num=3 PCM_num=1 PNLC_num=1 RANK_num=1 SVC_num=1   TRS=2 incat_num=1
email_num=1;
MODEL  eligkwn =
```

```
/*Q4FY2009*/
AGE_num5
SVC_num
PATC_num
RANK_num
Email_num
PCM_num
incat_num
CHCSAddr

AGE_num5*SVC_num
AGE_num5*RANK_num
RANK_num*SVC_num
AGE_num5*PATC_num
SVC_num*incat_num

;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ   HLCHIDF   HLCHIP   HLWALDF   HLWALDDF   HLWALDP   HLSATF   HLSATDF   HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
*Singularity Warning in log;


***note: from output of above model noticed, removing Email or Patc from the initial
***      model solve the singular warning problem in log. We have interaction term
***      with Patc, removing Email from the initial model.;

title3 "The final model from SAS stepwise -OCONUS - Final INITIAL MODEL";
title4 " Previous model has singularity warning. Removed 'Email' from model for final initial
model";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num PNLC_num  RANK_num SVC_num  TRS incat_num email_num;
LEVELS       4         3        3        2        4        3        2 2 3;
REFLEVEL AGE_num5=1 PATC_num=3 PCM_num=1 PNLC_num=1 RANK_num=1 SVC_num=1   TRS=2 incat_num=1
email_num=1;
MODEL  eligkwn =

/*Q4FY2009*/
AGE_num5
SVC_num
PATC_num
RANK_num
/*Email_num*/                /*Create Singularity*/
PCM_num
incat_num
CHCSAddr

AGE_num5*SVC_num
AGE_num5*RANK_num
RANK_num*SVC_num
AGE_num5*PATC_num
SVC_num*incat_num

;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ   HLCHIDF   HLCHIP   HLWALDF   HLWALDDF   HLWALDP   HLSATF   HLSATDF   HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
```

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```
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
*Result:
 H-l Sattert-hwaite P-value : 0.0645
 No warning in log
 Remove next : (Age*SVC) - pvalue=0.7030;


title3 "The final model from SAS stepwise -OCONUS - TRY1";
title4 " Removed: (Age*SVC)";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num PNLC_num  RANK_num SVC_num  TRS incat_num email_num;
LEVELS     4        3        3        2        4        3        2 2 3;
REFLEVEL  AGE_num5=1 PATC_num=3 PCM_num=1 PNLC_num=1 RANK_num=1 SVC_num=1   TRS=2 incat_num=1
email_num=1;
MODEL  eligkwn =

/*Q4FY2009*/
AGE_num5
SVC_num
PATC_num
RANK_num
/*Email_num*/                   /*Create Singularity*/
PCM_num
incat_num
CHCSAddr

/*AGE_num5*SVC_num*/          /*1st*/
AGE_num5*RANK_num
RANK_num*SVC_num
AGE_num5*PATC_num
SVC_num*incat_num


;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ   HLCHIDF   HLCHIP   HLWALDF   HLWALDDF   HLWALDP   HLSATF   HLSATDF   HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
*Result:
 H-l Sattert-hwaite P-value : 0.2983
 No warning in log
removie next PCM = 0.6031;



title3 "The final model from SAS stepwise -OCONUS - TRY2";
title4 " Removed: (Age*SVC), PCM";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num PNLC_num  RANK_num SVC_num  TRS incat_num email_num;
```

```
LEVELS       4       3       3       2       4       3       2 2 3;
REFLEVEL AGE_num5=1 PATC_num=3 PCM_num=1 PNLC_num=1 RANK_num=1 SVC_num=1   TRS=2 incat_num=1
email_num=1;
MODEL  eligkwn =

/*Q4FY2009*/
AGE_num5
SVC_num
PATC_num
RANK_num
/*Email_num*/                  /*Create Singularity*/
/*PCM_num*/                    /*2nd*/
incat_num
CHCSAddr

/*AGE_num5*SVC_num*/           /*1st*/
AGE_num5*RANK_num
RANK_num*SVC_num
AGE_num5*PATC_num
SVC_num*incat_num

;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ   HLCHIDF   HLCHIP   HLWALDF   HLWALDDF   HLWALDP   HLSATF   HLSATDF   HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
*Result:
 H-l Sattert-hwaite P-value : 0.0999
 No warning in log
REmovie next SVC_num*incat_num = 0.4559;


title3 "The final model from SAS stepwise -OCONUS - TRY3";
title4 " Removed: (Age*SVC), PCM, (SVC_num*incat_num)";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num PNLC_num  RANK_num SVC_num  TRS incat_num email_num;
LEVELS       4       3       3       2       4       3       2 2 3;
REFLEVEL AGE_num5=1 PATC_num=3 PCM_num=1 PNLC_num=1 RANK_num=1 SVC_num=1   TRS=2 incat_num=1
email_num=1;
MODEL  eligkwn =

/*Q4FY2009*/
AGE_num5
SVC_num
PATC_num
RANK_num
/*Email_num*/                  /*Create Singularity*/
/*PCM_num*/                    /*2nd*/
incat_num
CHCSAddr

/*AGE_num5*SVC_num*/           /*1st*/
AGE_num5*RANK_num
RANK_num*SVC_num
AGE_num5*PATC_num
/*SVC_num*incat_num*/          /*3rd*/

;
idvar MPRID_nm;
```

```
print beta sebeta t_beta p_beta
HLCHISQ   HLCHIDF   HLCHIP   HLWALDF   HLWALDDF   HLWALDP   HLSATF   HLSATDF   HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
*Result:
 H-l Sattert-hwaite P-value : 0.2677
 No warning in log
REmovie next CHCSAddr = 0.5128;


title3 "The final model from SAS stepwise -OCONUS - TRY4";
title4 " Removed: (Age*SVC), PCM, (SVC_num*incat_num), CHCSAddr";
proc rlogist data=oconus design=STRWR filetype=SAS;
NEST STRAT_nm  / missunit;
weight bwt;
SUBGROUP AGE_num5 PATC_num PCM_num PNLC_num  RANK_num SVC_num  TRS incat_num email_num;
LEVELS      4        3        3        2       4        3       2 2 3;
REFLEVEL AGE_num5=1 PATC_num=3 PCM_num=1 PNLC_num=1 RANK_num=1 SVC_num=1  TRS=2 incat_num=1
email_num=1;
MODEL  eligkwn =

/*Q4FY2009*/
AGE_num5
SVC_num
PATC_num
RANK_num
/*Email_num*/                /*Create Singularity*/
/*PCM_num*/                  /*2nd*/
incat_num
/*CHCSAddr*/                 /*4th*/

/*AGE_num5*SVC_num*/         /*1st*/
AGE_num5*RANK_num
RANK_num*SVC_num
AGE_num5*PATC_num
/*SVC_num*incat_num*/        /*3rd*/

;
idvar MPRID_nm;
print beta sebeta t_beta p_beta
HLCHISQ   HLCHIDF   HLCHIP   HLWALDF   HLWALDDF   HLWALDP   HLSATF   HLSATDF   HLSATP   DF   WALDCHI
WALDCHP/betafmt=f7.3 sebetafmt=f7.3 WALDCHIFMT=F8.2;
output expected observed nest idvar /filename =pred_o filetype=sas replace;
rformat AGE_num5 FMT_AGE.;
rformat PATC_num FMT_PAT.;
rformat PCM_num  FMT_PCM.;
rformat PNLC_num  FMT_PNLC.;
rformat RANK_num FMT_RanK.;
rformat SVC_num  FMT_SVC.;
rformat INCAT_num FMT_INCT.;
rformat trs FMT_TRS.;
rformat chcsaddr fmt_addr.;
rformat email_num fmt_emai.;
run;
*Result:
 H-l Sattert-hwaite P-value : 0.4326
 No warning in log
**** FINAL OCONUS MODEL **************;



*================================================================================================
===
```

```
Compute the unknown eligibility adjustment factor A1
========================================================================================
==;
data pred;
set pred_c pred_o;
run;

proc sort data=pred;
by mprid_nm;
run;

proc sort data=logmdA1;
by mprid_nm;
run;

data logmdA1 only1 only2 problem;
merge logmdA1(in=A) pred(in=B);
by mprid_nm;
if A and B then output logmdA1;
else if A and NOT B then output only1;
else if B and NOT A then output only2;
else output problem;
run;

data out.logmdA1;
set logmdA1(rename=(expected=PscoreA1) drop=MPRID_c9 stratum1);
label TNEX_grp="Facility's TNEX region"
      PscoreA1="Propensity score for unknown eligibility adjustment";
run;

title3 "Contents of OUT.logmdA1";
title4;
proc contents data=OUT.logmdA1;
run;

title3 "Univariate of expected";
title4;
proc univariate data=out.logmdA1;
var PscoreA1;
run;

******************** The End **********************;
```

F.8   Q4FY2009\PROGRAMS\WEIGHTING\NEWWEIGHTS\ADJWT1.SAS - FORM THE WEIGHTING CLASSES FROM THE PROPENSITY SCORES THEN CALCULATE THE UNKNOWN ELIGIBILITY ADJUSTED WEIGHT - RUN QUARTERLY.

```
dm 'clear output;clear log';
***************************************************************************************************
***
*** Program: L:\Q4FY2009\Programs\Weighting\NewWeights\Adjwt1.sas
*** Task   : 6663-300 (new Sep09)
*** Purpose: - Create the weighting class cells based on the propensity from the unknown
eligibility modelling
***          - Calculate the unknown eligibility adjusted weight
***
*** Inputs:  logmdA1.sas7bdat, framea.sd2
*** Outputs: adjwt1.sas7bdat
***
*** Note: 1)Haixia Xu 12/27/2006
***       2)H. Xu on 3/29/2007 for q3fy2007 weighting
          3)S.Rahman on 09/16/2009 for Q4FY2009 Adult Weighting
***************************************************************************************************
***;

options ls=132 ps=79 compress=yes nocenter FORMCHAR='|-++++++++++' formdlim='~' obs=max;

%let quarter=Q4FY2009;

libname in   v8  "L:\&quarter.\Data\afinal";  /* logmdA1.sas7bdat */
libname in_f v8  "L:\&quarter.\Data\afinal";  /* framea.sas7bdat */
libname out  v8  "L:\&quarter.\Data\afinal";  /* adjwt1.sas7bdat */

title1 'Program: adjwt1.sas';
title2 'Purpose: Calculate the unknown eligibility adjusted weight';

***Calculate the denciles within conus region;
%macro univ_conus(inputdata=, step=, region=, var=, cellvar=, outputdata=);
/*
title3 "Univariate of &var. for conus=&region.";
proc sort data=&inputdata.;by eligkwn;run;
proc univariate data=&inputdata. plots;
var &var.;
where conus="&region.";
by eligkwn;
run;
*/
proc univariate data=&inputdata. noprint;
var &var.;
where conus="&region.";
output out=out pctlpts =10 20 30 40 50 60 70 80 90 pctlpre=cutoff;
run;

title3 "Dencile points for conus=&region.";
proc print data=out;
var cutoff10 cutoff20 cutoff30 cutoff40 cutoff50
    cutoff60 cutoff70 cutoff80 cutoff90;
run;

data temp;
set &inputdata.;
M=1;
where conus="&region.";
run;

data out;
set out;
M=1;
run;

data &outputdata.;
merge temp out;
by M;
run;

data &outputdata.;
```

```
set &outputdata.;
length &cellvar. $4;
if &var.<=cutoff10 then &cellvar. = "&step.&region.01"; **10th percentile or less;
else if &var.<=cutoff20  then &cellvar.  = "&step.&region.02";    **between 10th and 20th
percentile;
else if &var.<=cutoff30    then &cellvar. = "&step.&region.03";    **between 20th and 30th
percentile;
else if &var.<=cutoff40    then &cellvar. = "&step.&region.04";    **between 30th and 40th
percentile;
else if &var.<=cutoff50    then &cellvar. = "&step.&region.05";    **between 40th and 50th
percentile;
else if &var.<=cutoff60    then &cellvar. = "&step.&region.06";    **between 50th and 60th
percentile;
else if &var.<=cutoff70    then &cellvar. = "&step.&region.07";    **between 60th and 70th
percentile;
else if &var.<=cutoff80    then &cellvar. = "&step.&region.08";    **between 70th and 80th
percentile;
else if &var.<=cutoff90    then &cellvar. = "&step.&region.09";    **between 80th and 90th
percentile;
else if &var. >cutoff90  then &cellvar. = "&step.&region.10";  **greater than 90th percentile;
run;

data &outputdata.;
set &outputdata.;
drop cutoff10 cutoff20 cutoff30 cutoff40 cutoff50
     cutoff60 cutoff70 cutoff80 cutoff90 M;
run;

title3 "Freq of &cellvar.*&var. for conus=&region.";
proc freq data=&outputdata.;
tables &cellvar. &cellvar.*&var. /missing list;
run;
/*
title3 "Univariate of &var. for conus=&region. by &cellvar.";
proc sort data=&outputdata.;by  &cellvar. eligkwn;run;
proc univariate data=&outputdata. plots;
var &var.;
where conus="&region.";
by &cellvar. eligkwn;
run;
*/
%mend univ_conus;

***Calculate the 20th percentiles within oconus region;
%macro univ_oconus(inputdata=, step=, region=, var=, cellvar=, outputdata=);
/*
title3 "Univariate of &var. for conus=&region.";
proc sort data=&inputdata.;by eligkwn;run;
proc univariate data=&inputdata. plots;
var &var.;
where conus="&region.";
by eligkwn;
run;
*/
proc univariate data=&inputdata. noprint;
var &var.;
where conus="&region.";
output out=out pctlpts =20 40 60 80  pctlpre=cutoff;
run;

title3 "Dencile points for conus=&region.";
proc print data=out;
var cutoff20 cutoff40 cutoff60 cutoff80 ;
run;

data temp;
set &inputdata.;
M=1;
where conus="&region.";
run;

data out;
set out;
M=1;
```

```
run;

data &outputdata.;
merge temp out;
by M;
run;

data &outputdata.;
set &outputdata.;
length &cellvar. $4;
if &var.<=cutoff20 then &cellvar. = "&step.&region.01";  **20th percentile or less;
else if &var.<=cutoff40  then &cellvar.  = "&step.&region.02";   **between 20th and 40th
percentile;
else if &var.<=cutoff60   then &cellvar. = "&step.&region.03";   **between 40th and 60th
percentile;
else if &var.<=cutoff80   then &cellvar. = "&step.&region.04";   **between 60th and 80th
percentile;
else if &var. >cutoff80  then &cellvar. = "&step.&region.05";  **greater than 80th percentile;
run;

data &outputdata.;
set &outputdata.;
drop cutoff20 cutoff40 cutoff60 cutoff80 M;
run;

title3 "Freq of &cellvar.*&var. for conus=&region.";
proc freq data=&outputdata.;
tables &cellvar. &cellvar.*&var. /missing list;
run;
/*
title3 "Univariate of &var. for conus=&region. by &cellvar.";
proc sort data=&outputdata.;by  &cellvar. eligkwn;run;
proc univariate data=&outputdata. plots;
var &var.;
where conus="&region.";
by &cellvar. eligkwn;
run;
*/
%mend univ_oconus;

*******************************************************************************
Compute the dencile of PscoreA1 within conus/oconus region
******************************************************************************;
%univ_conus(inputdata=in.logmdA1,   step=1,   region=1,       var=PscoreA1,   cellvar=Pcell_A1,
outputdata=A1conus);
%univ_oconus(inputdata=in.logmdA1,    step=1,    region=0,    var=PscoreA1,    cellvar=Pcell_A1,
outputdata=A1oconus);

***combine conus/oconus together;
data merged;
set A1conus A1oconus;
/*
if Pcell_A1='1001' then Pcell_A1='1002';
if Pcell_A1='1101' then Pcell_A1='1102';
*/
run;

******************************************************************************
* Start to calculate the adjusted weight using the weighting class method
*********************************************************************;

%MACRO PROCESS(DOMAIN1, INPT);

  *** Initial Information. ***;

  title3 'FRAMEA.SD2 Count';

  proc freq data=in_f.framea;
  table enbgsmpl  / list missing;
  run;

  title3 'Weighted Counts Using BWT as the Weight - excluding fnstatus=32';

  proc freq data=&inpt.;
```

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```
    table enbgsmpl fnstatus / list missing;
    weight bwt;
    run;

    title3 'Sample Counts - excluding fnstatus=32 ';

    proc freq data=&inpt.;
    table enbgsmpl fnstatus web*fnstatus/ list missing;
    run;

PROC SORT DATA=&inpt.;
BY &DOMAIN1.;
RUN;

***************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
***************************************************************************;
Data  cellsa1 (keep=sumbwt sumg1-sumg3 A1 cellcnt cntg1-cntg3 &domain1. )
      mpridsa1 (keep=mprid fnstatus bwt &domain1. com_geo enbgsmpl)
    ;
    SET &INPT.;
    BY &DOMAIN1.;

    IF FIRST.&DOMAIN1. THEN DO;
       CELLCNT = 0;
       cntg1   = 0;
       cntg2   = 0;
       cntg3   = 0;
       SUMBWT  = 0.0;
       SUMG1   = 0.0;
       SUMG2   = 0.0;
       SUMG3   = 0.0;
       A1 = 0.0;
    END;
    CELLCNT + 1;

    ****************************************************
    * Accumulate total weight sum
    ****************************************************;

    SUMBWT + BWT;

    ****************************************************
    * Accumulate group 1 weight sum
    ****************************************************;

    IF FNSTATUS IN (11,12) THEN
       do;
          SUMG1 + BWT;
          cntg1 + 1;
       end;

    ****************************************************
    * Accumulate group 2 weight sum
    ****************************************************;

    ELSE IF FNSTATUS in (20,31) THEN
       do;
          SUMG2 + BWT;
          cntg2 + 1;
       end;

    ****************************************************
    * Accumulate group 3 weight sum
    ****************************************************;

    ELSE IF FNSTATUS in (41,42) THEN
       do;
          SUMG3 + BWT;
          cntg3 + 1;
       end;

    RETAIN SUMBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;
```

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```
   IF LAST.&DOMAIN1. THEN DO;
      A1 = SUMBWT/(SUMG1 + SUMG2);
      OUTPUT CELLSA1;
   END;

   OUTPUT MPRIDSA1;

RUN;


title3 'Check for CELLSA1 Data Set';

proc print data=cellsa1;
var &domain1. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

proc print data=cellsa1;
where ( a1> 7 ) or ( cntg1 + cntg2 < 15 );
var &domain1. cntg1-cntg3 cellcnt sumg1-sumg3 sumbwt a1;
sum cellcnt cntg1 cntg2 cntg3 sumbwt sumg1 sumg2 sumg3;
run;

proc univariate data=cellsa1 normal ;
var a1;
run;

proc sort data=mpridsa1;
by &domain1.;
run;

proc sort data=cellsa1;
by &domain1.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain1.;
if fnstatus in (11,12,20,31) then adj1 = a1;
   else adj1 = 0;
adjwt1 = adj1 * bwt;
run;

title3 'Checks for ADJ_ONE Data Set';

proc freq data=adj_one;
table &domain1.*fnstatus*adj1/ list missing;
run;

proc freq data=adj_one;
tables adjwt1*&domain1.*bwt/missing list;
where adjwt1 ~=0;
run;
/*
proc freq data=adj_one;
tables &domain1.*stratum*bwt/missing list;
where adjwt1 ~=0;
run;
*/

title3 " Checking the individuals with the largest adjwt";
proc sort data=adj_one out=sorted;
by descending adjwt1;
run;

proc print data=sorted (obs=200);
var &domain1. fnstatus BWT a1 adj1 adjwt1 ;
run;

proc means data=adj_one n sum NOPRINT;
class fnstatus;
var adjwt1;
output out=print sum=sum;
```

```
run;

Proc print data=print;
sum _freq_ sum;
where _type_=1;
run;

proc means data=adj_one n sum NOPRINT;
class enbgsmpl;
var adjwt1;
output out=print sum=sum;
run;

Proc print data=print;
sum _freq_ sum;
where _type_=1;
run;

****************************************************************************
* Sort the original data
****************************************************************************;

PROC SORT DATA=&INPT.;
BY MPRID;
RUN;

****************************************************************************
* Sort the ADJ_ONE data set
****************************************************************************;

PROC SORT DATA=adj_one;
BY MPRID;
RUN;

****************************************************************************
* Append the adjusted weight variable (adjwt1)
****************************************************************************;
DATA out.adjwt1;
   MERGE adj_one(in=A) &INPT.(in=B);
   BY MPRID;
   if A and B;
RUN;

title3 'Sum of Adjwt By Final Status';

proc means data=out.adjwt1 n sum NOPRINT;
class fnstatus;
var adjwt1;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 "Propensity Score Weighting Method - Individual Level Adjwt";
proc univariate data=out.adjwt1 normal ;
where fnstatus=11;
var adjwt1;
run;

/*Beneficiary's tnexreg*/
proc sort data=out.adjwt1;
by tnexreg;
run;

title3 "Distribution of weights by tnexreg";
proc means data=out.adjwt1 noprint ;
where fnstatus=11;
var adjwt1;
by tnexreg;
output out=out_tnex(drop=_type_ _freq_) n=n mean=mean std=stddev min=min max=max ;
run;
```

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```
proc print data=out_tnex;
sum  n;
run;

/*Facility's tnexreg*/
proc sort data=out.adjwt1;
by TNEX_grp;
run;

title3 "Distribution of weights by Facility's TNEX region: TNEX_grp";
proc means data=out.adjwt1 noprint ;
where fnstatus=11;
var adjwt1;
by TNEX_grp;
output out=out_tnex(drop=_type_ _freq_) n=n mean=mean std=stddev min=min max=max ;
run;

proc print data=out_tnex;
sum  n;
run;

*****************************************************************************
* Calculate final weight based on user-specified parameters.
****************************************************************************;
%MEND PROCESS;
%PROCESS(Pcell_A1, merged);
RUN;
```

F.9 Q4FY2009\PROGRAMS\WEIGHTING\NEWWEIGHTS\ADJWT2.SAS - FORM THE WEIGHTING CLASSES BASED ON THE ANSWER TREES THEN CALCULATE THE NONRESPONSE ADJUSTED WEIGHT - RUN QUARTERLY.

```
*****************************************************************************************************
***
*** Program: L:\Q4FY2009\Programs\Weighting\NewWegihts\Adjwt2.sas
*** Task   : 6663-300 (new Sep09)
*** Purpose: Calculate the final adjusted weight
*** Inputs:  smplA2.sas7bdat, adjwt1.sas7bdat
*** Outputs: Adjwt2.sas7bdat
***
*** Note:    1)Haixia Xu 12/27/2006
***          2)H. Xu on 03/29/2007 for q2fy2007 weighitng
*****************************************************************************************************
***;

options ls=132 ps=79 compress=yes nocenter FORMCHAR='|-++++++++++' formdlim='~';

%let quarter=Q4FY2009;

libname in   v8  "L:\&quarter.\Data\afinal"; /* smplA2.sas7bdat, adjwt1.sas7bdat */
libname out  v8  "L:\&quarter.\Data\afinal"; /* adjwt2.sas7bdat */

title1 'Program: adjwt2.sas';
title2 'Purpose: Calculate the nonresponse adjusted weight';

********************************************************************************
Merge smplA2 with adjwt1 to get the variable adjwt1
********************************************************************************;
proc sort data=in.smplA2 out=smplA2;
by MPRID;
run;

proc sort data=in.adjwt1(keep=MPRID adj1 adjwt1)
out=adjwt1;
by MPRID;
run;

data merged only1 only2 problem;
merge smplA2(in=A) adjwt1(in=B);
by MPRID;
if A and B then output merged;
else if A and NOT B then output only1;
else if B and NOT A then output only2;
else output problem;
run;


********************************************************************************
Since there is not much going on in 2nd stage, we decided not to do the modeling,
and instead to create the weight cells based on the A2 tree for the current quarter.
Pcell_A2=adjustment stage||region||cell index.
adjustment stage: 1-unknown eligbility adjustment stage, 2 - nonresponse adjustment stage
region: 1 - conus, 0-oconus
cell index: 01- #of terminal nodes
********************************************************************************;
data merged;
set merged;
length Pcell_A2 $4;

/*Q4FY2009 for Conus (Based on Conus_A2_level3_AgeGRP5_tree.htm)*/
if conus='1' then do;
  if PATC_grp in ('NADD','DEPACT') then Pcell_A2='2101';
   else if PATC_grp in ('ACTDTY_EMAIL','ACTDTY_NOEMAIL') then do;
     if AGE_grp5 in ('3','4','5') then Pcell_A2='2102';
       else if AGE_grp5 ='2' then Pcell_A2='2103';
       else if AGE_grp5 ='1' then do;
         if SVC_grp in ('N/M/C/O/U','Army') then Pcell_A2='2104';
          else if SVC_grp='Air Force' then Pcell_A2='2105';
         end;
     end;
   end;
  end;
```

```
/*Q4FY2009 for Oconus (Based on Oconus_A2_level3_AgeGRP5_tree.htm)*/
else if conus='0' then do;
  if AGE_grp5 in ('3','2') then do;
      if SEX_grp='2' then Pcell_A2='2001';
          else if SEX_grp='1' then Pcell_A2='2002';
      end;
    else if AGE_grp5 in ('4','5') then Pcell_A2='2003';
    else if AGE_grp5='1' then Pcell_A2='2004';
  end;
run;


title3 'Check the construction of weighting classes';
proc freq data=merged;
tables conus*Pcell_A2/missing list;
run;

proc freq data=merged;
where conus='1';
tables conus*pcell_a2*patc_grp*age_grp5*svc_grp  /missing list;
run;

proc freq data=merged;
where conus='0';
tables conus*pcell_a2*age_grp5*sex_grp/missing list;
run;


* Calculate nonresponse adjusted weight based on user-specified domains.
************************************************************************;
%MACRO PROCESS(DOMAIN2, INPT);

title3 "Freq of fnstatus in &inpt.";
proc freq data=&inpt.;
tables fnstatus/missing list;
run;

proc sort data=&inpt.;
BY &domain2.;
run;

DATA CELLSA2 (KEEP= &domain2. NUMER DENOM numercnt denomcnt A2);
   set &inpt. ;
   BY &domain2.;

   IF FIRST.&domain2. THEN DO;
      A2 = 0.0;
      NUMER = 0.0;
      DENOM = 0.0;
      numercnt = 0;
      denomcnt = 0;
   END;


   RETAIN NUMER DENOM A2 numercnt denomcnt;

   IF FNSTATUS IN (11,12,20) THEN
      do;
         NUMER + adjwt1;
         numercnt + 1;
      end;

   IF FNSTATUS = 11 THEN
      do;
         DENOM + adjwt1;
         denomcnt + 1;
      end;

   IF LAST.&domain2. THEN DO;
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;

RUN;
```

```
title3 'Check for CELLSA2 Data Set';

proc print data=cellsa2;
var &domain2. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

proc print data=cellsa2;
where ( a2 > 7 ) or ( denomcnt < 15 );
var &domain2. numercnt denomcnt numer denom a2;
sum numer denom numercnt denomcnt;
run;

proc univariate data=cellsa2 normal ;
var a2;
run;

proc sort data=cellsa2;
by &domain2.;
run;

data adjwt2;
merge &inpt. cellsa2;
by &domain2.;
if fnstatus = 11 then adj2 = a2;
   else adj2 = 0;
adjwt2 = adj2 * adjwt1;
label adjwt2 = 'Nonrsponse adjusted weight';
KEEP MPRID fnstatus enbgsmpl adj1 adj2 adjwt1 &domain2. a2 adjwt2 ;
run;

title3 'Check for ADJWT2 Data Set';

proc freq data=adjwt2;
table &domain2.*fnstatus*adj2 / list missing;
run;

proc means data=adjwt2 n sum NOPRINT;
class fnstatus;
var adjwt2;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

proc means data=adjwt2 n sum NOPRINT;
class enbgsmpl;
var adjwt2;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

data out.adjwt2;
set adjwt2;
run;

%MEND PROCESS;

%PROCESS(Pcell_A2, merged);

title3 "Contents of adjwt2";
proc contents data=out.adjwt2;
run;

********* The End ************;
```

```
*****************************************************************************************************
***
*** Program: L:\Q4FY2009\Programs\Weighting\NewWeights\adjwtp.sas
*** Task    : 6663-300 (new Sep09)
*** Purpose: Assign the final adjusted weight for everybody in the sample
*** Inputs:   Adjwt1.sas7bdat adjwt2.sas7bdat, selectq.sas7bdat, framea.sas7bdat
*** Outputs:  Adjwtp.sas7bdat
***
*** Note: 1)Haixia Xu 12/27/2006
***       2)H. Xu on 03/29/2007 for q3fy2007 weighting
          3)Sabrina Rahman on 06/17/08 for q3fy2008 weighting (Adult)
          4)Sabrina R. on 09/26/08 for Q4fy2008 weighting (Adult)
          4)Sabrina R. on 09/16/09 for Q4fy2009 weighting (Adult)
*****************************************************************************************************
***;

options ls=132 ps=79 compress=yes nocenter FORMCHAR='|-++++++++++' formdlim='~';

%let quarter=Q4FY2009;

libname in   v8  "L:\&quarter.\Data\afinal"; /* adjwt1.sas7bdat, adjwt2.sas7bdat*/
libname inv6 v8  "L:\&quarter.\Data\afinal"; /* selectq.sas7bdat */
libname in_f v8  "L:\&quarter.\Data\afinal"; /* framea.sas7bdat */
libname out  v8  "L:\&quarter.\Data\afinal"; /* adjwtp.sas7bdat */

title1 'Program: adjwtp.sas';
title2 'Purpose: Calculate the final adjusted weight';

*****************************************************************************
* Sort the original data selectq.sd2
*****************************************************************************;

data selectq;
set inv6.selectq
(keep=BWT com_geo D_HEALTH dageqy ENBGSMPL FNSTATUS MPCSMPL
     MPRID PATCAT PCM PNLCATCD PNSEXCD SERVAFF SEXSMPL STRATUM SVCSMPL WEB TNEXREG);
format _all_;
run;

PROC SORT DATA=selectq;
BY MPRID;
RUN;

*****************************************************************************
* Sort the ADJWT1, ADJWT2, data set
*****************************************************************************;
PROC SORT DATA=in.adjwt1(keep=mprid pcell_a1 a1 adj1 adjwt1) out=adjwt1;
BY MPRID;
RUN;

PROC SORT DATA=in.adjwt2(keep=mprid pcell_a2 a2 adj2 adjwt2) out=adjwt2;
BY MPRID;
RUN;

PROC SORT DATA=in.smplA1A2(keep=mprid conus tnex_grp chcsaddr) out=smplA1A2;
BY MPRID;
RUN;

*****************************************************************************
* Append final weight variable (adjwt)
*****************************************************************************;
DATA out.adjwtp;
   MERGE selectq adjwt1 adjwt2 smplA1A2;
   BY MPRID;

   encounter=chcsaddr;
   drop chcsaddr;

*Assign a1, adj1, adjwt1 for fnstatus=32;
   if fnstatus = 32 then do;
```

```
      a1=1;
      adj1=1;
       adjwt1 = bwt*adj1;
      end;
*Assign a2, adj2, adjwt2 for fnstatus in (31, 32, 41, 42);
    if fnstatus in (31, 32, 41, 42) then do;
      if fnstatus in (31, 32) then do;
         a2=1;
         adj2=1;
      end;
      else if fnstatus in (41, 42) then do;
         a2=0;
         adj2=0;
      end;
      adjwt2=adj2*adjwt1;
    end;

adjwt = adjwt2;

RUN;


title3 'Sum of Adjwt By Final Status';

proc means data=out.adjwtp n sum NOPRINT;
class fnstatus;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 'Frame counts By enbgsmpl';
proc freq data=in_f.framea;
tables enbgsmpl/missing list;
run;

title3 'Sum of Adjwt By enbgsmpl';
proc means data=out.adjwtp n sum NOPRINT;
class enbgsmpl;
var adjwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 'Selectq.sd2 using BWT as the weight';
data selectq;
set inv6.selectq;
format _all_;
run;

proc means data=selectq n sum NOPRINT;
class fnstatus;
var bwt;
output out=print sum=sum;
run;

Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

proc means data=selectq  n sum NOPRINT;
class enbgsmpl;
var bwt;
output out=print sum=sum;
run;
```

```
Proc print data=print noobs;
sum _freq_ sum;
where _type_=1;
run;

title3 'Checks for Adjwt Dataset';

proc sort data=out.adjwtp out=chk;
by pcell_a1 pcell_a2 fnstatus;
run;

data sub_chk;
set chk(keep = com_geo stratum pcell_a1 pcell_a2 fnstatus bwt adj1 adj2 adjwt);
by pcell_a1 pcell_a2 fnstatus;
prodadjs = adj1 * adj2;
retain cellcnt sumadjwt;
if first.fnstatus then
    do;
        cellcnt = 1;
        sumadjwt = adjwt;
    end;
    else
        do;
            cellcnt = cellcnt +1;
            sumadjwt = sumadjwt + adjwt;
        end;
if last.fnstatus then output sub_chk;
run;

proc print data=sub_chk noobs;
var pcell_a1 pcell_a2 fnstatus bwt adj1 adj2 prodadjs adjwt cellcnt sumadjwt;
sum cellcnt sumadjwt;
run;

proc freq data=sub_chk noprint;
tables prodadjs/missing list out=prodadjs;
run;

proc univariate data=prodadjs normal ;
var prodadjs;
run;

title3 "Individual Level Adjwt";
proc univariate data=out.adjwtp normal ;
where fnstatus=11;
var adjwt;
run;

title3 " Checking the individuals with the largest adjwt";
proc sort data=out.adjwtp out=sorted;
by descending adjwt;
run;

data sorted;
set sorted;
prodadjs=a1*a2;
run;

proc print data=sorted (obs=200);
var stratum pcell_a1 pcell_a2 BWT fnstatus a1 adj1 adjwt1 a2 adj2 adjwt prodadjs;
run;

data OUT.adjwtp;
set OUT.adjwtp;
drop a1 a2 ;
run;

*tnexreg;
proc sort data=out.adjwtp;
by tnexreg;
run;

title3 "Distribution of weights by tnexreg";
proc means data=out.adjwtp noprint ;
```

```
where fnstatus=11;
var adjwt;
by tnexreg;
output out=out_tnex(drop=_type_ _freq_) n=n mean=mean std=stddev min=min max=max ;
run;

proc print data=out_tnex;
sum  n;
run;

title3 "Contents of OUT.adjwtp";
proc contents data=out.adjwtp;
run;


************ The End *************;
```

```
*******************************************************************************
*** Project: 2009 Health Care Survey of DoD Beneficiaries - Adult
*** Purpose: Do the poststratification
***
*** Program: L:\Q4FY2009\Programs\weighting\NewWeights\postwt.sas
*** Task   : 6663-300 (new Sep09)
*** Inputs:  framea.sas7bdat: the frame file
***          adjwtp.sas7bdat: weighted survey data
***
*** Outputs: postwt.sas7bdat: final weight data after poststratification
*** Written: 1) Haixia Xu on 12/27/2006
*** Note:       1)Do the poststratification to force weighted counts to population counts in
certain domain.
***          2)H. Xu on 03/29/2007 for q3fy2007 weighitng
***          3)Sabrina Rahman on 06/17/08 for q3fy2008  Adult Weighting
***          4)Sabrina Rahman on 09/26/2008 for Q4FY2008 Adult Weighting
***          4)Sabrina Rahman on 09/16/2009 for Q4FY2009 Adult Weighting
*******************************************************************************;

*** Set up options. ***;
options ls=132 ps=79 compress=no nocenter;* obs=10;* mprint mlogic symbolgen;

Title1 "Program: postwt.sas";
Title2 "Purpose:  Do the poststratification";

%let quarter = Q4FY2009;

*** Set up the input and output paths. ***;
libname in   v8  "L:\&quarter.\Data\AFinal"; /* adjwtp.sas7bdat */
libname inv6 v8  "L:\&quarter.\Data\AFinal"; /* framea.sas7bdat */
libname out  v8  "L:\&quarter.\Data\AFinal"; /* postwt.sas7bdat */

%include "L:\Q4FY2009\Programs\Weighting\NewWeights\calpoststr.sas";
%include "L:\Q4FY2009\Programs\Weighting\NewWeights\design_effects_unequal_weights.sas";

***Sample***;
data framea;
set inv6.framea;
length postcell $5;
postcell=group||com_geo;

/*collapse postcell groups
*************************/
/*
Note:
For 69004, we collapse this way as usual.
For 10117, see the reason below from the sampling:

From: Nancy Clusen
Sent: Thursday, November 13, 2008 12:46 PM
To: Eric Schone; Keith Rathbun
Cc: Amang Sukasih; Haixia Xu
Subject: FW: checking dmid=1350

Hello,
37th Medical Group Lackland Air Force Base DMIS ID 1350 first appears in the frame in Q2.
The facility type is Clinic, but it also is its own Parent facility.
As you can from Haixia email below, most of the beneficiaries enrolled to 1350 in Q2
were enrolled with the 59th Medical Wing-Lackland DMIS ID 117 in Q1.
Should we combine 117 and 1350 for the purposes of reporting?

From sampling:
if substr(stratumo,2,4) = '0117' then substr(stratum,2,4)='1350';
*/

/*
Q4Fy2009:
Check the small cells or too small/large ratios - or (unwtcnt<15) or (ps < 0.75) or (ps > 2)
Obs    postcell    unwtcnt       wtcnt        popcnt          ps
```

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```
     1       09001         27        30477.00      21028    0.68996
     2       09002         24        30167.09      22348    0.74081
     4       09004          1         3984.07       1212    0.30421
    38       10056         67        16521.20      11589    0.70146
    65       10100         66        30060.62      21485    0.71472
    75       10117         14        11238.35      10560    0.93964
    81       10123         72        77565.14      57733    0.74432
    94       10310         81         8152.14       5330    0.65382
    99       10385         63        20846.54      15414    0.73940
   113       10805         74        12049.42       8597    0.71348
   133       69004          8        36341.06      31263    0.86027

after collapsement below:
Obs     postcell    unwtcnt        wtcnt       popcnt        ps
    1       09001         28        34461.06      22240    0.64537
    2       09002         24        30167.09      22348    0.74081
   37       10056         67        16521.20      11589    0.70146
   64       10100         66        30060.62      21485    0.71472
   79       10123         72        77565.14      57733    0.74432
   92       10310         81         8152.14       5330    0.65382
   97       10385         63        20846.54      15414    0.73940
  111       10805         74        12049.42       8597    0.71348
*/


if postcell='09004' then postcell='09001';
else if postcell='69004' then postcell='69001';
else if postcell='10117' then postcell='11350';



/**************************/

***facility TNEX region***;
length TNEX_grp $1;
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';

***CONUS region***;
length conus $1;
if TNEX_grp ='O' then conus='0';
else if TNEX_grp in ('N', 'S', 'W') then conus='1';
run;

proc freq data=framea;
tables postcell*group*com_geo*stratum/missing list;
run;

proc sort data=framea;
by MPRID;
run;

proc sort data=in.adjwtp out=adjwt;
by MPRID;
run;

data adjwt;
merge adjwt(in=A) framea(in=B) ;
by MPRID;
if A and B;
run;

******************************************************************************
*** Do the Poststratification
******************************************************************************;
```

```
options compress=yes;
%calpoststr(smpldata=adjwt,   frmedata=framea,   domain=postcell,   preadjwt=adjwt,   psratio=ps,
postwt=postwt, outdata=OUT.postwt);

*********************************************************************************
*** Compare the weighted counts and the population counts by the domains
*********************************************************************************;
options compress=no;
%macro comparecnt(smpldata=, frmedata=, domain=, weight=);

proc freq data=&smpldata. NOPRINT;
tables &domain./missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight &weight.;
run;

proc freq data=&frmedata. NOPRINT;
tables &domain./missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by &domain.;
diff = wtcnt - popcnt;
reldiff=diff/popcnt;
if A and B;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff;
run;

proc univariate data=cnt_sf;
var diff reldiff;
run;

%mend comparecnt;

title3 'Check to see if the poststratification is done correctly';
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=postcell, weight=postwt);
title3 'Compare the weighted count and the frame count by the different domains';
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=group, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=TNEX_grp, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=PCM, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=enbgsmpl,weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=patcat, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=stratum, weight=postwt);
%comparecnt(smpldata=in.postwt, frmedata=framea, domain=com_geo, weight=postwt);


title3 'Compare the weighted count and the frame count by TNEX_grp*PCM';
proc freq data=in.postwt NOPRINT;
tables TNEX_grp*PCM/missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight postwt;
run;

proc freq data=framea NOPRINT;
tables TNEX_grp*PCM/missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf;
merge weight_s(in=A) unweight_f(in=B);
by TNEX_grp PCM;
diff = wtcnt - popcnt;
if A and B;
run;

proc print data=cnt_sf;
sum wtcnt popcnt diff;
run;

proc univariate data=cnt_sf;
var diff;
run;
```

```
*******************************************************************************
*** Compare the weighted sum before and after the poststratification
*******************************************************************************;

%macro procmeans(weightvar=, classvar=);
proc means data=OUT.postwt noprint;
class &classvar.;
var &weightvar.;
output out=out sum=/autoname;
run;

data print;
set out;
where _type_=1;
run;

title3 "weighted info by &classvar. using &weightvar. as weight";
proc print data=print;
sum _freq_  bwt_sum adjwt1_sum adjwt2_sum adjwt_sum postwt_sum;
run;
%mend procmeans;

%procmeans(weightvar= bwt adjwt1 adjwt2 adjwt postwt, classvar=fnstatus);
*%procmeans(weightvar= bwt adjwt1 adjwt2 adjwt postwt, classvar=stratum);

*******************************************************************************
*** Output the datasets
*******************************************************************************;

options compress=yes;

data out.postwt;
set out.postwt(drop=adjwt );
label  ENBGSMPL ='ENBGSMPL - Beneficiary/Enrollment Status'
       PCM = 'Primary care Manager Code';
run;

*******************************************************************************
*** Calculate the Design Effects
*******************************************************************************;

**create dataset of completes only;
data postwt_fnl;
set out.postwt;
where fnstatus=11;
run;

%design_effects_unequal_weights ( postwt_fnl, postcell,  postwt, deff_overall, deff_postcell );
%design_effects_unequal_weights ( postwt_fnl, com_geo,   postwt, deff_overall, deff_cac );
%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, postwt, deff_overall, deff_enb );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,   postwt, deff_overall, deff_tnexreg );
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, postwt, deff_overall, deff_tnexgrp );
%design_effects_unequal_weights ( postwt_fnl, conus,     postwt, deff_overall, deff_conus );
%design_effects_unequal_weights ( postwt_fnl, servaff,   postwt, deff_overall, deff_servaff );
%design_effects_unequal_weights  (  postwt_fnl,  TNEX_grp  servaff,    postwt,  deff_overall,
deff_TNEXservaff );

title3 'Design Effects Overall';
proc print data = deff_overall;
run;

*** For postcell ***;
title3 "Design Effects for postcell";
proc print data= deff_postcell;
sum _freq_;
run;

*** For geographic Area ***;
title3 "Design Effects for com_geo";
proc print data= deff_cac;
sum _freq_;
run;

*** For ENBGSMPL Groups ***;
```

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```
title3 'Design Effects for ENBGSMPL';
proc print data= deff_enb;
sum _freq_;
run;

*** For Beneficiary TNEX Region ***;
title3 'Design Effects for TNEXREG';
proc print data= deff_tnexreg;
sum _freq_;
run;

*** For Facility TNEX region ***;
title3 "Design Effects for Facility's TNEX region";
proc print data= deff_tnexgrp;
sum _freq_;
run;

*** For conus region ***;
title3 "Design Effects for conus";
proc print data= deff_conus;
sum _freq_;
run;

*** For Service Affiliation for the facility  ***;
title3 "Design Effects for Facility's Service Affiliation";
proc print data= deff_servaff;
sum _freq_;
run;

*** For TNEX_grp*Servaff ***;
title3 "Design Effects for TNEX_grp by Servaff";
proc print data= deff_TNEXservaff;
sum _freq_;
run;

title3 "Contents of OUT.postwt";
proc contents data=OUT.postwt;
run;


********** The end **********;

/*
data test;
set out.postwt;
run;
proc freq data=test;
table postwt*stratum/list missing;
where stratum='3900107';
run;
proc freq data=test;
tables postwt/list missing;
run;
*/

Title3 'Proc Means of Postwt:';
Proc means data=out.postwt;
var Postwt;
run;
```

F.11.B   Q4FY2009\PROGRAMS\WEIGHTING\NEWWEIGHTS\CALPOSTSTR.SAS - INCLUDE FILE FOR POSTWT.SAS.

```
***************************************************************
* Macro to do the poststrification
***************************************************************;
%macro calpoststr(smpldata=, frmedata=, domain=, preadjwt=, psratio=, postwt=, outdata=);

proc freq data=&smpldata. NOPRINT;
where fnstatus in (11, 31, 32);
tables &domain./missing list out=unweight_s(rename=(count=unwtcnt) drop=percent);
run;

proc freq data=&smpldata. NOPRINT;
tables &domain./missing list out=weight_s(rename=(count=wtcnt) drop=percent);
weight &preadjwt.;
run;

proc freq data=&frmedata. NOPRINT;
tables &domain./missing list out=unweight_f(rename=(count=popcnt) drop=percent);
run;

data cnt_sf out.only_f_calpoststr;
merge unweight_s(in=A)  weight_s(in=B) unweight_f(in=C);
by &domain.;
if A and B and C then do;
  &psratio.=popcnt/wtcnt;
  label &psratio.="poststratification ratio";
  output cnt_sf;
end;
else if C and NOT A then output out.only_f_calpoststr;
run;

title3 "Check the calculation of poststratification ratio";
proc print data=cnt_sf;
sum unwtcnt wtcnt popcnt;
run;

title3 "Univariate of poststratification ratio";
proc univariate data=cnt_sf;
var &psratio.;
run;

title3 "Check the small cells or too small/large ratios - or (unwtcnt<15) or (&psratio. < 0.75)
or (&psratio. > 2)";
proc print data=cnt_sf;
where (&psratio. > 2) or (&psratio. < 0.75) or (unwtcnt <15);
run;

*Append cnt_sf back to the adjusted weight data;
proc sort data=&smpldata.;
by &domain.;
run;

data &outdata.;
merge &smpldata. cnt_sf;
by &domain.;
run;

data &outdata.;
set &outdata.;
if fnstatus in (11, 31, 32) then &psratio.=&psratio.;
else if fnstatus in (12, 20, 41, 42) then &psratio.=0;
&postwt. = &preadjwt.*&psratio.;
run;

title3 "check the calculation of final weight";
proc print data=&outdata.(obs=200);
var &domain. fnstatus &preadjwt. &psratio. &postwt.;
run;

title3 "Univariate of final weight";
proc univariate data=&outdata.;
var &postwt.;
where fnstatus=11;
```

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```
run;
%mend calpoststr;
```

```
******************************************************************************
* PROGRAM: Q4FY2009\Programs\Weighting\NewWeights\Repwtp.SAS
* TASK:    2009 DOD QUARTERLY HEALTH CARE SURVEY (6663-300)
* PURPOSE: CALCULATE REPLICATE WEIGHTS FOR DOD SURVEY USING THE NEW WEIGHTING METHOD.
* WRITTEN: 12/30/1999 BY Keith Ranthbun
* Modified By Haixia Xu on 12/27/2006
*
* INPUTS:  Postwt.sas7bdat - Final Weights file
*          Framea.sas7bdat
*
* OUTPUTS: Repwtp.sas7bdat - Replicate Weights File
*
******************************************************************************;

%let quarter = Q4FY2009;

LIBNAME INv6  v8 "L:\&quarter.\Data\Afinal";  /* Framea.sas7bdat */
LIBNAME IN    v8 "L:\&quarter.\Data\Afinal";  /* Postwt.sas7bdat */
LIBNAME OUT   v8 "L:\&quarter.\Data\Afinal";  /* Repwtp.sas7bdat */

OPTIONS PS=79 LS=132 errors=10 COMPRESS=no NOCENTER formdlim='~' /*mlogic mprint symbolgen*/
obs=max;


%MACRO PROCESS(DOMAIN1,DOMAIN2,DOMAIN3,reps);

******************************************************************************
* calculate the population counts to be used in the poststratification
******************************************************************************;

data framea;
set inv6.framea;
length POSTCELL $5;
POSTCELL=group||com_geo;

/*collapse postcell groups*/ /*Q4Fy2009*/
if postcell='09004'      then postcell='09001';
else if postcell='69004' then postcell='69001';
else if postcell='10117' then postcell='11350';
run;

proc freq data=framea NOPRINT;
tables &domain3./missing list out=framecnt(drop=percent rename=(count=popcnt));
run;


******************************************************************************
* Sort the final weights file by user-specified domains
******************************************************************************;

PROC  SORT  DATA=IN.postwt(KEEP=FNSTATUS MPRID BWT &DOMAIN1. &DOMAIN2. &domain3. stratum )
OUT=postwt;
    BY stratum MPRID ;
RUN;


******************************************************************************
* Append SUBSET index (I) to each observation
******************************************************************************;
DATA SUBSETS;
   SET postwt;
   BY stratum MPRID;

   IF _N_ = 1 OR MOD(_N_-1,&reps.) = 0 THEN SUBSET = 1;
   ELSE SUBSET + 1;

   RETAIN SUBSET;
   BBWT = BWT * (&reps. / (&reps. - 1));
RUN;
```

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```
****************************************************************************
****************************************************************************
* Generate JackKnife/replicated weights adjwt01-adjwt60
****************************************************************************
****************************************************************************;
%DO I = 1 %TO &reps.;

DATA SUBSET;
   SET SUBSETS;
   IF &I. = SUBSET THEN DELETE; *Remove the current subset;
RUN;

*******************************************************************************
* Calculate adjustment factor A1 for each cell
*******************************************************************************;

proc sort data=subset;
by &domain1.;
run;

*******************************************************************************
* Calculate adjustment factor A1 for each cell.
* This is the Eligibility Determination adjustment.
*******************************************************************************;
DATA CELLSA1  (KEEP=SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 &domain1. )
     MPRIDSA1 (KEEP=MPRID FNSTATUS BBWT &DOMAIN1. &DOMAIN2. &domain3. )
     ;
   SET subset;
   BY &DOMAIN1.;

if FNSTATUS in (11, 12, 20, 31, 41, 42) THEN DO;

   IF FIRST.&DOMAIN1. THEN DO;
      CELLCNT = 0;
      cntg1   = 0;
      cntg2   = 0;
      cntg3   = 0;
      SUMBBWT  = 0.0;
      SUMG1   = 0.0;
      SUMG2   = 0.0;
      SUMG3   = 0.0;
      A1 = 0.0;
   END;
   CELLCNT + 1;

   ***************************************************
   * Accumulate total weight sum
   ***************************************************;

   SUMBBWT + BBWT;

   ***************************************************
   * Accumulate group 1 weight sum
   ***************************************************;

   IF FNSTATUS IN (11,12) THEN
      do;
         SUMG1 + BBWT;
         cntg1 + 1;
      end;

   ***************************************************
   * Accumulate group 2 weight sum
   ***************************************************;

   ELSE IF FNSTATUS in (20,31) THEN
      do;
         SUMG2 + BBWT;
         cntg2 + 1;
      end;

   ***************************************************
   * Accumulate group 3 weight sum
   ***************************************************;
```

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```
    ELSE IF FNSTATUS in (41,42) THEN
        do;
            SUMG3 + BBWT;
            cntg3 + 1;
        end;

    RETAIN SUMBBWT SUMG1-SUMG3 A1 CELLCNT cntg1-cntg3 MPRID;

    IF LAST.&DOMAIN1. THEN DO;
        A1 = (SUMG1 + SUMG2 + SUMG3)/(SUMG1 + SUMG2);
        OUTPUT CELLSA1;
    END;
END;

    OUTPUT MPRIDSA1;
RUN;

proc sort data=mpridsa1;
by &domain1.;
run;

proc sort data=cellsa1;
by &domain1.;
run;

data adj_one;
merge mpridsa1 cellsa1;
by &domain1.;
if fnstatus in (11,12,20,31) then adj1 = a1;
    else if fnstatus = 32 then adj1=1;
    else adj1 = 0;
adj_wt1 = adj1 * bbwt;
run;

*****************************************************************************
* Calculate adjustment factor A2 for each cell.
* This is the Nonresponse adjustment and creates the final weight (adjwt).
*****************************************************************************;

proc sort data=adj_one;
by &domain2.;
run;

DATA CELLSA2 (KEEP= &domain2. NUMER DENOM numercnt denomcnt A2);
    set adj_one;
    BY &domain2.;

IF FNSTATUS in (11, 12, 20) THEN DO;

    IF FIRST.&domain2. THEN DO;
        A2 = 0.0;
        NUMER = 0.0;
        DENOM = 0.0;
        numercnt = 0;
        denomcnt = 0;
    END;


    RETAIN NUMER DENOM A2 numercnt denomcnt;

    IF FNSTATUS IN (11,12,20) THEN
        do;
            NUMER + adj_wt1;
            numercnt + 1;
        end;

    IF FNSTATUS = 11 THEN
        do;
            DENOM + adj_wt1;
            denomcnt + 1;
        end;

    IF LAST.&domain2. THEN DO;
```

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```
      A2 = NUMER/DENOM;
      OUTPUT CELLSA2;
   END;
END;

RUN;

proc sort data=adj_one;
by &domain2.;
run;

proc sort data=cellsa2;
by &domain2.;
run;

data adj_two;
merge adj_one cellsa2;
by &domain2.;
if fnstatus = 11 then adj2 = a2;
   else if fnstatus in (31, 32) then adj2 = 1;
   else adj2 = 0;
adj_wt2 = adj2 * adj_wt1;
KEEP MPRID FNSTATUS adj_wt2 bbwt &DOMAIN1. &DOMAIN2. &domain3.;
run;

****************************************************************************
* Calculate poststratification adjustment factor ps for each cell.
****************************************************************************;
proc freq data=adj_two NOPRINT;
tables &domain3./missing list out=weighted(drop=percent rename=(count=wtcnt));
weight adj_wt2;
run;

proc sort data=framecnt;
by &domain3.;
run;

proc sort data=weighted;
by &domain3.;
run;

data ps;
merge framecnt(in=A) weighted(in=B);
by &domain3.;
ps = popcnt/wtcnt;
if A and B;
run;

proc sort data=ps;
by &domain3.;
run;

proc sort data=adj_two;
by &domain3.;
run;

data subset&i.;
merge adj_two ps;
by &domain3.;
jkweight = ps * adj_wt2;
subset = &i.;
KEEP MPRID subset jkweight;
run;

proc sort data=subset&i.;
by mprid;
run;

****************************************************************************
****************************************************************************
* End of JackKnife/replicated weights WRWT01-WRWT60 assignments
****************************************************************************
****************************************************************************;
%END;
```

```
****************************************************************************
* Combine all of the JackKnife weight subsets by MPRID
****************************************************************************;
DATA ALLSETS;
    SET SUBSET1    SUBSET2    SUBSET3    SUBSET4    SUBSET5
        SUBSET6    SUBSET7    SUBSET8    SUBSET9    SUBSET10
        SUBSET11   SUBSET12   SUBSET13   SUBSET14   SUBSET15
        SUBSET16   SUBSET17   SUBSET18   SUBSET19   SUBSET20
        SUBSET21   SUBSET22   SUBSET23   SUBSET24   SUBSET25
        SUBSET26   SUBSET27   SUBSET28   SUBSET29   SUBSET30
        SUBSET31   SUBSET32   SUBSET33   SUBSET34   SUBSET35
        SUBSET36   SUBSET37   SUBSET38   SUBSET39   SUBSET40
        SUBSET41   SUBSET42   SUBSET43   SUBSET44   SUBSET45
        SUBSET46   SUBSET47   SUBSET48   SUBSET49   SUBSET50
        SUBSET51   SUBSET52   SUBSET53   SUBSET54   SUBSET55
        SUBSET56   SUBSET57   SUBSET58   SUBSET59   SUBSET60
    ;
        BY MPRID;
     ARRAY JKWT(&reps.) wrwt1-wrwt&reps.; RETAIN wrwt1-wrwt&reps.;
        IF FIRST.MPRID THEN DO;
        DO I = 1 TO &reps.; DROP I;
            JKWT(I) = . ;
        END;
 END;
   JKWT(SUBSET) = JKWEIGHT;
   IF LAST.MPRID THEN OUTPUT;
   KEEP MPRID SUBSET wrwt1-wrwt&reps.;
RUN;


****************************************************************************
* Sort the original data, get the final weight (WRWT), append the
* JackKnife/Replicated weights (WRWT1-WRWT60), and label variables.
****************************************************************************;
PROC SORT DATA=IN.postwt OUT=postwt;
BY MPRID;
RUN;

proc sort data=allsets;
by mprid;
run;

options compress=yes;

DATA OUT.repwtp ;
   MERGE postwt ALLSETS;
   BY MPRID;

   LABEL
      MPRID  = 'MPR ID Number'
      WRWT1  = 'Replicated/JackKnife Weight 1'
      WRWT2  = 'Replicated/JackKnife Weight 2'
      WRWT3  = 'Replicated/JackKnife Weight 3'
      WRWT4  = 'Replicated/JackKnife Weight 4'
      WRWT5  = 'Replicated/JackKnife Weight 5'
      WRWT6  = 'Replicated/JackKnife Weight 6'
      WRWT7  = 'Replicated/JackKnife Weight 7'
      WRWT8  = 'Replicated/JackKnife Weight 8'
      WRWT9  = 'Replicated/JackKnife Weight 9'
      WRWT10 = 'Replicated/JackKnife Weight 10'
      WRWT11 = 'Replicated/JackKnife Weight 11'
      WRWT12 = 'Replicated/JackKnife Weight 12'
      WRWT13 = 'Replicated/JackKnife Weight 13'
      WRWT14 = 'Replicated/JackKnife Weight 14'
      WRWT15 = 'Replicated/JackKnife Weight 15'
      WRWT16 = 'Replicated/JackKnife Weight 16'
      WRWT17 = 'Replicated/JackKnife Weight 17'
      WRWT18 = 'Replicated/JackKnife Weight 18'
      WRWT19 = 'Replicated/JackKnife Weight 19'
      WRWT20 = 'Replicated/JackKnife Weight 20'
      WRWT21 = 'Replicated/JackKnife Weight 21'
      WRWT22 = 'Replicated/JackKnife Weight 22'
      WRWT23 = 'Replicated/JackKnife Weight 23'
```

```
        WRWT24 = 'Replicated/JackKnife Weight 24'
        WRWT25 = 'Replicated/JackKnife Weight 25'
        WRWT26 = 'Replicated/JackKnife Weight 26'
        WRWT27 = 'Replicated/JackKnife Weight 27'
        WRWT28 = 'Replicated/JackKnife Weight 28'
        WRWT29 = 'Replicated/JackKnife Weight 29'
        WRWT30 = 'Replicated/JackKnife Weight 30'
        WRWT31 = 'Replicated/JackKnife Weight 31'
        WRWT32 = 'Replicated/JackKnife Weight 32'
        WRWT33 = 'Replicated/JackKnife Weight 33'
        WRWT34 = 'Replicated/JackKnife Weight 34'
        WRWT35 = 'Replicated/JackKnife Weight 35'
        WRWT36 = 'Replicated/JackKnife Weight 36'
        WRWT37 = 'Replicated/JackKnife Weight 37'
        WRWT38 = 'Replicated/JackKnife Weight 38'
        WRWT39 = 'Replicated/JackKnife Weight 39'
        WRWT40 = 'Replicated/JackKnife Weight 40'
        WRWT41 = 'Replicated/JackKnife Weight 41'
        WRWT42 = 'Replicated/JackKnife Weight 42'
        WRWT43 = 'Replicated/JackKnife Weight 43'
        WRWT44 = 'Replicated/JackKnife Weight 44'
        WRWT45 = 'Replicated/JackKnife Weight 45'
        WRWT46 = 'Replicated/JackKnife Weight 46'
        WRWT47 = 'Replicated/JackKnife Weight 47'
        WRWT48 = 'Replicated/JackKnife Weight 48'
        WRWT49 = 'Replicated/JackKnife Weight 49'
        WRWT50 = 'Replicated/JackKnife Weight 50'
        WRWT51 = 'Replicated/JackKnife Weight 51'
        WRWT52 = 'Replicated/JackKnife Weight 52'
        WRWT53 = 'Replicated/JackKnife Weight 53'
        WRWT54 = 'Replicated/JackKnife Weight 54'
        WRWT55 = 'Replicated/JackKnife Weight 55'
        WRWT56 = 'Replicated/JackKnife Weight 56'
        WRWT57 = 'Replicated/JackKnife Weight 57'
        WRWT58 = 'Replicated/JackKnife Weight 58'
        WRWT59 = 'Replicated/JackKnife Weight 59'
        WRWT60 = 'Replicated/JackKnife Weight 60'
       ;
RUN;

TITLE1 "2005 DoD Quarterly Health Survey Final/Replicated Weights";
title2 "Checks for the Replicate Weights";
TITLE3 "Program Name: repwtp.SAS";

*****************************************************
Check the structure of the data set OUT.repwtp;
****************************************************;

proc sort data=OUT.repwtp out=sorted;
by stratum mprid;
run;

proc print data=sorted (obs=500);
var stratum mprid SUBSET fnstatus postwt wrwt1-wrwt5;
run;

PROC MEANS DATA=OUT.repwtp n sum;
VAR   postwt WRWT1-WRWT&reps.;
RUN;

PROC SORT DATA=OUT.repwtp out=repwtp;
BY MPRID;
RUN;

DATA OUT.repwtp;
   SET repwtp;
   BY MPRID;

   ARRAY WGTS(&reps.) WRWT1-WRWT&reps.;
   DO I = 1 TO &reps.; DROP I;
      IF WGTS(I) EQ . THEN WGTS(I) = 0;
   END;

   KEEP MPRID BWT postwt WRWT1-WRWT&reps. fnstatus &domain1. &domain2. &domain3. com_geo;
```

```
RUN;

title4 "Check the replicate weights -- for all 50,000 cases";
PROC MEANS DATA=OUT.repwtp n sum;
VAR  postwt wrwt1-wrwt&reps.;
output out=sums sum(postwt wrwt1-wrwt&reps.) = postwt wrwt1-wrwt&reps.;
RUN;

proc transpose data=sums out=t_sums;
var postwt wrwt1-wrwt&reps.;
run;

proc univariate data=t_sums normal ;
var col1;
run;

title4 "Check the replicate weights -- for the final completes";
PROC MEANS DATA=OUT.repwtp n sum;
where fnstatus=11;
VAR  postwt wrwt1-wrwt&reps.;
output out=sums sum(postwt wrwt1-wrwt&reps.) = postwt wrwt1-wrwt&reps.;
RUN;

proc transpose data=sums out=t_sums;
var postwt wrwt1-wrwt&reps.;
run;

proc univariate data=t_sums normal ;
var col1;
run;


**added for Amang q4 2002;
data repwt2;
  set out.repwtp;
  where fnstatus = 11;
  array subset2(60) wrwt1-wrwt60;
  do m=1 to 60;
     if subset2(m)=0 then
          subset=m;
  end;
run;

proc sort data = repwt2;
by subset;
run;

proc means data = repwt2 noprint;
by subset;
var postwt wrwt1-wrwt60;
output out = amang sum= / autoname;
run;

***added by Haixia on 05/11/2005 for q1, 2005 weighting.
rename wrwt1_sum, ..., wrwt60_sum as sum_wrwt1, ..., sum_wrwt60
so the numbered range list sum_wrwt1 - sum_wrwt60 can be used in the proc print below;

data amang;
set amang;
rename postwt_sum = sum_postwt;
%do i =1 %to 60;
rename wrwt&i._sum = sum_wrwt&i.;
%end;
run;

proc print data = amang;
sum _freq_ sum_postwt  sum_wrwt1 - sum_wrwt60;
run;

*****************************************************************************
* CREATE FINAL REPWT DATASET FOR KEITH -- Rename the variables
*****************************************************************************;
data out.repwtp (drop = postwt com_geo);
set in.repwtp;
```

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```
FWRWT = postwt;
%do i =1 %to 60;
rename wrwt&i.= FWRWT&i.;
%end;
label &domain1. = 'Weighting cell in the unknown eligibility adjustment';
label &domain2. = 'Weighting cell in the nonresponse adjustment';
label &domain3. = "ps cell for new wts - for all 4 quarters";
label fwrwt = "Final NEW Weight";
run;

data out.repwtp;
set out.repwtp;
* Label wts;
    %DO I = 1 %TO 60;
        LABEL    FWRWT&I. = "Replicated/JackKnife NEW Weight &I.";
    %END;
run;

PROC CONTENTS DATA=OUT.repwtp;
run;

%MEND process;

%PROCESS(pcell_a1, pcell_a2, postcell, 60);
```

```
********************************************************************************
*
* PROGRAM:   ADDWGTSA.SAS
* TASK:      DOD HEALTH CARE SURVEY ANALYSIS (6401-903)
* PURPOSE:   MERGE THE FINAL WEIGHTS FILE WITH THE FINAL
*            QUESTIONNAIRE/SAMPLE FILE
*
* WRITTEN:   02/02/2001 BY KEITH RATHBUN
*
* INPUTS:    1) REPWTP.sas7bdat - Final/Replicated Weights file - FORM A
*            2) MERGEQ.sas7bdat - Final FORM A Questionnaire/Sample File
*
* OUTPUTS:   1) HCSyyq_n.sas7bdat - Final FORM A Questionnaire/Sample File
*               combined with Final/Replicated Weights file - FORM A
*               where  yy = Year
*                       q = Quarter Number
*                       n = Final Dataset Suffix/Version Number
*            2) HCSyyq_v.XPT - Final Public-Use Adult SAS XPORT Dataset
*            3) HCSyyq_v.SAV - Final Public-Use Adult SPSS Dataset
*            4) HCSyyq_v.DTA - Final Public-Use Adult STATA Dataset
*
* MODIFIED:  1) 4/23/2002 - DKB added DROP statement to drop the permanent
*               random number variable (PRN) that does not need to be on the
*               final data file sent to DoD
*            2) 4/17/2003 - JA added length statement to order variables from
*               weight file.  The variable TREATU_R is positioned after the
*               replicate weights.
*            3) 2/17/2005 - JA dropped CACSMPL from repwt because it has been
*               added to mergeq.sd2 in the mergeq.sas program. This is because
*               in Q4, CACSMPL had to be updated for reporting purposes.
*            4) 5/13/2005 - JA kept only necessary variables from the weight
*               weight file.
*            5) 12/27/2005 - JA merged new/adjusted weights and old weights
*            6) 5/22/2006 - JA added xcatch to the dataset
*            7) 1/17/2008 - Keith Rathbun added creation of DTA, SAV and
*               XPT versions of the final dataset.
*
********************************************************************************;
LIBNAME IN      "..\..\DATA\AFINAL";
LIBNAME OUT     "..\..\DATA\AFINAL";
LIBNAME LIBRARY "..\..\DATA\AFINAL\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER MPRINT MLOGIC;

%MACRO PROCESS(DSNI_1=, DSNI_2=, DSNO=);
********************************************************************************
* Merge the final weights file with the final Questionnaire/Sample file
********************************************************************************;
PROC SORT DATA=IN.&DSNI_1 OUT=&DSNI_1; BY MPRID; RUN;
PROC SORT DATA=IN.&DSNI_2 OUT=&DSNI_2; BY MPRID; RUN;

PROC CONTENTS DATA=IN.&DSNI_1; Title 'repwtp- New weights'; RUN;
PROC CONTENTS DATA=IN.&DSNI_2; Title 'mergeq'; RUN;

********************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TMPXCTCH with XCATCH is created by this include file.
********************************************************************************;
DATA TEMP1;
   SET &DSNI_2;
   IF FNSTATUS = 11;
RUN;

%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;

PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;

DATA OUT.&DSNO(DROP=PRN DMIS_ID D_PAR /*ENRID*/);
*DATA OUT.&DSNO(DROP=PRN XCATCHno);
   MERGE &DSNI_2(IN=IN2 DROP=MIQCNTL COM_GEO)
```

```
              TMPXCTCH(IN=IN3)
             &DSNI_1(IN=IN1 KEEP=MPRID POSTCELL FWRWT FWRWT1--FWRWT60
                          RENAME=(fwrwt=FWRWT  postcell=POSTCELL
                                   fwrwt1=FWRWT1    fwrwt2=FWRWT2    fwrwt3=FWRWT3    fwrwt4=FWRWT4
fwrwt5=FWRWT5
                                   fwrwt6=FWRWT6    fwrwt7=FWRWT7    fwrwt8=FWRWT8    fwrwt9=FWRWT9
fwrwt10=FWRWT10
                                   fwrwt11=FWRWT11 fwrwt12=FWRWT12 fwrwt13=FWRWT13 fwrwt14=FWRWT14
fwrwt15=FWRWT15
                                   fwrwt16=FWRWT16 fwrwt17=FWRWT17 fwrwt18=FWRWT18 fwrwt19=FWRWT19
fwrwt20=FWRWT20
                                   fwrwt21=FWRWT21 fwrwt22=FWRWT22 fwrwt23=FWRWT23 fwrwt24=FWRWT24
fwrwt25=FWRWT25
                                   fwrwt26=FWRWT26 fwrwt27=FWRWT27 fwrwt28=FWRWT28 fwrwt29=FWRWT29
fwrwt30=FWRWT30
                                   fwrwt31=FWRWT31 fwrwt32=FWRWT32 fwrwt33=FWRWT33 fwrwt34=FWRWT34
fwrwt35=FWRWT35
                                   fwrwt36=FWRWT36 fwrwt37=FWRWT37 fwrwt38=FWRWT38 fwrwt39=FWRWT39
fwrwt40=FWRWT40
                                   fwrwt41=FWRWT41 fwrwt42=FWRWT42 fwrwt43=FWRWT43 fwrwt44=FWRWT44
fwrwt45=FWRWT45
                                   fwrwt46=FWRWT46 fwrwt47=FWRWT47 fwrwt48=FWRWT48 fwrwt49=FWRWT49
fwrwt50=FWRWT50
                                   fwrwt51=FWRWT51 fwrwt52=FWRWT52 fwrwt53=FWRWT53 fwrwt54=FWRWT54
fwrwt55=FWRWT55
                                   fwrwt56=FWRWT56 fwrwt57=FWRWT57 fwrwt58=FWRWT58 fwrwt59=FWRWT59
fwrwt60=FWRWT60
                ));
   BY MPRID;
   IF FNSTATUS = 11;

   IF XCATCH = 1350 THEN XCATCH = 117; /* MER 11/14/08 Map new Lackland catchment
                                     area to old one */

   IF NOT (IN1 AND IN2)
   THEN PUT "ERROR: NO MATCHING MPRID WITH &DSNI_1..sas7bdat AND &DSNI_2..sas7bdat";

   IF IN1 AND IN2 AND IN3;
RUN;


TITLE1 "DOD Quarterly Health Care Survey (6663-300)";
TITLE2 "Program Name: ADDWGTSA.SAS";
TITLE3 "Program Inputs: &DSNI_1..sas7bdat -- &DSNI_2..sas7bdat";
TITLE4 "Program Outputs: &DSNO..sas7bdat/XPT/SAV/DTA";
PROC CONTENTS; RUN;
/*
*****************************************************************************
* Define and generate SAS Transport file.
*****************************************************************************;
LIBNAME KEITH XPORT "..\..\data\afinal\&DSNO..XPT";
PROC COPY IN=OUT OUT=KEITH; * Converts input file to transport file;
         SELECT &DSNO;     * Selects sas7bdat file to copy;
RUN;

*****************************************************************************
* Generate Dataset in STATA format.
*****************************************************************************;
PROC EXPORT
   DATA = OUT.&DSNO
   OUTFILE = "..\..\DATA\AFINAL\&DSNO..DTA"
   DBMS = DTA
   REPLACE;
RUN;

*****************************************************************************
* Generate Dataset in SPSS format.
*****************************************************************************;
PROC EXPORT
   DATA = OUT.&DSNO
   OUTFILE = "..\..\DATA\AFINAL\&DSNO..SAV"
   DBMS = SAV
   REPLACE;
RUN;
```

```
*/
%MEND PROCESS;

%PROCESS(DSNI_1=REPWTP, DSNI_2=MERGEQ, DSNO=HCS094_1);
```

```
*****************************************************************************
*
*  PROGRAM:  COMB2009.SAS
*  TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS (6244-300)
*  PURPOSE: Combine quarterly datasets into one annual file.
*
*  WRITTEN: 12/23/2002 BY KEITH RATHBUN.
*
*   INPUTS: 1) HCSyyq_1.SD2 - Q1-Q4 DOD HCS Analysis files
*                 Where yy = Year (09)
*                       q = Quarter Number (1-4)
*
*  MODIFIED: 1) September 17, 2009 by Emma Ernst for 2009 database
*
*   OUTPUT:  1) COMB2009SD2 - Combined quarterly datasets in one annual file
*
*    NOTES:  1) The output dataset produced by this program contains all
*               of the original quarterly responses plus additional
*               responses that "trickled" in after the end of the
*               fielding period. The variable called QUARTER can be used
*               to identify which version of the quarterly survey is
*               applicable to the respondent.
*
*  INCLUDES: 1) XCATCH.INC - Create catchment reporting variable
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;
LIBNAME INQ1  v9   "..\..\..\Q1FY2009T\DATA\AFINAL";
LIBNAME INQ2       "..\..\..\Q2FY2009T\DATA\AFINAL";
LIBNAME INQ3       "..\..\..\Q3FY2009T\DATA\AFINAL";
LIBNAME INQ4       "..\..\..\Q4FY2009\DATA\AFINAL";
LIBNAME OUT        "..\..\DATA";
LIBNAME LIBRARY    "..\..\Data\fmtlib";
OPTIONS COMPRESS=YES LS=132 PS=79 NOCENTER NOFMTERR;

*****************************************************************************
* Extract variable names for each quarter for overlap checking purposes.
*****************************************************************************;
PROC CONTENTS DATA=INQ1.HCS091_1 OUT=Q1(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

PROC CONTENTS DATA=INQ2.HCS092_1 OUT=Q2(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

PROC CONTENTS DATA=INQ3.HCS093_1 OUT=Q3(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

PROC CONTENTS DATA=INQ4.HCS094_1 OUT=Q4(KEEP=NAME) NOPRINT; RUN;
PROC SORT; BY NAME; RUN;

DATA VARIABLES;
   MERGE Q1(IN=INQ1) Q2(IN=INQ2) Q3(IN=INQ3) Q4(IN=INQ4);
   BY NAME;
   LENGTH Q1-Q4 $3;
   IF INQ1 THEN Q1 = "YES"; ELSE Q1 = "NO";
   IF INQ2 THEN Q2 = "YES"; ELSE Q2 = "NO";
   IF INQ3 THEN Q3 = "YES"; ELSE Q3 = "NO";
   IF INQ4 THEN Q4 = "YES"; ELSE Q4 = "NO";
RUN;

TITLE1 "Annual DOD Health Care Survey Database (6244-300)";
TITLE2 "Program Name: COMB2009.SAS By Keith Rathbun";
TITLE3 "Program Inputs: HCSyyq_1.SD2 - Q1-Q4 DOD HCS Sample and Analysis files";
TITLE4 "Program Output: COMB2009SD2 - Combined quarterly datasets in one annual file";

*****************************************************************************
* Print summary of variable name quarterly overlap.
*****************************************************************************;
PROC PRINT; RUN;
```

```
*****************************************************************************
* Combine quarterly datasets with all of the "trickle" data into one file.
*****************************************************************************;
DATA COMB2009(DROP= XCATCH /* Xcatch will be recreated based on annual counts */);
    SET INQ1.HCS091_1
        INQ2.HCS092_1
        INQ3.HCS093_1
        INQ4.HCS094_1;
    BY MPRID;
    LABEL FIELDAGE = "Age at start of fielding period"
          DAGEQY   = "Age at time of data collection"
          ;
RUN;

*****************************************************************************
* Sort by MPRID and check for duplicates.  There should not be duplicates.
*****************************************************************************;
PROC SORT DATA=COMB2009 NODUPKEY OUT=TEMP1; BY MPRID; RUN;

*****************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TEMP with XCATCH is created by this include file.
*****************************************************************************;
%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;
PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;


DATA OUT.COMB2009
     HCS091_1x(KEEP=MPRID XCATCH) HCS092_1x(KEEP=MPRID XCATCH)
     HCS093_1x(KEEP=MPRID XCATCH) HCS094_1x(KEEP=MPRID XCATCH) ;

    MERGE TEMP1(IN=IN1 DROP=ENRID) TMPXCTCH(IN=IN2);
    BY MPRID;
    IF IN1 AND IN2 THEN DO;
       IF XCATCH = 1350 THEN XCATCH = 117; /* MER 11/15/08 Map new Lackland catchment
                                              area to old one */
       OUTPUT OUT.COMB2009;
       IF QUARTER="Q1FY2009" THEN OUTPUT HCS091_1x;
       IF QUARTER="Q2FY2009" THEN OUTPUT HCS092_1x;
       IF QUARTER="Q3FY2009" THEN OUTPUT HCS093_1x;
       IF QUARTER="Q4FY2009" THEN OUTPUT HCS094_1x;
    END;
RUN;

DATA INQ1.HCS091_1(DROP=ENRID);
    UPDATE INQ1.HCS091_1 HCS091_1x;
    BY MPRID;
RUN;

DATA INQ2.HCS092_1(DROP=ENRID);
    UPDATE INQ2.HCS092_1 HCS092_1x;
    BY MPRID;
RUN;

DATA INQ3.HCS093_1(DROP=ENRID);
    UPDATE INQ3.HCS093_1 HCS093_1x;
    BY MPRID;
RUN;

DATA INQ4.HCS094_1(DROP=ENRID);
    UPDATE INQ4.HCS094_1 HCS094_1x;
    BY MPRID;
RUN;


PROC CONTENTS; RUN;
```

F.15 WEIGHTING\ADDWGTS.SAS - MERGE THE COMBINED ANNUAL WEIGHTS WITH THE FINAL QUESTIONNAIRE/SAMPLE FILE - ANNUAL.

```
******************************************************************************
*
* PROGRAM:  ADDWGTS.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (6244-300)
* PURPOSE:  MERGE THE FINAL WEIGHTS FILE WITH THE FINAL
*           QUESTIONNAIRE/SAMPLE FILE
*
* WRITTEN:  02/02/2001 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/15/2002 BY KEITH RATHBUN: Updated to combine all quarterly
*              datasets including trickles with the annual weights file.
*           2) 12/30/2002 BY KEITH RATHBUN: Updated for 2002 survey.
*           3) 01/20/2004 BY LUCY LU: Updated for 2003 survey.
*           4) 02/10/2004 BY KEITH RATHBUN: Added catchment reporting variable
*              (XCATCH) constructed in STEP1Q.
*           5) 03/03/05 BY LUCY LU: Updateed for 2004 annual survey.
*              -- Create macro variables and eliminate macro program,
*              -- update the length statement for year 2004.
*           6) 01/04/2006 BY KEITH RATHBUN: Updated for 2005 survey.
*           7) 09/18/2007 BY LUCY LU: Updated for 2007 survey.
*              8) 09/17/2009 BY Emma Ernst: Updated for 2009 survey.
*
* INPUTS:   1) CREPWT.SD2  - Final/Replicated Weights file - FORM A
*           2) COMB2009.SD2 - Combined Q1-Q4 FORM A Questionnaire/Sample File
*
* OUTPUTS:  1) HCSyyA_n.SD2 - Final FORM A Questionnaire/Sample File
*              combined with Final/Replicated Weights file - FORM A
*              where  yy = Year
*                      A = Form A - Annual
*                      n = Final Dataset Suffix/Version Number
*
* NOTES:    1) This program combines all of the quarterly input datasets
*              including trickles with the annual weights file.
*
******************************************************************************;
LIBNAME OUT          "..\..\DATA";
LIBNAME OUT_V6  V612 "..\..\DATA";
LIBNAME LIBRARY "..\..\Data\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER NOFMTERR;

%LET DSNI_1 = CREPWT;
%LET DSNI_2 = COMB2009;
%LET DSNO   = HCS09A_1;


******************************************************************************
* Merge the final weights file with the final Questionnaire/Sample file
******************************************************************************;
PROC SORT DATA=OUT.&DSNI_1 OUT=&DSNI_1; WHERE FNSTATUS EQ 11; BY MPRID; RUN;
PROC SORT DATA=OUT.&DSNI_2 OUT=&DSNI_2; BY MPRID; RUN;

DATA &DSNO(DROP= DRP_RND1  /* jma Oct 24 2008 */
         );

  MERGE &DSNI_2(IN=IN2 )
        &DSNI_1(IN=IN1 KEEP=MPRID CFW CFW_V3 CFW_V4  CFW1-CFW240 CFWV4_1-CFWV4_240 CFWV3_1-
CFWV3_120
         RENAME=(
      CFWV4_1   = CFW4_1
      CFWV4_2   = CFW4_2
      CFWV4_3   = CFW4_3
      CFWV4_4   = CFW4_4
      CFWV4_5   = CFW4_5
      CFWV4_6   = CFW4_6
      CFWV4_7   = CFW4_7
      CFWV4_8   = CFW4_8
      CFWV4_9   = CFW4_9
      CFWV4_10  = CFW4_10
      CFWV4_11  = CFW4_11
      CFWV4_12  = CFW4_12
```

```
CFWV4_13  = CFW4_13
CFWV4_14  = CFW4_14
CFWV4_15  = CFW4_15
CFWV4_16  = CFW4_16
CFWV4_17  = CFW4_17
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     CFWV3_117 = CFW3_117
     CFWV3_118 = CFW3_118
     CFWV3_119 = CFW3_119
     CFWV3_120 = CFW3_120 )
               );
  BY MPRID;

  IF FNSTATUS = 11;
  IF IN1 AND IN2;
  IF NOT (IN1 AND IN2) THEN PUT "ERROR: NO MATCHING MPRID WITH &DSNI_1..SD2 AND &DSNI_2..SD2";


  FORMAT CACSMPL CAC.  WEB WEB.
       /*TRICKDUP $trckdup. */
     N1 N1A1 N1A2  N1A3  N1A4 N1A5  N2  N3 N3A1 N3A2  N3A3  N3A4  N4
     N5 N6 N7 N8 N8A1 N9 N10  N10A1 N11 N11B  N12  N13 N14
     N15 N16 N16A1 N16A2 N17 N18 N18A1 N19A N19B
     N20 N21 N22 N23 N23A1 N24 N24A1 N24B1 N24B2
     N2_V3 N3_V3 N4_V3 N5_V3  N6_V3 N7_V3 N8_V3 N9_V3
     N10_V3 N11_V3 N12_V3  N13_V3 N14_V3
     N15_V3

       notes.

       XBMI xbmi.;
```

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LABEL CFW='Combined annual Weight'
                                   /* Correcting typo in Label */
     CFW1     ='Annual JK replicate weight 1 for COMBINED  '
     CFW2     ='Annual JK replicate weight 2 for COMBINED  '
     CFW3     ='Annual JK replicate weight 3 for COMBINED  '
     CFW4     ='Annual JK replicate weight 4 for COMBINED  '
     CFW5     ='Annual JK replicate weight 5 for COMBINED  '
     CFW6     ='Annual JK replicate weight 6 for COMBINED  '
     CFW7     ='Annual JK replicate weight 7 for COMBINED  '
     CFW8     ='Annual JK replicate weight 8 for COMBINED  '
     CFW9     ='Annual JK replicate weight 9 for COMBINED  '
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     CFW11    ='Annual JK replicate weight 11 for COMBINED '
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CFW3_79  ='Annual JK replicate weight 79 for V3 '
CFW3_80  ='Annual JK replicate weight 80 for V3 '
CFW3_81  ='Annual JK replicate weight 81 for V3 '
CFW3_82  ='Annual JK replicate weight 82 for V3 '
CFW3_83  ='Annual JK replicate weight 83 for V3 '
CFW3_84  ='Annual JK replicate weight 84 for V3 '
CFW3_85  ='Annual JK replicate weight 85 for V3 '
CFW3_86  ='Annual JK replicate weight 86 for V3 '
CFW3_87  ='Annual JK replicate weight 87 for V3 '
CFW3_88  ='Annual JK replicate weight 88 for V3 '
CFW3_89  ='Annual JK replicate weight 89 for V3 '
CFW3_90  ='Annual JK replicate weight 90 for V3 '
CFW3_91  ='Annual JK replicate weight 91 for V3 '
CFW3_92  ='Annual JK replicate weight 92 for V3 '
CFW3_93  ='Annual JK replicate weight 93 for V3 '
CFW3_94  ='Annual JK replicate weight 94 for V3 '
CFW3_95  ='Annual JK replicate weight 95 for V3 '
CFW3_96  ='Annual JK replicate weight 96 for V3 '
CFW3_97  ='Annual JK replicate weight 97 for V3 '
CFW3_98  ='Annual JK replicate weight 98 for V3 '
CFW3_99  ='Annual JK replicate weight 99 for V3 '
CFW3_100 ='Annual JK replicate weight 100 for V3'
CFW3_101 ='Annual JK replicate weight 101 for V3'
CFW3_102 ='Annual JK replicate weight 102 for V3'
CFW3_103 ='Annual JK replicate weight 103 for V3'
CFW3_104 ='Annual JK replicate weight 104 for V3'
CFW3_105 ='Annual JK replicate weight 105 for V3'
CFW3_106 ='Annual JK replicate weight 106 for V3'
CFW3_107 ='Annual JK replicate weight 107 for V3'
```

```
            CFW3_108 ='Annual JK replicate weight 108 for V3'
            CFW3_109 ='Annual JK replicate weight 109 for V3'
            CFW3_110 ='Annual JK replicate weight 110 for V3'
            CFW3_111 ='Annual JK replicate weight 111 for V3'
            CFW3_112 ='Annual JK replicate weight 112 for V3'
            CFW3_113 ='Annual JK replicate weight 113 for V3'
            CFW3_114 ='Annual JK replicate weight 114 for V3'
            CFW3_115 ='Annual JK replicate weight 115 for V3'
            CFW3_116 ='Annual JK replicate weight 116 for V3'
            CFW3_117 ='Annual JK replicate weight 117 for V3'
            CFW3_118 ='Annual JK replicate weight 118 for V3'
            CFW3_119 ='Annual JK replicate weight 119 for V3'
            CFW3_120 ='Annual JK replicate weight 120 for V3'
    ;


    RUN;


    DATA OUT.&DSNO ;
        *************************************************************************
        * Reorder file for documentation purposes.
        *************************************************************************;
        LENGTH
            MPRID       $ 8          /* ID                */
            SVCSMPL       8          /* sampling variable */
            SEXSMPL       8          /* sampling variable */
            STRATUM     $ 7          /* sampling variable */
            CACSMPL       8          /* sampling variable */
            ENBGSMPL    $ 2          /* sampling variable */
            MPCSMPL       8          /* sampling variable */
            NHFF          8          /* sampling variable */
            SERVAREA    $ 2          /* sampling variable */

/*          PRN           8 */      /* sampling variable */
            DCATCH      $ 4          /* sampling variable */
/*          ENRID       $ 4 */      /* sampling variable */
/*          DMIS_ID     $ 9 */      /* sampling variable */
            MSM         $ 2          /* sampling variable */
            D_FAC       $ 9          /* sampling variable */
/*          D_PAR       $ 4 */      /* sampling variable */
            D_HEALTH    $ 2          /* sampling variable */
            TNEXREG     $ 1          /* sampling variable */


            SERVAFF     $ 1          /* DEERS variable    */
            MRTLSTAT    $ 1          /* DEERS variable    */
            RACEETHN    $ 1          /* DEERS variable    */
            PNSEXCD     $ 1          /* DEERS variable    */
/*          LEGDDSCD    $ 2 */          /* DEERS variable    */
            DAGEQY      $ 3          /* DEERS variable    */
            FIELDAGE    $ 3          /* DEERS variable    */
            PCM         $ 3          /* DEERS variable    */
            ACV         $ 1          /* DEERS variable    */
            DBENCAT     $ 3          /* DEERS variable    */
            DMEDELG     $ 1          /* DEERS variable    */
            DSPONSVC    $ 1          /* DEERS variable    */
            MBRRELCD    $ 1          /* DEERS variable    */
            MEDTYPE     $ 1          /* DEERS variable    */
            PATCAT      $ 7          /* DEERS variable    */
            PNTYPCD     $ 1          /* DEERS variable    */
            PNLCATCD    $ 1          /* DEERS variable    */


            H09001        4          /* Questionaire variable    */
            H09002A       4          /* Questionaire variable    */
            H09002C       4          /* Questionaire variable    */
            H09002F       4          /* Questionaire variable    */
            H09002G       4          /* Questionaire variable    */
            H09002H       4          /* Questionaire variable    */
            H09002I       4          /* Questionaire variable    */
            H09002J       4          /* Questionaire variable    */
            H09002K       4          /* Questionaire variable    */
            H09002L       4          /* Questionaire variable    */
```

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```
H09002M      4         /* Questionaire variable    */
H09002N      4         /* Questionaire variable    */
H09002O      4         /* Questionaire variable    */
H09002P      4         /* Questionaire variable    */
H09002Q      4         /* Questionaire variable    */
H09002R      4         /* Questionaire variable    */
H09003       4         /* Questionaire variable    */
H09004       4         /* Questionaire variable    */
H09005       4         /* Questionaire variable    */
H09006       4         /* Questionaire variable    */
H09007       4         /* Questionaire variable    */
H09008       4         /* Questionaire variable    */
H09009       4         /* Questionaire variable    */
H09010       4         /* Questionaire variable    */
H09011       4         /* Questionaire variable    */
H09012       4         /* Questionaire variable    */
H09013       4         /* Questionaire variable    */
H09014       4         /* Questionaire variable    */
H09015       4         /* Questionaire variable    */
H09016       4         /* Questionaire variable    */
H09017       4         /* Questionaire variable    */
H09018       4         /* Questionaire variable    */
H09019       4         /* Questionaire variable    */
H09020       4         /* Questionaire variable    */
H09021       4         /* Questionaire variable    */
H09022       4         /* Questionaire variable    */
H09023       4         /* Questionaire variable    */
H09024       4         /* Questionaire variable    */
H09025       4         /* Questionaire variable    */
H09026       4         /* Questionaire variable    */
H09027       4         /* Questionaire variable    */
H09028       4         /* Questionaire variable    */
H09029       4         /* Questionaire variable    */
H09030       4         /* Questionaire variable    */
H09031       4         /* Questionaire variable    */
H09032       4         /* Questionaire variable    */
H09033       4         /* Questionaire variable    */
H09034B      4         /* Questionaire variable    */
H09034       4         /* Questionaire variable    */
H09035       4         /* Questionaire variable    */
H09036       4         /* Questionaire variable    */
H09037       4         /* Questionaire variable    */
H09038       4         /* Questionaire variable    */
H09039       4         /* Questionaire variable    */
H09040       4         /* Questionaire variable    */
H09041       4         /* Questionaire variable    */
H09042       4         /* Questionaire variable    */
H09043       4         /* Questionaire variable    */
H09044       4         /* Questionaire variable    */
H09045       4         /* Questionaire variable    */
H09046       4         /* Questionaire variable    */
H09047       4         /* Questionaire variable    */
H09048       4         /* Questionaire variable    */
H09049       4         /* Questionaire variable    */
H09050       4         /* Questionaire variable    */
H09051       4         /* Questionaire variable    */
H09052       4         /* Questionaire variable    */
H09053       4         /* Questionaire variable    */
H09054       4         /* Questionaire variable    */
H09055       4         /* Questionaire variable    */
H09056       4         /* Questionaire variable    */
H09057       4         /* Questionaire variable    */
H09058       4         /* Questionaire variable    */
H09059       4         /* Questionaire variable    */
H09060       4         /* Questionaire variable    */
H09061       4         /* Questionaire variable    */
H09062       4         /* Questionaire variable    */
H09063       4         /* Questionaire variable    */
H09064       4         /* Questionaire variable    */
H09065       4         /* Questionaire variable    */
H09066       4         /* Questionaire variable    */
H09067       4         /* Questionaire variable    */
H09068       4         /* Questionaire variable    */
H09069F      4         /* Questionaire variable    */
```

```
        H09069I         4              /* Questionaire variable    */
        H09070          4              /* Questionaire variable    */
        H09071          4              /* Questionaire variable    */
        H09071A         4              /* Questionaire variable    */
        H09071B         4              /* Questionaire variable    */
        H09071C         4              /* Questionaire variable    */
        H09071D         4              /* Questionaire variable    */
        H09071E         4              /* Questionaire variable    */
        H09072          4              /* Questionaire variable    */
        H09073          4              /* Questionaire variable    */
        H09074          4              /* Questionaire variable    */


/***** jma Nov 3 2009 V3 variables -beg****************************************************/
        H09008A         4              /* questionnaire       */
        H09009A         4              /* questionnaire       */
        H09010A         4              /* questionnaire       */
        H09011A         4              /* questionnaire       */
        H09012A         4              /* questionnaire       */
        H09013A         4              /* questionnaire       */
        H09014A         4              /* questionnaire       */
        H09015A         4              /* questionnaire       */
        H09016A         4              /* questionnaire       */
        H09017A         4              /* questionnaire       */
        H09018A         4              /* questionnaire       */
        H09019A         4              /* questionnaire       */
        H09020A         4              /* questionnaire       */
        H09021A         4              /* questionnaire       */
        H09022A         4              /* questionnaire       */
        H09023A         4              /* questionnaire       */
        H09024A         4              /* questionnaire       */
        H09025A         4              /* questionnaire       */
        H09026A         4              /* questionnaire       */
        H09027A         4              /* questionnaire       */
        H09028A         4              /* questionnaire       */
        H09029A         4              /* questionnaire       */
        H09030A         4              /* questionnaire       */
        H09031A         4              /* questionnaire       */
        H09032A         4              /* questionnaire       */
        H09033A         4              /* questionnaire       */
        H09034A         4              /* questionnaire       */
        H09035A         4              /* questionnaire       */
        H09036A         4              /* questionnaire       */
        H09037A         4              /* questionnaire       */
        H09039A         4              /* questionnaire       */
        H09040A         4              /* questionnaire       */
        H09041A         4              /* questionnaire       */
        H09042A         4              /* questionnaire       */
        H09043A         4              /* questionnaire       */
        H09044A         4              /* questionnaire       */
        H09045A         4              /* questionnaire       */
        H09046A         4              /* questionnaire       */
        H09047A         4              /* questionnaire       */
        H09048A         4              /* questionnaire       */
        H09054A         4              /* questionnaire       */

/***** jma Nov 3 2009 V3 variables -end****************************************************/


        SREDA           4              /* Questionaire variable    */
        SRRACEA         4              /* Questionaire variable    */
        SRRACEB         4              /* Questionaire variable    */
        SRRACEC         4              /* Questionaire variable    */
        SRRACED         4              /* Questionaire variable    */
        SRRACEE         4              /* Questionaire variable    */
        SRAGE           4              /* Questionaire variable    */

        S09B01          4              /* Q1 & Q2 & Q3 & Q4 Supplement */
        S09B02          4              /* Q1 & Q2 & Q3 & Q4 Supplement */
        S09B03          4              /* Q1 & Q2 & Q3 & Q4 Supplement */
        S09B04          4              /* Q1 & Q2 & Q3 & Q4 Supplement */
        S09B22          4              /* Q4 Supplement */
        S09B22A         4              /* Q4 Supplement */
        S09B22B         4              /* Q4 Supplement */
```

```
S09B22C        4              /* Q4 Supplement */
S09B23         4              /* Q4 Supplement */
S09B24         4              /* Q4 Supplement */
S09B25         4              /* Q4 Supplement */
S09B26         4              /* Q4 Supplement */
S09D01         4              /* Q2 Supplement */
S09D02         4              /* Q2 Supplement */
S09D03         4              /* Q2 Supplement */
S09D04         4              /* Q2 Supplement */
S09D05         4              /* Q2 Supplement */
S09N11         4              /* Q2 Supplement */
S09Q01         4              /* Q2 Supplement */
S09Q02         4              /* Q2 Supplement */
S09Q03         4              /* Q2 Supplement */
S09Q04         4              /* Q2 Supplement */
S09Q05         4              /* Q2 Supplement */
S09W01         4              /* Q3 Supplement */
S09W02         4              /* Q3 Supplement */
S09W03         4              /* Q3 Supplement */
S09W04         4              /* Q3 Supplement */
S09W05         4              /* Q3 Supplement */
S09W06         4              /* Q3 Supplement */
S09W07         4              /* Q3 Supplement */
S09O09         4              /* Q3 Supplement */
S09O10         4              /* Q3 Supplement */
S09O11         4              /* Q3 Supplement */
S09O12         4              /* Q3 Supplement */
S09O13         4              /* Q3 Supplement */
S09O14         4              /* Q3 Supplement */
S09K01         4              /* Q3 Supplement */
S09K02         4              /* Q3 Supplement */
S09K03         4              /* Q3 Supplement */
S09K04         4              /* Q3 Supplement */
S09K05         4              /* Q3 Supplement */
S09K12         4              /* Q3 Supplement */
S09K13         4              /* Q3 Supplement */
S09K14         4              /* Q3 Supplement */
S09K15         4              /* Q3 Supplement */
S09K16         4              /* Q3 Supplement */
S09J01         4              /* Q1 Supplement */
S09J02A        4              /* Q1 Supplement */
S09J02B        4              /* Q1 Supplement */
S09J02C        4              /* Q1 Supplement */
S09J02D        4              /* Q1 Supplement */
S09J02E        4              /* Q1 Supplement */
S09J02F        4              /* Q1 Supplement */
S09J02G        4              /* Q1 Supplement */
S09J02H        4              /* Q1 Supplement */
S09J02I        4              /* Q1 Supplement */
S09J03         4              /* Q1 Supplement */
S09J04         4              /* Q1 Supplement */
S09J05         4              /* Q1 Supplement */
S09J06         4              /* Q1 Supplement */
S09J07A        4              /* Q1 Supplement */
S09J07B        4              /* Q1 Supplement */
S09J07C        4              /* Q1 Supplement */
S09J07D        4              /* Q1 Supplement */
S09J07E        4              /* Q1 Supplement */
S09J07F        4              /* Q1 Supplement */
S09J07G        4              /* Q1 Supplement */
S09J07H        4              /* Q1 Supplement */
S09J07I        4              /* Q1 Supplement */
S09J07J        4              /* Q1 Supplement */
S09J07K        4              /* Q1 Supplement */
S09J07L        4              /* Q1 Supplement */
S09J07M        4              /* Q1 Supplement */
S09J07N        4              /* Q1 Supplement */
S09J08         4              /* Q1 Supplement */
S09J09A        4              /* Q1 Supplement */
S09J09B        4              /* Q1 Supplement */
S09J09C        4              /* Q1 Supplement */
S09J09D        4              /* Q1 Supplement */
S09J09E        4              /* Q1 Supplement */
S09J09F        4              /* Q1 Supplement */
```

```
    S09J09G        4           /* Q1 Supplement */
    S09J09H        4           /* Q1 Supplement */
    S09J09I        4           /* Q1 Supplement */
    S09J09J        4           /* Q1 Supplement */
    S09J09K        4           /* Q1 Supplement */
    S09J09L        4           /* Q1 Supplement */
    S09J10         4           /* Q1 Supplement */
    S09J11         4           /* Q1 Supplement */
    S09J12         4           /* Q1 Supplement */
    S09Z01         4           /* Q1 Supplement */
    S09Z02         4           /* Q1 Supplement */
    S09Z03         4           /* Q1 Supplement */
    S09Z04         4           /* Q1 Supplement */
    S09Z06         4           /* Q1 Supplement */
    S09Z07         4           /* Q1 Supplement */
    S09Z10         4           /* Q1 Supplement */
    S09Z11         4           /* Q1 Supplement */
    S09Z12         4           /* Q1 Supplement */
    S09Z13         4           /* Q1 Supplement */
    S09Z14         4           /* Q1 Supplement */
    S09Z15         4           /* Q1 Supplement */
    S09Z16         4           /* Q1 Supplement */
    S09Z17         4           /* Q1 Supplement */


    ONTIME      $ 3           /* Survey fielding variable  */
    FLAG_FIN    $ 5           /* Survey Fielding variable  */
    DUPFLAG     $ 3           /* Survey Fielding variable  */
    FNSTATUS      8           /* Survey fielding variable  */
    KEYCOUNT      8           /* Survey fielding variable  */
    QUARTER     $ 8           /* Survey fielding variable  */
    /*TRICKDUP  $ 3*/           /* Survey Fielding variable  */
    WEB           8           /* Survey Fielding variable  */
    VERSION       8           /* Survey fielding variable */
/*   WEBFLYER      8        */  /* Survey Fielding variable  */


    N1            8           /* CS flag variable      */
    N1A1          8           /* CS flag variable      */
    N1A2          8           /* CS flag variable      */
    N1A3          8           /* CS flag variable      */
    N1A4          8           /* CS flag variable      */
    N1A5          8           /* CS flag variable      */
    N2            8           /* CS flag variable      */
    N3            8           /* CS flag variable      */
    N3A1          8           /* CS flag variable      */
    N3A2          8           /* CS flag variable      */
    N3A3          8           /* CS flag variable      */
    N3A4          8           /* CS flag variable      */
    N4            8           /* CS flag variable      */
    N5            8           /* CS flag variable      */
    N6            8           /* CS flag variable      */
    N7            8           /* CS flag variable      */
    N8            8           /* CS flag variable      */
    N8A1          8           /* CS flag variable      */
    N9            8           /* CS flag variable      */
    N10           8           /* CS flag variable      */
    N10A1         8           /* CS flag variable      */
    N11           8           /* CS flag variable      */
    N11B          8           /* CS flag variable      */
    N12           8           /* CS flag variable      */
    N13           8           /* CS flag variable      */
    N14           8           /* CS flag variable      */
    N15           8           /* CS flag variable      */
    N16           8           /* CS flag variable      */
    N16A1         8           /* CS flag variable      */
    N16A2         8           /* CS flag variable      */
    N17           8           /* CS flag variable      */
    N18           8           /* CS flag variable      */
    N18A1         8           /* CS flag variable      */
    N19A          8           /* CS flag variable      */
    N19B          8           /* CS flag variable      */
```

```
        N20             8           /* CS flag variable     */
        N21             8           /* CS flag variable     */
        N22             8           /* CS flag variable     */
        N23             8           /* CS flag variable     */
        N23A1           8           /* CS flag variable     */
        N24             8           /* CS flag variable     */
        N24A1           8           /* CS flag variable     */
        N24B1           8           /* CS flag variable     */
        N24B2           8           /* CS flag variable     */

/****jma Nov 3 2009 V3 CS flag variables variables -beg*****************************/
        N2_V3           8           /* CS flag variable     */
        N3_V3           8           /* CS flag variable     */
        N4_V3           8           /* CS flag variable     */
        N5_V3           8           /* CS flag variable     */
        N6_V3           8           /* CS flag variable     */
        N7_V3           8           /* CS flag variable     */
        N8_V3           8           /* CS flag variable     */
        N9_V3           8           /* CS flag variable     */
        N10_V3          8           /* CS flag variable     */
        N11_V3          8           /* CS flag variable     */
        N12_V3          8           /* CS flag variable     */
        N13_V3          8           /* CS flag variable     */
        N14_V3          8           /* CS flag variable     */
        N15_V3          8           /* CS flag variable     */
/****jma Nov 3 2009 V3 CS flag variables variables -end*****************************/


        MISS_1          8           /* CS Count             */
        MISS_4          8           /* CS Count             */
        MISS_5          8           /* CS Count             */
        MISS_6          8           /* CS Count             */
        MISS_7          8           /* CS Count             */
        MISS_8          8           /* CS Count             */
        MISS_9          8           /* CS Count             */
        MISS_TOT        8           /* CS Count             */

        XSERVAFF        3           /* constructed      */
        XTNEXREG        3           /* constructed      */
        XBMI            8           /* constructed      */
        XBMICAT         3           /* constructed      */
        XENRLLMT        8           /* constructed      */
        XENR_PCM        8           /* constructed      */
        XINS_COV        8           /* constructed      */
        XBENCAT         8           /* constructed      */
        XENR_RSV        8           /* constructed      */
        XINS_RSV        8           /* constructed      */
        XREGION         3           /* constructed      */
        XCATCH          8           /* constructed      */
        USA             3           /* constructed      */
        XOCONUS         3           /* constructed      */
        OUTCATCH        8           /* constructed      */
        XSEXA           8           /* constructed      */
        XBNFGRP         8           /* constructed      */
        /*KDISENRL       8*/          /* constructed      */
        KMILOFFC        8           /* constructed      */
        KCIVOFFC        8           /* constructed      */
        KBGPRB1         8           /* constructed      */
        KBGPRB2         8           /* constructed      */
        KMILOPQY        8           /* constructed      */
        KCIVOPQY        8           /* constructed      */
        KCIVINS         8           /* constructed      */


        /*KBRSTCR        8*/          /* constructed      */
        HP_PRNTL        8           /* constructed      */
        HP_MAMOG        8           /* constructed      */
        HP_MAM50        8           /* constructed      */
        HP_PAP          8           /* constructed      */
        HP_BP           8           /* constructed      */
        HP_FLU          8           /* constructed      */
        /*HP_PROS        8 */          /* constructed      */

        /*HP_BRST        8 */          /* constructed      */
        /*HP_CHOL        8 */          /* constructed      */
```

```
        HP_SMOKE      8              /* constructed       */
        HP_SMOKH      8              /* constructed       */
        HP_SMKH2      8              /* constructed       */
/*      HP_CESS       8 */           /* constructed       */
        HP_CESH       8              /*constructed       */
        HP_CESH2      8              /* constructed       */
/*       HP_NORM      8 */           /* constructed       */
        HP_OBESE      8              /* constructed       */


/*       ADJ_CELL     $7 */          /* constructed       */
/*        POSTC_O     $3 */          /* constructed       */
        POSTCELL      $7             /* constructed       */

        BWT           8              /* weights           */
        FWRWT_V4      8              /* weights           */
        FWTV4_1       8              /* weights           */
        FWTV4_2       8              /* weights           */
        FWTV4_3       8              /* weights           */
        FWTV4_4       8              /* weights           */
        FWTV4_5       8              /* weights           */
        FWTV4_6       8              /* weights           */
        FWTV4_7       8              /* weights           */
        FWTV4_8       8              /* weights           */
        FWTV4_9       8              /* weights           */
        FWTV4_10      8              /* weights           */
        FWTV4_11      8              /* weights           */
        FWTV4_12      8              /* weights           */
        FWTV4_13      8              /* weights           */
        FWTV4_14      8              /* weights           */
        FWTV4_15      8              /* weights           */
        FWTV4_16      8              /* weights           */
        FWTV4_17      8              /* weights           */
        FWTV4_18      8              /* weights           */
        FWTV4_19      8              /* weights           */
        FWTV4_20      8              /* weights           */
        FWTV4_21      8              /* weights           */
        FWTV4_22      8              /* weights           */
        FWTV4_23      8              /* weights           */
        FWTV4_24      8              /* weights           */
        FWTV4_25      8              /* weights           */
        FWTV4_26      8              /* weights           */
        FWTV4_27      8              /* weights           */
        FWTV4_28      8              /* weights           */
        FWTV4_29      8              /* weights           */
        FWTV4_30      8              /* weights           */
        FWTV4_31      8              /* weights           */
        FWTV4_32      8              /* weights           */
        FWTV4_33      8              /* weights           */
        FWTV4_34      8              /* weights           */
        FWTV4_35      8              /* weights           */
        FWTV4_36      8              /* weights           */
        FWTV4_37      8              /* weights           */
        FWTV4_38      8              /* weights           */
        FWTV4_39      8              /* weights           */
        FWTV4_40      8              /* weights           */
        FWTV4_41      8              /* weights           */
        FWTV4_42      8              /* weights           */
        FWTV4_43      8              /* weights           */
        FWTV4_44      8              /* weights           */
        FWTV4_45      8              /* weights           */
        FWTV4_46      8              /* weights           */
        FWTV4_47      8              /* weights           */
        FWTV4_48      8              /* weights           */
        FWTV4_49      8              /* weights           */
        FWTV4_50      8              /* weights           */
        FWTV4_51      8              /* weights           */
        FWTV4_52      8              /* weights           */
        FWTV4_53      8              /* weights           */
        FWTV4_54      8              /* weights           */
        FWTV4_55      8              /* weights           */
        FWTV4_56      8              /* weights           */
        FWTV4_57      8              /* weights           */
        FWTV4_58      8              /* weights           */
        FWTV4_59      8              /* weights           */
```

```
FWTV4_60        8               /* weights           */

FWRWT_V3        8               /* weights           */
FWTV3_1         8               /* weights           */
FWTV3_2         8               /* weights           */
FWTV3_3         8               /* weights           */
FWTV3_4         8               /* weights           */
FWTV3_5         8               /* weights           */
FWTV3_6         8               /* weights           */
FWTV3_7         8               /* weights           */
FWTV3_8         8               /* weights           */
FWTV3_9         8               /* weights           */
FWTV3_10        8               /* weights           */
FWTV3_11        8               /* weights           */
FWTV3_12        8               /* weights           */
FWTV3_13        8               /* weights           */
FWTV3_14        8               /* weights           */
FWTV3_15        8               /* weights           */
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FWTV3_17        8               /* weights           */
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FWTV3_19        8               /* weights           */
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FWTV3_51        8               /* weights           */
FWTV3_52        8               /* weights           */
FWTV3_53        8               /* weights           */
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FWTV3_55        8               /* weights           */
FWTV3_56        8               /* weights           */
FWTV3_57        8               /* weights           */
FWTV3_58        8               /* weights           */
FWTV3_59        8               /* weights           */
FWTV3_60        8               /* weights           */

FWRWT           8               /* weights           */
FWRWT1          8               /* weights           */
FWRWT2          8               /* weights           */
FWRWT3          8               /* weights           */
FWRWT4          8               /* weights           */
FWRWT5          8               /* weights           */
FWRWT6          8               /* weights           */
FWRWT7          8               /* weights           */
FWRWT8          8               /* weights           */
FWRWT9          8               /* weights           */
```

```
FWRWT10        8              /* weights            */
FWRWT11        8              /* weights            */
FWRWT12        8              /* weights            */
FWRWT13        8              /* weights            */
FWRWT14        8              /* weights            */
FWRWT15        8              /* weights            */
FWRWT16        8              /* weights            */
FWRWT17        8              /* weights            */
FWRWT18        8              /* weights            */
FWRWT19        8              /* weights            */
FWRWT20        8              /* weights            */
FWRWT21        8              /* weights            */
FWRWT22        8              /* weights            */
FWRWT23        8              /* weights            */
FWRWT24        8              /* weights            */
FWRWT25        8              /* weights            */
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FWRWT27        8              /* weights            */
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FWRWT30        8              /* weights            */
FWRWT31        8              /* weights            */
FWRWT32        8              /* weights            */
FWRWT33        8              /* weights            */
FWRWT34        8              /* weights            */
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FWRWT36        8              /* weights            */
FWRWT37        8              /* weights            */
FWRWT38        8              /* weights            */
FWRWT39        8              /* weights            */
FWRWT40        8              /* weights            */
FWRWT41        8              /* weights            */
FWRWT42        8              /* weights            */
FWRWT43        8              /* weights            */
FWRWT44        8              /* weights            */
FWRWT45        8              /* weights            */
FWRWT46        8              /* weights            */
FWRWT47        8              /* weights            */
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FWRWT49        8              /* weights            */
FWRWT50        8              /* weights            */
FWRWT51        8              /* weights            */
FWRWT52        8              /* weights            */
FWRWT53        8              /* weights            */
FWRWT54        8              /* weights            */
FWRWT55        8              /* weights            */
FWRWT56        8              /* weights            */
FWRWT57        8              /* weights            */
FWRWT58        8              /* weights            */
FWRWT59        8              /* weights            */
FWRWT60        8              /* weights            */

CFW_V4          8              /* weights            */
CFW4_1         8              /* weights            */
CFW4_2         8              /* weights            */
CFW4_3         8              /* weights            */
CFW4_4         8              /* weights            */
CFW4_5         8              /* weights            */
CFW4_6         8              /* weights            */
CFW4_7         8              /* weights            */
CFW4_8         8              /* weights            */
CFW4_9         8              /* weights            */
CFW4_10        8              /* weights            */
CFW4_11        8              /* weights            */
CFW4_12        8              /* weights            */
CFW4_13        8              /* weights            */
CFW4_14        8              /* weights            */
CFW4_15        8              /* weights            */
CFW4_16        8              /* weights            */
CFW4_17        8              /* weights            */
CFW4_18        8              /* weights            */
CFW4_19        8              /* weights            */
CFW4_20        8              /* weights            */
CFW4_21        8              /* weights            */
```

```
CFW4_22          8          /*  weights          */
CFW4_23          8          /*  weights          */
CFW4_24          8          /*  weights          */
CFW4_25          8          /*  weights          */
CFW4_26          8          /*  weights          */
CFW4_27          8          /*  weights          */
CFW4_28          8          /*  weights          */
CFW4_29          8          /*  weights          */
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CFW4_31          8          /*  weights          */
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CFW4_33          8          /*  weights          */
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CFW4_36          8          /*  weights          */
CFW4_37          8          /*  weights          */
CFW4_38          8          /*  weights          */
CFW4_39          8          /*  weights          */
CFW4_40          8          /*  weights          */
CFW4_41          8          /*  weights          */
CFW4_42          8          /*  weights          */
CFW4_43          8          /*  weights          */
CFW4_44          8          /*  weights          */
CFW4_45          8          /*  weights          */
CFW4_46          8          /*  weights          */
CFW4_47          8          /*  weights          */
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CFW4_62          8          /*  weights          */
CFW4_63          8          /*  weights          */
CFW4_64          8          /*  weights          */
CFW4_65          8          /*  weights          */
CFW4_66          8          /*  weights          */
CFW4_67          8          /*  weights          */
CFW4_68          8          /*  weights          */
CFW4_69          8          /*  weights          */
CFW4_70          8          /*  weights          */
CFW4_71          8          /*  weights          */
CFW4_72          8          /*  weights          */
CFW4_73          8          /*  weights          */
CFW4_74          8          /*  weights          */
CFW4_75          8          /*  weights          */
CFW4_76          8          /*  weights          */
CFW4_77          8          /*  weights          */
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CFW4_87          8          /*  weights          */
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CFW4_89          8          /*  weights          */
CFW4_90          8          /*  weights          */
CFW4_91          8          /*  weights          */
CFW4_92          8          /*  weights          */
CFW4_93          8          /*  weights          */
CFW4_94          8          /*  weights          */
CFW4_95          8          /*  weights          */
```

```
CFW4_96          8               /* weights              */
CFW4_97          8               /* weights              */
CFW4_98          8               /* weights              */
CFW4_99          8               /* weights              */
CFW4_100         8               /* weights              */
CFW4_101         8               /* weights              */
CFW4_102         8               /* weights              */
CFW4_103         8               /* weights              */
CFW4_104         8               /* weights              */
CFW4_105         8               /* weights              */
CFW4_106         8               /* weights              */
CFW4_107         8               /* weights              */
CFW4_108         8               /* weights              */
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CFW4_112         8               /* weights              */
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CFW4_166         8               /* weights              */
CFW4_167         8               /* weights              */
CFW4_168         8               /* weights              */
CFW4_169         8               /* weights              */
```

```
CFW4_170        8           /* weights           */
CFW4_171        8           /* weights           */
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CFW4_174        8           /* weights           */
CFW4_175        8           /* weights           */
CFW4_176        8           /* weights           */
CFW4_177        8           /* weights           */
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CFW4_179        8           /* weights           */
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CFW4_235        8           /* weights           */
CFW4_236        8           /* weights           */
CFW4_237        8           /* weights           */
CFW4_238        8           /* weights           */
CFW4_239        8           /* weights           */
CFW4_240        8           /* weights           */


CFW_V3          8           /* weights           */
CFW3_1          8           /* weights           */
```

```
CFW3_2          8           /* weights           */
CFW3_3          8           /* weights           */
CFW3_4          8           /* weights           */
CFW3_5          8           /* weights           */
CFW3_6          8           /* weights           */
CFW3_7          8           /* weights           */
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CFW3_9          8           /* weights           */
CFW3_10         8           /* weights           */
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CFW3_24         8           /* weights           */
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CFW3_60         8           /* weights           */
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CFW3_68         8           /* weights           */
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CFW3_72         8           /* weights           */
CFW3_73         8           /* weights           */
CFW3_74         8           /* weights           */
CFW3_75         8           /* weights           */
```

```
CFW3_76        8              /* weights           */
CFW3_77        8              /* weights           */
CFW3_78        8              /* weights           */
CFW3_79        8              /* weights           */
CFW3_80        8              /* weights           */
CFW3_81        8              /* weights           */
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CFW3_86        8              /* weights           */
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CFW3_94        8              /* weights           */
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CFW3_97        8              /* weights           */
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CFW3_102       8              /* weights           */
CFW3_103       8              /* weights           */
CFW3_104       8              /* weights           */
CFW3_105       8              /* weights           */
CFW3_106       8              /* weights           */
CFW3_107       8              /* weights           */
CFW3_108       8              /* weights           */
CFW3_109       8              /* weights           */
CFW3_110       8              /* weights           */
CFW3_111       8              /* weights           */
CFW3_112       8              /* weights           */
CFW3_113       8              /* weights           */
CFW3_114       8              /* weights           */
CFW3_115       8              /* weights           */
CFW3_116       8              /* weights           */
CFW3_117       8              /* weights           */
CFW3_118       8              /* weights           */
CFW3_119       8              /* weights           */
CFW3_120       8              /* weights           */

CFW            8           /* weights           */
CFW1           8           /* weights           */
CFW2           8           /* weights           */
CFW3           8           /* weights           */
CFW4           8           /* weights           */
CFW5           8           /* weights           */
CFW6           8           /* weights           */
CFW7           8           /* weights           */
CFW8           8           /* weights           */
CFW9           8           /* weights           */
CFW10          8           /* weights           */
CFW11          8           /* weights           */
CFW12          8           /* weights           */
CFW13          8           /* weights           */
CFW14          8           /* weights           */
CFW15          8           /* weights           */
CFW16          8           /* weights           */
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CFW18          8           /* weights           */
CFW19          8           /* weights           */
CFW20          8           /* weights           */
CFW21          8           /* weights           */
CFW22          8           /* weights           */
CFW23          8           /* weights           */
CFW24          8           /* weights           */
CFW25          8           /* weights           */
CFW26          8           /* weights           */
CFW27          8           /* weights           */
```

```
CFW28       8           /* weights          */
CFW29       8           /* weights          */
CFW30       8           /* weights          */
CFW31       8           /* weights          */
CFW32       8           /* weights          */
CFW33       8           /* weights          */
CFW34       8           /* weights          */
CFW35       8           /* weights          */
CFW36       8           /* weights          */
CFW37       8           /* weights          */
CFW38       8           /* weights          */
CFW39       8           /* weights          */
CFW40       8           /* weights          */
CFW41       8           /* weights          */
CFW42       8           /* weights          */
CFW43       8           /* weights          */
CFW44       8           /* weights          */
CFW45       8           /* weights          */
CFW46       8           /* weights          */
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CFW48       8           /* weights          */
CFW49       8           /* weights          */
CFW50       8           /* weights          */
CFW51       8           /* weights          */
CFW52       8           /* weights          */
CFW53       8           /* weights          */
CFW54       8           /* weights          */
CFW55       8           /* weights          */
CFW56       8           /* weights          */
CFW57       8           /* weights          */
CFW58       8           /* weights          */
CFW59       8           /* weights          */
CFW60       8           /* weights          */
CFW61       8           /* weights          */
CFW62       8           /* weights          */
CFW63       8           /* weights          */
CFW64       8           /* weights          */
CFW65       8           /* weights          */
CFW66       8           /* weights          */
CFW67       8           /* weights          */
CFW68       8           /* weights          */
CFW69       8           /* weights          */
CFW70       8           /* weights          */
CFW71       8           /* weights          */
CFW72       8           /* weights          */
CFW73       8           /* weights          */
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CFW75       8           /* weights          */
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CFW79       8           /* weights          */
CFW80       8           /* weights          */
CFW81       8           /* weights          */
CFW82       8           /* weights          */
CFW83       8           /* weights          */
CFW84       8           /* weights          */
CFW85       8           /* weights          */
CFW86       8           /* weights          */
CFW87       8           /* weights          */
CFW88       8           /* weights          */
CFW89       8           /* weights          */
CFW90       8           /* weights          */
CFW91       8           /* weights          */
CFW92       8           /* weights          */
CFW93       8           /* weights          */
CFW94       8           /* weights          */
CFW95       8           /* weights          */
CFW96       8           /* weights          */
CFW97       8           /* weights          */
CFW98       8           /* weights          */
CFW99       8           /* weights          */
CFW100      8           /* weights          */
CFW101      8           /* weights          */
```

```
CFW102          8               /* weights               */
CFW103          8               /* weights               */
CFW104          8               /* weights               */
CFW105          8               /* weights               */
CFW106          8               /* weights               */
CFW107          8               /* weights               */
CFW108          8               /* weights               */
CFW109          8               /* weights               */
CFW110          8               /* weights               */
CFW111          8               /* weights               */
CFW112          8               /* weights               */
CFW113          8               /* weights               */
CFW114          8               /* weights               */
CFW115          8               /* weights               */
CFW116          8               /* weights               */
CFW117          8               /* weights               */
CFW118          8               /* weights               */
CFW119          8               /* weights               */
CFW120          8               /* weights               */
CFW121          8               /* weights               */
CFW122          8               /* weights               */
CFW123          8               /* weights               */
CFW124          8               /* weights               */
CFW125          8               /* weights               */
CFW126          8               /* weights               */
CFW127          8               /* weights               */
CFW128          8               /* weights               */
CFW129          8               /* weights               */
CFW130          8               /* weights               */
CFW131          8               /* weights               */
CFW132          8               /* weights               */
CFW133          8               /* weights               */
CFW134          8               /* weights               */
CFW135          8               /* weights               */
CFW136          8               /* weights               */
CFW137          8               /* weights               */
CFW138          8               /* weights               */
CFW139          8               /* weights               */
CFW140          8               /* weights               */
CFW141          8               /* weights               */
CFW142          8               /* weights               */
CFW143          8               /* weights               */
CFW144          8               /* weights               */
CFW145          8               /* weights               */
CFW146          8               /* weights               */
CFW147          8               /* weights               */
CFW148          8               /* weights               */
CFW149          8               /* weights               */
CFW150          8               /* weights               */
CFW151          8               /* weights               */
CFW152          8               /* weights               */
CFW153          8               /* weights               */
CFW154          8               /* weights               */
CFW155          8               /* weights               */
CFW156          8               /* weights               */
CFW157          8               /* weights               */
CFW158          8               /* weights               */
CFW159          8               /* weights               */
CFW160          8               /* weights               */
CFW161          8               /* weights               */
CFW162          8               /* weights               */
CFW163          8               /* weights               */
CFW164          8               /* weights               */
CFW165          8               /* weights               */
CFW166          8               /* weights               */
CFW167          8               /* weights               */
CFW168          8               /* weights               */
CFW169          8               /* weights               */
CFW170          8               /* weights               */
CFW171          8               /* weights               */
CFW172          8               /* weights               */
CFW173          8               /* weights               */
CFW174          8               /* weights               */
CFW175          8               /* weights               */
```

```
                CFW176         8              /* weights          */
                CFW177         8              /* weights          */
                CFW178         8              /* weights          */
                CFW179         8              /* weights          */
                CFW180         8              /* weights          */
                CFW181         8              /* weights          */
                CFW182         8              /* weights          */
                CFW183         8              /* weights          */
                CFW184         8              /* weights          */
                CFW185         8              /* weights          */
                CFW186         8              /* weights          */
                CFW187         8              /* weights          */
                CFW188         8              /* weights          */
                CFW189         8              /* weights          */
                CFW190         8              /* weights          */
                CFW191         8              /* weights          */
                CFW192         8              /* weights          */
                CFW193         8              /* weights          */
                CFW194         8              /* weights          */
                CFW195         8              /* weights          */
                CFW196         8              /* weights          */
                CFW197         8              /* weights          */
                CFW198         8              /* weights          */
                CFW199         8              /* weights          */
                CFW200         8              /* weights          */
                CFW201         8              /* weights          */
                CFW202         8              /* weights          */
                CFW203         8              /* weights          */
                CFW204         8              /* weights          */
                CFW205         8              /* weights          */
                CFW206         8              /* weights          */
                CFW207         8              /* weights          */
                CFW208         8              /* weights          */
                CFW209         8              /* weights          */
                CFW210         8              /* weights          */
                CFW211         8              /* weights          */
                CFW212         8              /* weights          */
                CFW213         8              /* weights          */
                CFW214         8              /* weights          */
                CFW215         8              /* weights          */
                CFW216         8              /* weights          */
                CFW217         8              /* weights          */
                CFW218         8              /* weights          */
                CFW219         8              /* weights          */
                CFW220         8              /* weights          */
                CFW221         8              /* weights          */
                CFW222         8              /* weights          */
                CFW223         8              /* weights          */
                CFW224         8              /* weights          */
                CFW225         8              /* weights          */
                CFW226         8              /* weights          */
                CFW227         8              /* weights          */
                CFW228         8              /* weights          */
                CFW229         8              /* weights          */
                CFW230         8              /* weights          */
                CFW231         8              /* weights          */
                CFW232         8              /* weights          */
                CFW233         8              /* weights          */
                CFW234         8              /* weights          */
                CFW235         8              /* weights          */
                CFW236         8              /* weights          */
                CFW237         8              /* weights          */
                CFW238         8              /* weights          */
                CFW239         8              /* weights          */
                CFW240         8              /* weights          */
            ;

        SET  &DSNO;

        LABEL XCATCH = "XCATCH - Catchment Area (Reporting) ";
        FORMAT XCATCH CACR.;
        BY MPRID;
    RUN;
```

```
TITLE1 "DOD Annual Health Care Survey (6244-300)";
TITLE2 "Program Name: ADDWGTS.SAS";
TITLE3 "Program Inputs: &DSNI_1..SD2 -- &DSNI_2..SD2";
TITLE4 "Program Outputs: &DSNO..SD2";

PROC CONTENTS POSITION; RUN;
```

F.16   WEIGHTING\FIX2007XCATCH.SAS - FIX CATCHMENT REPORTING VARIABLE (XCATCH) FOR 2007 - ANNUAL.

```
*****************************************************************************
*
* PROGRAM: Fix2007XCATCH.SAS
* PURPOSE: Fix catchment reporting variable (XCATCH) for 2007
* WRITTEN  October 10, 2008 BY Mike Rudacille
* TASK:    2009 DoD Database Development (6401-903)
*
* INPUTS:  1) FRAMEA.SD2 - 2007 Quarterly Sample Frames
*          2) HCS07A_1/2.SD2 - 2007 Combined Annual HCSDB dataset
*
* OUTPUTS: 1) XCATCH07.SD2 - 2007 combined corrected Annual HCSDB dataset
*             (output in the 2009 data area)
*
* NOTES:   1) XCATCH needed to be redefined with the 2009 definition
*             on the 2007 annual dataset
*
*****************************************************************************;
OPTIONS NOFMTERR NOCENTER LS=132 PS=80 COMPRESS=YES;
LIBNAME OUT V612 "..\..\DATA";
LIBNAME IN2007 V612 "..\..\..\2007\DATA";

*****************************************************************************
* Extract variables necessary to construct XCATCH by QUARTER.
*****************************************************************************;
%MACRO GET_QTR(QTR=);
   PROC SORT DATA=IN2007.HCS07A_2
        (KEEP=MPRID ENRID PCM DCATCH D_HEALTH D_FAC SERVAFF XREGION PATCAT QUARTER)
        OUT=TEMP1_&QTR;
      BY MPRID;
      WHERE QUARTER = "&QTR";
   RUN;
%MEND;

%GET_QTR(QTR=Q1FY2007);
%GET_QTR(QTR=Q2FY2007);
%GET_QTR(QTR=Q3FY2007);
%GET_QTR(QTR=Q4FY2007);

*****************************************************************************
* Extract D_PAR for use with creating XCATCH.
*****************************************************************************;
%MACRO GETD_PAR(LOC=);
   LIBNAME IN V612 "..\..\..\&LOC.\DATA\AFINAL";
   PROC SORT DATA=IN.FRAMEA(KEEP=MPRID D_PAR) OUT=&LOC.;
      BY MPRID;
   RUN;
%MEND;

%GETD_PAR(LOC=Q1FY2007);
%GETD_PAR(LOC=Q2FY2007);
%GETD_PAR(LOC=Q3FY2007);
%GETD_PAR(LOC=Q4FY2007);

DATA Q1;
   MERGE Q1FY2007(IN=IN1) TEMP1_Q1FY2007(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA Q2;
   MERGE Q2FY2007(IN=IN1) TEMP1_Q2FY2007(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA Q3;
   MERGE Q3FY2007(IN=IN1) TEMP1_Q3FY2007(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
```

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```
DATA Q4;
   MERGE Q4FY2007(IN=IN1) TEMP1_Q4FY2007(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA TEMP1;
   SET Q1 Q2 Q3 Q4;
   BY MPRID;

   IF      SERVAFF = 'A' THEN XSERVAFF = 1; * Army;
   ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2; * Air Force;
   ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3; * Navy;
   ELSE XSERVAFF = 4;                        * Other;

   ****************************************************************************
   * Assign XTNEXREG and XOCONUS using XREGION.
   ***************************************************************************;
   IF XREGION IN (1,2,5) THEN XTNEXREG = 1;
   ELSE IF XREGION IN (3,4,6) THEN XTNEXREG = 2;
   ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG = 3;
   ELSE IF XREGION IN (13,14,15) THEN XTNEXREG = 4;

   IF XREGION      = 13 THEN XOCONUS = 1;
   ELSE IF XREGION = 14 THEN XOCONUS = 2;
   ELSE IF XREGION = 15 THEN XOCONUS = 3;
RUN;

*******************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TMPXCTCH with XCATCH is created by this include file.
******************************************************************************;
%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;
PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;

PROC SORT DATA=IN2007.HCS07A_1(DROP=XCATCH) OUT=HCS07A_1;
   BY MPRID;
RUN;

DATA OUT.XCATCH07;
   MERGE HCS07A_1(IN=IN1) TMPXCTCH(IN=IN2);
   BY MPRID;
   FORMAT _ALL_;
   KEEP MPRID XCATCH QUARTER;
RUN;

TITLE1 "Annual DOD Health Care Survey Database (6401-903)";
TITLE2 "Program Name: Fix2007XCATCH.SAS By Mike Rudacille";
TITLE3 "Program Inputs: 2007 HCSDB sample and analysis files";
TITLE4 "Program Output: XCATCH07.SD2 - FY 2007 Combined XCATCH dataset";

PROC FREQ;
   TABLES XCATCH /MISSING LIST;
RUN;
```

```
*****************************************************************************
*
* PROGRAM: Fix2008XCATCH.SAS
* PURPOSE: Fix catchment reporting variable (XCATCH) for 2008
* WRITTEN  November 6, 2007 BY Keith Rathbun
* TASK:    2009 DoD Database Development (6244-300)
*
* INPUTS:  1) FRAMEA.SD2 - 2008 Quarterly Sample Frames
*          2) HCS08A_1/2.SD2 - 2008 Combined Annual HCSDB dataset
*
* UPDATES: 1) September 17, 2009 by Emma Ernst for 2009 database
*
* OUTPUTS: 1) XCATCH08.SD2 - 2008 combined corrected Annual HCSDB dataset
*             (output in the 2009 data area)
*
* NOTES:   1) XCATCH needed to be redefined with the 2009 definition
*             on the 2008 annual dataset
*
*****************************************************************************;
OPTIONS NOFMTERR NOCENTER LS=132 PS=80 COMPRESS=YES;
LIBNAME OUT    "..\..\DATA";
LIBNAME IN2008 "..\..\..\2008\DATA";

*****************************************************************************
* Extract variables necessary to construct XCATCH by QUARTER.
*****************************************************************************;
%MACRO GET_QTR(QTR=);
   PROC SORT DATA=IN2008.HCS08A_2
      (KEEP=MPRID ENRID PCM DCATCH D_HEALTH D_FAC SERVAFF XREGION PATCAT QUARTER)
      OUT=TEMP1_&QTR;
      BY MPRID;
      WHERE QUARTER = "&QTR";
   RUN;
%MEND;

%GET_QTR(QTR=Q1FY2008);
%GET_QTR(QTR=Q2FY2008);
%GET_QTR(QTR=Q3FY2008);
%GET_QTR(QTR=Q4FY2008);

*****************************************************************************
* Extract D_PAR for use with creating XCATCH.
*****************************************************************************;
%MACRO GETD_PAR(LOC=);
   %IF "&LOC" = "Q4FY2008" %THEN %DO;
      LIBNAME IN "..\..\..\&LOC.\DATA\AFINAL";
   %END;
   %ELSE %DO;
      LIBNAME IN V612 "..\..\..\&LOC.\DATA\AFINAL";
   %END;
   PROC SORT DATA=IN.FRAMEA(KEEP=MPRID D_PAR) OUT=&LOC.;
      BY MPRID;
   RUN;
%MEND;

%GETD_PAR(LOC=Q1FY2008);
%GETD_PAR(LOC=Q2FY2008);
%GETD_PAR(LOC=Q3FY2008);
%GETD_PAR(LOC=Q4FY2008);

DATA Q1;
   MERGE Q1FY2008(IN=IN1) TEMP1_Q1FY2008(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA Q2;
   MERGE Q2FY2008(IN=IN1) TEMP1_Q2FY2008(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;
```

```
DATA Q3;
   MERGE Q3FY2008(IN=IN1) TEMP1_Q3FY2008(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA Q4;
   MERGE Q4FY2008(IN=IN1) TEMP1_Q4FY2008(IN=IN2);
   BY MPRID;
   IF IN1 AND IN2;
RUN;

DATA TEMP1;
   SET Q1 Q2 Q3 Q4;
   BY MPRID;

   IF      SERVAFF = 'A' THEN XSERVAFF = 1; * Army;
   ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2; * Air Force;
   ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3; * Navy;
   ELSE XSERVAFF = 4;                       * Other;

   ****************************************************************************
   * Assign XTNEXREG and XOCONUS using XREGION.
   ****************************************************************************;
   IF XREGION IN (1,2,5) THEN XTNEXREG = 1;
   ELSE IF XREGION IN (3,4,6) THEN XTNEXREG = 2;
   ELSE IF XREGION IN (7,8,9,10,11,12,16) THEN XTNEXREG = 3;
   ELSE IF XREGION IN (13,14,15) THEN XTNEXREG = 4;

   IF XREGION      = 13 THEN XOCONUS = 1;
   ELSE IF XREGION = 14 THEN XOCONUS = 2;
   ELSE IF XREGION = 15 THEN XOCONUS = 3;
RUN;

******************************************************************************
* Create and attach XCATCH (Catchment Reporting variable) to final dataset.
* Note that dataset TMPXCTCH with XCATCH is created by this include file.
******************************************************************************;
%INCLUDE "XCATCH.INC"; * Requires input dataset called TEMP1;
PROC SORT DATA=TMPXCTCH; BY MPRID; RUN;

PROC SORT DATA=IN2008.HCS08A_1(DROP=XCATCH) OUT=HCS08A_1;
   BY MPRID;
RUN;

DATA OUT.XCATCH08;
   MERGE HCS08A_1(IN=IN1) TMPXCTCH(IN=IN2);
   BY MPRID;
   FORMAT _ALL_;
   KEEP MPRID XCATCH QUARTER;
RUN;

TITLE1 "Annual DOD Health Care Survey Database (6244-300)";
TITLE2 "Program Name: Fix2008XCATCH.SAS By Keith Rathbun";
TITLE3 "Program Inputs: 2008 HCSDB sample and analysis files";
TITLE4 "Program Output: XCATCH08.SD2 - FY 2008 Combined XCATCH dataset";

PROC FREQ;
   TABLES XCATCH /MISSING LIST;
RUN;
```

F.18 WEIGHTING\XCATCH.INC - CREATE DETAILED CACSMPL FOR ANNUAL REPORT CARDS - ANNUAL.

```
******************************************************************************
*
* PROGRAM:   XCATCH.INC
* TASK:      DOD HEALTH CARE SURVEY ANALYSIS (6077-300)
* PURPOSE:   CREATE DETAILED CACSMPL FOR ANNUAL REPORT CARDS
*
* WRITTEN:   01/20/2004 BY KEITH RATHBUN
*
* MODIFIED:  1) 02/14/2005 BY LUCY LU. RENAME STEP1Q.INC TO XCATCH.INC
*            2) 03/10/2005 BY LUCY LU, REVISED PROGRAM TO RUN 2002 AND 2003 FILES
*            3) 01/06/2006 BY KEITH RATHBUN.  Updated for 2006.  Removed
*                PROCESS macro.
*            4) 11/16/2006 BY KEITH RATHBUN. Changed XCATCHno collapsement
*                requirement to be less than 80 instead of 20 for this
*                annual version of XCATCH.INC.
*
*
* INPUTS:    1) TEMP1.sas7bdat - Temporary SAS dataset
*            2) TMA.sas7bdat - TMA-provided catchment definitions
*
* OUTPUT:    1) TEMP.sas7bdat  - Temporary SAS dataset
*
* NOTES:     1) This program is setup to run for all survey years as long
*               as the necessary variables are passed to it in TEMP1.
*            2) Required variables in TEMP1 dataset include the following:
*               MPRID, ENRID, PCM, DCATCH, D_PAR, D_HEALTH, and D_FAC.
*
* INCLUDES:  1) AssignGEOCELL.inc
*            2) AssignCOM_GEO.inc
*
******************************************************************************;

%LET smplqtr=Q4FY2009;

LIBNAME TMA V9 "..\..\..\&smplqtr\DATA\AFINAL";
DATA TEMP(KEEP=MPRID GEOCELL PCM ENRID XTNEXREG XSERVAFF XOCONUS PATCAT);
   SET TEMP1;
   BY MPRID;
   if pcm = 'MTF' then do;
      %INCLUDE "..\..\..\&smplqtr\Programs\Sampling\AssignGeoCell.inc";
      else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')   or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195') or ('6700' <= enrid <= '6881') or enrid='0000'
         then geocell=dcatch; *administrative assignment 1976-1980 added q4 2002, 6700-6881
added q1 2004,
                           0000 added q1,2005;
     else if ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919')
         then geocell = dcatch; *Managed care contractor assignment, added in q1 2005; *8001-
8036 added q2 2005;
      else if ('3031' <= enrid <= '3057')
         then geocell = dcatch; ***On board ship***;
      else if enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208',
'0250',
                        '0449', '0626', '0012')
         then geocell = dcatch; ***Inactive***;  *0626 added q2 2003, 0012 added q4 2003,
                                              0041, 0044, 0082, 0111, 0213, 0235, 0585 added
q2 2005;
      else if enrid = ' ' then geocell = dcatch; ***enrolled, but missing ENRID, added q2
2005***;
      ******************************************************************;
      else if ('0190' <= enrid <='0199') then geocell = dcatch;**BYDON;
      ******************************************************************;
      else geocell = enrid;
   end;
   else if patcat='ACTDTY' then geocell=dcatch; /*Added in q1fy2007, Put the rest of ACTDTY in
their dcatch for sampling purpose*/
   else geocell=dcatch;
RUN;

PROC SORT DATA=TEMP; BY GEOCELL; RUN;
```

```
data TMA (keep = geocell d_par d_fac d_instal d_health d_dmis servaff);
   set TMA.TMA;
   rename facility_Type_Code   =d_fac
          installation_Name    =d_instal
          dmis_facility_Name   =d_dmis
          facility_Service_Code=servaff ;
   length d_par $4.;
   d_par = DMIS_PARENT_ID;
   length geocell $4.;
   geocell = DMIS_ID;
   length d_health $2.;
   d_health = HEALTH_Service_region;
run;

PROC SORT DATA=TMA; BY GEOCELL; RUN;

DATA TEMP;
   MERGE TEMP(IN=IN1) TMA(IN=IN2);
   BY GEOCELL;
   LENGTH FLAG $15;
   IF IN1 AND IN2 THEN FLAG = "BOTH";
   ELSE IF IN1 THEN FLAG = "HCSDB ONLY";
   ELSE FLAG = "TMA XLS ONLY";
   IF IN1;
RUN;

PROC FREQ;
   TABLES FLAG /MISSING LIST;
RUN;

DATA TEMP(KEEP=MPRID XCATCH XTNEXREG XSERVAFF XOCONUS);
   SET TEMP;
   LENGTH XCATCH 8;
   com_geo = geocell;
   if pcm = 'MTF' then do;
      %INCLUDE "..\..\..\&smplqtr\Programs\Sampling\AssignCOM_GEO.inc";
      else if ('1976' <= enrid <= '1980' ) or ( '6301' <= enrid <= '6323' ) or
         ('6991' <= enrid <= '6994')    or ('6501' <=enrid <='6512') or
         ('7166' <= enrid <= '7195') or ( '6700' <= enrid <= '6881' ) or enrid = '0000' or
         ('8001' <= enrid <= '8036') or ('6901' <= enrid <= '6919') or
         ('3031' <= enrid <= '3057') or
         enrid in ('0002', '0041', '0044', '0082', '0111', '0213', '0235', '0585', '5208',
'0250',
                   '0449', '0626', '0012') or
         ('0190' <= enrid <='0199') then com_geo = geocell;
      else com_geo = d_par;
   end;
   else if patcat='ACTDTY' then com_geo=d_par;

   if d_fac='NONCAT' or d_fac='TGRO' or d_fac="TPR" then do;
      if d_health in ('01','02','05','17') then com_geo = '9901';
      else if d_health in ('03','04','06','18') then com_geo = '9902';
      else if d_health in ('07','08','09','10','11','12','19') then com_geo = '9903';
      else if d_health in ('00','13','14','15') then com_geo = '9904';
   end;
   *******************************************************************************;
   ***d_fac="TPR" and d_health = '17', '18', '19' were added above for Q4, 2004,  ***;
   ***since we got the new regions 17(North T_NEX),18(South T_NEX),19(West T_NEX).***;
   *******************************************************************************;

   *** If the facility is unknown then set com_geo indicates unknown facility ***;
   *** '0999' added 03/15 to account for id 6992;
   if com_geo in ('9900', '0999', '0998',' ') then com_geo = '9904';

   **************************************************************************;
   ***Made the following 9 Navy sites stand alone in q1,2005:        ***;
   ***'0026','0068','0231','0378','0387','0405','0407','0508','6215'***;
   **************************************************************************;
   if   geocell   in   ('0026','0068','0231','0378','0387','0405','0407','0508','6215')   then
com_geo=geocell;

   xcatch = INPUT(com_geo,8.);
   label xcatch = "XCATCH - Catchment Area (Reporting)";
RUN;
```

```
PROC SORT DATA=TEMP; BY XCATCH; RUN;

PROC SUMMARY DATA=TEMP NWAY;
     CLASS XCATCH;
     OUTPUT OUT=TEMPCNT(DROP=_TYPE_ rename=_FREQ_=XCATCHno);
RUN;

PROC PRINT DATA=TEMPCNT;
RUN;

DATA TMPXCTCH(KEEP=MPRID XCATCH);
   MERGE TEMPCNT TEMP;
   BY XCATCH;

   /*** JMA 10/25/2006 Values of Xcatch which occur less than 20 times in
    *** the dataset will be updated
    ***/


   IF XCATCHno < 80 THEN DO;
      XCATCH=SUM(9000,100*XTNEXREG,XSERVAFF);

      IF XOCONUS=1 THEN XCATCH=SUM(9400,XSERVAFF);
      IF XOCONUS=2 THEN XCATCH=SUM(9500,XSERVAFF);
      IF XOCONUS=3 THEN XCATCH=SUM(9600,XSERVAFF);
   END;

RUN;
```

```
*****************************************************************************
*
* PROGRAM:  CreateFY07_08.SAS
* PURPOSE:  Create FY2007 and FY2008 databases with all of the necessary
*           reporting variables.
* WRITTEN:  October 25, 2006 By Keith Rathbun
*
* MODIFIED: 1) September 2007 by Lucy Lu for 2007 annual data
*           2) November 6, 2007 by Keith Rathbun, corrections made.
*           3) October 21, 2008 by Mike Rudacille, updated for 2008.
*              4) September 17, 2009 by Emma Ernst, updated for 2009.
*
* TASK:     2009 DoD Database Development (6401-903)
*
* INPUTS:   1) HCSyyA_1.SD2 - Combined Annual CY 2007-2008 HCSDB datasets
*              (Where yy = 07-08)
*
* OUTPUTS:  1) HCSFYyyA.SD2 - FY 2007-2008 HCSDB datasets with XCATCH
*              (Where yy = 07-08)
*
* NOTES:    1) Reconstruct XCATCH for FY2007 and FY2008.  Also, keep all of
*              the necessary beneficiary report variables.
*           2) Fix2007XCATCH.SAS and Fix2008XCATCH.SAS
*              must be run prior to running this program.  These programs
*              generate XCATCY07.SD2 and XCATCY08.SD2.
*
*****************************************************************************;
OPTIONS NOFMTERR NOCENTER LS=132 PS=80 COMPRESS=YES;
LIBNAME OUT V612 "..\..\DATA";
LIBNAME OUT2 "..\..\DATA";
LIBNAME IN2007 V612 "..\..\..\2007\DATA";
LIBNAME IN2008   "..\..\..\2008\DATA";

*****************************************************************************
* Rename 2008 beneficiary report variables to be consistent with 2009 names.
*****************************************************************************;
%MACRO RENAME8TO9();
    RENAME H08008=H09019; *Personal Doctor;
    RENAME H08066=H09063; *Health Status;
    RENAME H08007=H09004; *How Long in Health Plan;
    RENAME H08013=H09029; *Problems Getting Referral to Specialist;
    RENAME H08027=H09033; *Problems Getting Necessary Care;
    RENAME H08022=H09010; *Wait for Routine Visit;
    RENAME H08019=H09007; *Wait for Urgent Care;
    RENAME H08033=H09021; *Listens Carefully;
    RENAME H08034=H09022; *Explains so You can Understand;
    RENAME H08035=H09023; *Shows Respect;
    RENAME H08036=H09024; *Spends Time with You;
    RENAME H08040=H09045; *Claims Handled in a Reasonable Time;
    RENAME H08041=H09046; *Claims Handled Correctly;
    RENAME H08037=H09018; *Health Care;
    RENAME H08048=H09047; *Health Plan;
    RENAME H08009=H09027; *Primary Care Manager;
    RENAME H08015=H09031; *Specialty Care;
    RENAME H08055=H09053;
    RENAME H08038=H09005;
    RENAME H08008=H09019;
    RENAME H08006=H09003; *KRR added 11/6/2007;
    RENAME H08055=H09053;
    RENAME H08053=H09052;
    RENAME H08052=H09051;
    RENAME CONUS=USA;
%MEND;

*****************************************************************************
* Rename 2007 beneficiary report variables to be consistent with 2009 names.
*****************************************************************************;
%MACRO RENAME7TO9();
    RENAME H07008=H09019; *Personal Doctor;
    RENAME H07066 = H09063; *Health Status;
```

```
       RENAME H07007 = H09004; *How Long in Health Plan;
       RENAME H07013 = H09029; *Problems Getting Referral to Specialist;
       RENAME H07027 = H09033; *Problems Getting Necessary Care;
       RENAME H07022 = H09010; *Wait for Routine Visit;
       RENAME H07019 = H09007; *Wait for Urgent Care;
       RENAME H07033 = H09021; *Listens Carefully;
       RENAME H07034 = H09022; *Explains so You can Understand;
       RENAME H07035 = H09023; *Shows Respect;
       RENAME H07036 = H09024; *Spends Time with You;
       RENAME H07040 = H09045; *Claims Handled in a Reasonable Time;
       RENAME H07041 = H09046; *Claims Handled Correctly;
       RENAME H07037 = H09018; *Health Care;
       RENAME H07048 = H09047; *Health Plan;
       RENAME H07009 = H09027; *Primary Care Manager;
       RENAME H07015 = H09031; *Specialty Care;
       RENAME H07055 = H09053;
       RENAME H07038 = H09005;
       RENAME H07008 = H09019;
       RENAME H07006 = H09003; *KRR added 11/6/2007;
        RENAME H07055 = H09053;
        RENAME H07053 = H09052;
        RENAME H07052 = H09051;
        RENAME CONUS=USA;
    %MEND;

    ****************************************************************************
    * Get beneficiary report variables.
    ****************************************************************************;
    %MACRO GETRVAR();
        %DO YR = 7 %TO 8;
            DATA CAT&YR;
               SET OUT.XCATCH0&YR;
            RUN;
            DATA TEMP&YR(KEEP=MPRID STRATUM FWRWT DAGEQY FIELDAGE
                    XTNEXREG SERVAFF USA ENBGSMPL SREDA XSEXA XBNFGRP
                    STRATUM XINS_COV XENR_PCM XREGION XBMICAT QUARTER DBENCAT
                    HP_BP HP_MAMOG HP_PAP HP_PRNTL HP_SMOKH MPCSMPL
                    H09019 H09021 H09022 H09023 H09024 H09029 H09033 H09007 H09010
                            H09045 H09046 H09063 H09018 H09047 H09027 H09031 H09003 H09004
                            H09053 H09052 H09051 CFWT);
                LENGTH QUARTER $8;
                SET IN200&YR..HCS0&YR.A_1;
                FORMAT _ALL_;
                %IF &YR = 7 %THEN %DO;
                   %RENAME7TO9;
                %END;
                %ELSE %IF &YR = 8 %THEN %DO;
                   %RENAME8TO9;
                %END;
            RUN;
            PROC SORT DATA=CAT&YR; BY MPRID; RUN;
            PROC SORT DATA=TEMP&YR; BY MPRID; RUN;
            DATA TEMP&YR;
               MERGE TEMP&YR CAT&YR;
               BY MPRID;
            RUN;
        %END;
    %MEND GETRVAR;

    %GETRVAR;

    ****************************************************************************
    * Construct FY2007 file.
    ****************************************************************************;
    DATA OUT2.HCSFY07A;
       SET TEMP7;
       BY MPRID;
       ****************************************************************************
       * Create XOCONUS for  Europe, Pacific and Latin America
       ****************************************************************************;
       IF      XREGION = 13 THEN XOCONUS = 1;
       ELSE IF XREGION = 14 THEN XOCONUS = 2;
       ELSE IF XREGION = 15 THEN XOCONUS = 3;
    RUN;
```

```
*****************************************************************************
* Construct FY2008 file.
****************************************************************************;
DATA OUT2.HCSFY08A;
   SET TEMP8;
   BY MPRID;
   *****************************************************************************
   * Create XOCONUS for  Europe, Pacific and Latin America
   ****************************************************************************;
   IF      XREGION = 13 THEN XOCONUS = 1;
   ELSE IF XREGION = 14 THEN XOCONUS = 2;
   ELSE IF XREGION = 15 THEN XOCONUS = 3;
RUN;

TITLE1  "PROGRAM: CreateFY06_07.SAS - Create  FY2006  and  FY2007  databases  with  reporting
variables.";
TITLE2 "WRITTEN: October 25, 2006 By Keith Rathbun";
TITLE3 "TASK:    2009 DoD Database Development (6401-903)";

TITLE4 "HCSFY07A dataset";
PROC CONTENTS DATA=OUT.HCSFY07A; RUN;

PROC FREQ DATA=OUT.HCSFY07A;
   TABLES QUARTER*XTNEXREG*XREGION*CONUS /MISSING LIST;
RUN;

TITLE4 "HCSFY08A dataset";
PROC CONTENTS DATA=OUT.HCSFY07A; RUN;

PROC FREQ DATA=OUT.HCSFY08A;
   TABLES QUARTER*XTNEXREG*XREGION*CONUS /MISSING LIST;
RUN;
```

F.20   WEIGHTING\CREPWT.SAS - CALCULATE COMBINED REPLICATE WEIGHTS - ANNUAL.

```
DM "CLEAR OUTPUT;CLEAR LOG";
****************************************************************************
* PROGRAM: L:\2009\Programs\Weighting\CREPWT.SAS
* TASK:    2009 DOD QUARTERLY HEALTH CARE SURVEY
* PURPOSE: CALCULATE COMBINED ANNUAL REPLICATE WEIGHTS FOR DOD SURVEY - New Weights
*          REQUESTED BY DON JANG.
* CREATED: 12/19/2001 by Esther M Friedman
* UPDATED: 02/09/2006 by Haixia Xu for 2005 annual weighting - new weights
*          10/10/2006 by Haixia Xu for 2006 annual weighting - new weights
*          10/09/2007 by Haixia Xu for 2007 annual weighting - new weights
*          10/09/2008 by Haixia Xu for 2008 annual weighting - new weights
*          10/26/2009 by H. Xu for 2009 annual weighting.
*
* Note:    1) For the quarterly weights in 2009,
*          in q1 and q2, 3 sets of weights were constructed: V3, V4, combined.
*          in q3 and q4, 1 set of weights were constructed.
*          2) Therefore, for the 2009 annual weights,
*          we contruct 3 sets of final annual weights, and annual replicate weights as follows:
*             For V3, we will have construct 120 replicates weights using q1, and q2 data. The
factor will be 1/2.
*             For V4 and combined, we will have 240 replicate weights using q1-q4. The factor wil
be 1/4.
*
*
* INPUTS:  framea.sas7bdat - Quarterly frame files
*          REPWTP.sas7bdat - Quarterly new weights
*
* OUTPUTS: crepwt.sd2 - Combined anuual replicates for new weights
*
****************************************************************************;


OPTIONS PS=79 LS=132 COMPRESS=no errors=10 NOCENTER mprint noxwait XSYNC /*symbolgen mlogic*/
OBS=MAX FORMDLIM='=';

%LET YEAR=2009;
%LET XLSPATH = L:\2009\Programs\Weighting;
%LET XLSFILE = CREPWT;

LIBNAME IN1 v8  "L:\Q1FY&year.t\data\afinal"; *repwtp.sas7bdat;
LIBNAME IN2 v8  "L:\Q2FY&year.t\data\afinal";
LIBNAME IN3 v8  "L:\Q3FY&year.t\data\afinal";
LIBNAME IN4 v8  "L:\Q4FY&year.\data\afinal";
LIBNAME INf1 v8  "L:\Q1FY&year.\data\afinal"; *framea.sas7bdat;
LIBNAME INf2 v8  "L:\Q2FY&year.\data\afinal";
LIBNAME INf3 v8  "L:\Q3FY&year.\data\afinal";
LIBNAME INf4 v8  "L:\Q4FY&year.\data\afinal";
LIBNAME OUT v8  "L:\&year.\Data";   *crepwt.sas7bdat;

%include "L:\Q1FY&year.\programs\weighting\newweights\design_effects_unequal_weights.sas";

title1 "Program: CREPWT.SAS";
title2 "Purpose: CREATES ANNUAL COMBINED WEIGHT AND COMBINED REPLICATED WEIGHT";

*_____
 Merge the four quarterly weight files (The first 3 quarters are trickle files)
_____;

%MACRO DO_Q1Q2(QTR);
PROC SORT DATA = IN&QTR..REPWTPV3V4
   (KEEP = MPRID FNSTATUS QFLAG POSTCELL BWT FWRWT FWRWT1-FWRWT60 FWRWT_V3 FWTV3_1-FWTV3_60
FWRWT_V4 FWTV4_1-FWTV4_60)
   OUT=REPWTQ&QTR.;
   BY MPRID;
RUN;
%MEND DO_Q1Q2;
%DO_Q1Q2(1);
%DO_Q1Q2(2);

%MACRO DO_Q3Q4(QTR);
```

```
PROC  SORT  DATA  =  IN&QTR..REPWTP(KEEP  =  MPRID  FNSTATUS  POSTCELL  BWT  FWRWT  FWRWT1-FWRWT60)
OUT=REPWTQ&QTR.;
   BY MPRID;
RUN;
%MEND DO_Q3Q4;
%DO_Q3Q4(3);
%DO_Q3Q4(4);

DATA REPWT;
   SET REPWTQ1(IN=A) REPWTQ2(IN=B) REPWTQ3(IN=C) REPWTQ4(IN=D);
   BY MPRID;
   IF A THEN QUARTER=1;
   ELSE IF B THEN QUARTER=2;
   ELSE IF C THEN QUARTER=3;
   ELSE IF D THEN QUARTER=4;
   LABEL QUARTER = "DoD fisical quarter indicator";
RUN;

TITLE3 "Annual replicate file";
PROC FREQ DATA=REPWT;
   TABLES QUARTER*QFLAG QFLAG*QUARTER*FNSTATUS
          QUARTER FNSTATUS FNSTATUS*QUARTER/MISSING LIST;
RUN;


*_____
 Macro to create the annual weight for V3, V4 and combined
 Use Equal Weighting Method:  Divide each quarterly weight by 4
_____;

%MACRO DO_ANNUAL_WT(VERSION=, QTRWT=, ANNUALWT=, FACTOR=);
   DATA REPWT;
      SET REPWT;
      %IF &VERSION. = V3 OR &VERSION. = COMBINED %THEN %DO;
         &ANNUALWT. = &QTRWT./&FACTOR.;
      %END;
      %ELSE %IF &VERSION. = V4 %THEN %DO;
         IF QUARTER IN (1,2) THEN &ANNUALWT. = &QTRWT./&FACTOR.;
         ELSE IF QUARTER IN (3,4) THEN &ANNUALWT. = FWRWT/&FACTOR.;
      %END;
      LABEL &ANNUALWT.= "Annual weight for &version.";
   RUN;
   %MACRO CHK_WTS(TABVARS=, BYVARS=, INDEX=);
      PROC FREQ DATA=REPWT NOPRINT;
         TABLES          &TABVARS./MISSING          LIST          OUT=T&INDEX._Quw(DROP=PERCENT
RENAME=(COUNT=UWCNT_&QTRWT.));
         WHERE &QTRWT.^=.;
      RUN;
      PROC FREQ DATA=REPWT NOPRINT;
         TABLES          &TABVARS./MISSING          LIST          OUT=T&INDEX._Auw(DROP=PERCENT
RENAME=(COUNT=UWCNT_&ANNUALWT.));
         WHERE &ANNUALWT.^=.;
      RUN;
      PROC FREQ DATA=REPWT NOPRINT;
         TABLES       &TABVARS./MISSING       LIST       OUT=T&INDEX._Q(RENAME=(COUNT=CNT_&QTRWT.
PERCENT=PCT_&QTRWT.));
         WEIGHT &QTRWT.;
      RUN;
      PROC FREQ DATA=REPWT NOPRINT;
         TABLES       &TABVARS./MISSING       LIST       OUT=T&INDEX._A(RENAME=(COUNT=CNT_&ANNUALWT.
PERCENT=PCT_&ANNUALWT.));
         WEIGHT &ANNUALWT.;
      RUN;
      DATA T&INDEX._QA_&VERSION.;
         MERGE T&INDEX._Quw(IN=A) T&INDEX._Auw(IN=B) T&INDEX._Q(IN=C) T&INDEX._A(IN=D);
         BY &BYVARS.;
      RUN;
   %MEND CHK_WTS;
   %CHK_WTS(TABVARS=QUARTER, BYVARS=QUARTER, INDEX=Q);
   %CHK_WTS(TABVARS=FNSTATUS, BYVARS=FNSTATUS, INDEX=F);
   %CHK_WTS(TABVARS=FNSTATUS*QUARTER, BYVARS=FNSTATUS QUARTER, INDEX=FQ);

   TITLE3 "Checks for &ANNUALWT.for &VERSION. AND &QTRWT. for fnstatus=11";
   PROC PRINT DATA=REPWT(OBS=20);
```

```
        VAR QFLAG QUARTER &ANNUALWT. &QTRWT.;
        WHERE FNSTATUS=11;
     RUN;
     TITLE3 "Checks for the quarterly weight &QTRWT. by quarter for fnstatus=11";
     PROC SORT DATA=REPWT;
        BY QUARTER;
     RUN;
     PROC MEANS DATA=REPWT NOPRINT;
        BY QUARTER;
        VAR &QTRWT.;
        WHERE FNSTATUS=11;
        OUTPUT  OUT=CHK_&VERSION.(DROP=_FREQ_ _TYPE_) N=N NMISS=NMISS SUM=SUM MEAN=MEAN MIN=MIN
MAX=MAX Q1=Q1 MEDIAN=MEDIAN Q3=Q3;
     RUN;
     DATA CHK_&VERSION.;
        SET CHK_&VERSION.;
        LENGTH VERSION $8;
        VERSION="&VERSION.";
     RUN;
     TITLE3 "Checks for &ANNUALWT. for &version. for fnstatus=11";
     PROC UNIVARIATE DATA=REPWT;
        VAR &ANNUALWT.;
        WHERE FNSTATUS=11;
     RUN;
%MEND DO_ANNUAL_WT;

%DO_ANNUAL_WT(VERSION=V3, QTRWT=FWRWT_V3, ANNUALWT=CFW_V3, FACTOR=2);
%DO_ANNUAL_WT(VERSION=V4, QTRWT=FWRWT_V4, ANNUALWT=CFW_V4, FACTOR=4);
%DO_ANNUAL_WT(VERSION=COMBINED, QTRWT=FWRWT, ANNUALWT=CFW, FACTOR=4);

*_____
 Check the annual weight for V3, V4 and combined
_____;


%MACRO ALLVERSIONS(BYVARS=,INDEX=,STARTROW=,ENDROW=);
   DATA T&INDEX._QA_ALLVERSIONS;
      MERGE T&INDEX._QA_V3 T&INDEX._QA_V4 T&INDEX._QA_COMBINED;
      BY &BYVARS.;
   RUN;
   TITLE3 "Weighted sum using quarterly and annual weights for all 3 versions";
   PROC PRINT DATA=T&INDEX._QA_ALLVERSIONS;
      VAR &BYVARS.
          UWCNT_FWRWT_V3 UWCNT_CFW_V3
          UWCNT_FWRWT_V4 UWCNT_CFW_V4
          UWCNT_FWRWT    UWCNT_CFW
          CNT_FWRWT_V3 CNT_CFW_V3 PCT_FWRWT_V3 PCT_CFW_V3
          CNT_FWRWT_V4 CNT_CFW_V4 PCT_FWRWT_V4 PCT_CFW_V4
          CNT_FWRWT    CNT_CFW    PCT_FWRWT    PCT_CFW;
      SUM UWCNT_FWRWT_V3 UWCNT_CFW_V3
          UWCNT_FWRWT_V4 UWCNT_CFW_V4
          UWCNT_FWRWT    UWCNT_CFW
          CNT_FWRWT_V3 CNT_CFW_V3 PCT_FWRWT_V3 PCT_CFW_V3
          CNT_FWRWT_V4 CNT_CFW_V4 PCT_FWRWT_V4 PCT_CFW_V4
          CNT_FWRWT    CNT_CFW    PCT_FWRWT    PCT_CFW;
      FORMAT UWCNT_FWRWT_V3 UWCNT_CFW_V3
             UWCNT_FWRWT_V4 UWCNT_CFW_V4
             UWCNT_FWRWT    UWCNT_CFW  6.
             CNT_FWRWT_V3 CNT_CFW_V3 PCT_FWRWT_V3 PCT_CFW_V3
             CNT_FWRWT_V4 CNT_CFW_V4 PCT_FWRWT_V4 PCT_CFW_V4
             CNT_FWRWT    CNT_CFW    PCT_FWRWT    PCT_CFW 11.2;
   RUN;

   FILENAME RAW DDE "EXCEL|SHEET1!R&StartRow.C1:R&EndRow.C14";
   DATA _NULL_;
      SET T&INDEX._QA_ALLVERSIONS;
      FILE RAW NOTAB LRECL=999 dlm='09'x;
      PUT &BYVARS.
          %IF &BYVARS. = QUARTER OR &BYVARS. = FNSTATUS %THEN %DO; '09'X %END;
          UWCNT_FWRWT_V3 CNT_FWRWT_V3
          UWCNT_CFW_V3    CNT_CFW_V3
          UWCNT_FWRWT_V4 CNT_FWRWT_V4
          UWCNT_CFW_V4    CNT_CFW_V4
          UWCNT_FWRWT     CNT_FWRWT
          UWCNT_CFW       CNT_CFW;
```

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```
   RUN;
%MEND ALLVERSIONS;

OPTIONS ORIENTATION=LANDSCAPE;


X "COPY &xlspath.\&XLSFILE._template.xls &xlspath.\&XLSFILE..xls";
X "START &xlspath.\&XLSFILE..xls";

%ALLVERSIONS(BYVARS=QUARTER, INDEX=Q, STARTROW=6, ENDROW=9);
%ALLVERSIONS(BYVARS=FNSTATUS, INDEX=F,STARTROW=12, ENDROW=18);
%ALLVERSIONS(BYVARS=FNSTATUS QUARTER, INDEX=FQ, STARTROW=21, ENDROW=48);

FILENAME CMDS DDE "EXCEL|SYSTEM";
   DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN;

DATA CHK;
   SET CHK_V3 CHK_V4 CHK_COMBINED;
RUN;
TITLE3 "Distribution of the quarterly weights for fnstatus=11";
PROC PRINT DATA=CHK;
   VAR VERSION QUARTER N NMISS SUM MEAN MIN MAX Q1 MEDIAN Q3;
RUN;

*_____
 Macro to create the annual replicate weight for V3, V4 and combined
_____;

OPTION ORIENTATION=PORTRAIT COMPRESS=YES;

%MACRO  DO_ANNUAL_REPWT(VERSION=, QTRWT=, QTRREPWT=, ANNUALNUMREP=, ANNUALWT=, ANNUALREPWT=,
FACTOR=);
   DATA CREPWT_&VERSION.(DROP=REP);
      SET REPWT;
      ARRAY FWR[60] FWRWT1-FWRWT60;
      ARRAY REPWT[60] &QTRREPWT.1-&QTRREPWT.60;
      ARRAY ANNUAL_REPWT[&ANNUALNUMREP.] &ANNUALREPWT.1-&ANNUALREPWT.&ANNUALNUMREP.;

      DO REP = 1 TO &ANNUALNUMREP.;
         %IF &VERSION. = V3 %THEN %DO;
            IF 1<= REP <=60 THEN DO;
               IF QUARTER =2 THEN ANNUAL_REPWT[REP]=&QTRWT.;
               ELSE ANNUAL_REPWT[REP]=REPWT[REP];
            END;
            ELSE IF 61<= REP <=120 THEN DO;
               IF QUARTER =1 THEN ANNUAL_REPWT[REP]=&QTRWT.;
               ELSE ANNUAL_REPWT[REP]=REPWT[REP-60];
            END;
         %END;
         %ELSE %IF &VERSION. = V4 %THEN %DO;
            IF 1<= REP <=60 THEN DO;
               IF QUARTER = 1 THEN ANNUAL_REPWT[REP]=REPWT[REP];
               ELSE IF QUARTER = 2 THEN ANNUAL_REPWT[REP]=&QTRWT.;
               ELSE IF QUARTER IN (3,4) THEN ANNUAL_REPWT[REP]=FWRWT;
            END;
            ELSE IF 61<= REP <=120 THEN DO;
               IF QUARTER = 1 THEN ANNUAL_REPWT[REP]=&QTRWT.;
               ELSE IF QUARTER = 2 THEN ANNUAL_REPWT[REP]=REPWT[REP-60];
               ELSE IF QUARTER IN (3,4) THEN ANNUAL_REPWT[REP]=FWRWT;
            END;
            ELSE IF 121<= REP <=180 THEN DO;
               IF QUARTER IN (1,2) THEN ANNUAL_REPWT[REP]=&QTRWT.;
               ELSE IF QUARTER = 3 THEN ANNUAL_REPWT[REP]=FWR[REP-120];
               ELSE IF QUARTER = 4 THEN ANNUAL_REPWT[REP]=FWRWT;
            END;
            ELSE IF 181<= REP <=240 THEN DO;
               IF QUARTER IN (1,2) THEN ANNUAL_REPWT[REP]=&QTRWT.;
               ELSE IF QUARTER = 3 THEN ANNUAL_REPWT[REP]=FWRWT;
               ELSE IF QUARTER = 4 THEN ANNUAL_REPWT[REP]=FWR[REP-180];
            END;
```

```
        %END;
        %ELSE %IF &VERSION. = COMBINED %THEN %DO;
           IF 1<= REP <=60 THEN DO;
              IF QUARTER IN (2,3,4) THEN ANNUAL_REPWT[REP]=&QTRWT.;
              ELSE ANNUAL_REPWT[REP]=REPWT[REP];
           END;
           ELSE IF 61<= REP <=120 THEN DO;
              IF QUARTER IN (1,3,4) THEN ANNUAL_REPWT[REP]=&QTRWT.;
              ELSE ANNUAL_REPWT[REP]=REPWT[REP-60];
           END;
           ELSE IF 121<= REP <=180 THEN DO;
              IF QUARTER IN (1,2,4) THEN ANNUAL_REPWT[REP]=&QTRWT.;
              ELSE ANNUAL_REPWT[REP]=REPWT[REP-120];
           END;
           ELSE IF 181<= REP <=240 THEN DO;
              IF QUARTER IN (1,2,3) THEN ANNUAL_REPWT[REP]=&QTRWT.;
              ELSE ANNUAL_REPWT[REP]=REPWT[REP-180];
           END;
        %END;
        ANNUAL_REPWT[REP] = ANNUAL_REPWT[REP]/&FACTOR.;
     END;

     LABEL &ANNUALWT. = "Annual weight for &version."
           %DO I = 1 %TO &ANNUALNUMREP.;
              &ANNUALREPWT.&I. = "Annaul JK replicate weight &I. for &version."
           %END;;
  RUN;

  TITLE3 "Checking for the sum of the annual weight and annual replicate weight - &VERSION.";
  PROC MEANS DATA=CREPWT_&VERSION. N NMISS SUM MAXDEC=2;
     VAR &ANNUALWT. &ANNUALREPWT.1-&ANNUALREPWT.&ANNUALNUMREP.;
  RUN;
  PROC MEANS DATA=CREPWT_&VERSION. NOPRINT;
     VAR &ANNUALWT. &ANNUALREPWT.1-&ANNUALREPWT.&ANNUALNUMREP.;
     OUTPUT OUT=SUMS SUM=&ANNUALWT. &ANNUALREPWT.1-&ANNUALREPWT.&ANNUALNUMREP.;
  RUN;
  PROC TRANSPOSE DATA=SUMS OUT=T_SUMS;
     VAR &ANNUALWT. &ANNUALREPWT.1-&ANNUALREPWT.&ANNUALNUMREP.;
  RUN;
  PROC UNIVARIATE DATA=T_SUMS NORMAL;
     VAR COL1;
  RUN;

  PROC SORT DATA=CREPWT_&VERSION.(KEEP=MPRID &ANNUALREPWT.1-&ANNUALREPWT.&ANNUALNUMREP.);
     BY MPRID;
  RUN;
%MEND DO_ANNUAL_REPWT;

%DO_ANNUAL_REPWT(VERSION=V3, QTRWT=FWRWT_V3, QTRREPWT=FWTV3_, ANNUALNUMREP=120, ANNUALWT=CFW_V3,
ANNUALREPWT=CFWV3_, FACTOR=2);
%DO_ANNUAL_REPWT(VERSION=V4, QTRWT=FWRWT_V4, QTRREPWT=FWTV4_, ANNUALNUMREP=240, ANNUALWT=CFW_V4,
ANNUALREPWT=CFWV4_, FACTOR=4);
%DO_ANNUAL_REPWT(VERSION=COMBINED, QTRWT=FWRWT, QTRREPWT=FWRWT, ANNUALNUMREP=240, ANNUALWT=CFW,
ANNUALREPWT=CFW, FACTOR=4);

*_____
 Output the annual weight file
_____;

PROC SORT DATA=REPWT
    (KEEP=MPRID QFLAG QUARTER FNSTATUS POSTCELL BWT FWRWT FWRWT_V3 FWRWT_V4 CFW CFW_V3 CFW_V4
         FWRWT1-FWRWT60 FWTV3_1-FWTV3_60 FWTV4_1-FWTV4_60) OUT=CREPWT;
    BY MPRID;
RUN;
DATA OUT.CREPWT;
    MERGE CREPWT(IN=A) CREPWT_V3(IN=B) CREPWT_V4(IN=C) CREPWT_COMBINED(IN=D);
    BY MPRID;
    IF A AND B AND C AND D;
RUN;
TITLE3 "Contents of OUT.Crepwt";
PROC CONTENTS DATA=OUT.CREPWT;
RUN;

*_____
```

```
  Check the annual replicate weight
_____;

PROC FORMAT;
   VALUE FMTMISS . ='.'
                 OTHER='Nonmissing';
RUN;
TITLE3 "Check all quarterly/annual, full sample/replicate weights for all 3 versions";
PROC FREQ DATA=OUT.CREPWT;
   TABLES QFLAG*QUARTER*(FWRWT_V3 FWTV3_1-FWTV3_60
                        FWRWT_V4 FWTV4_1-FWTV4_60
                        FWRWT    FWRWT1-FWRWT60
                        CFW_V3   CFWV3_1-CFWV3_120
                        CFW_V4   CFWV4_1-CFWV4_240
                        CFW      CFW1-CFW240)/MISSING LIST;
   FORMAT FWRWT_V3 FWTV3_1-FWTV3_60
          FWRWT_V4 FWTV4_1-FWTV4_60
          FWRWT    FWRWT1-FWRWT60
          CFW_V3   CFWV3_1-CFWV3_120
          CFW_V4   CFWV4_1-CFWV4_240
          CFW      CFW1-CFW240 FMTMISS.;
RUN;

*_____
 Produce the design effects
 As per Nancy and Sonya's requests, check the deff for the annual wts to see
 how the quarterly weight affects the annual estimates.
_____;

%macro mergefiles(qrt=);

data frame&qrt.;
set inf&qrt..framea(keep=mprid enbgsmpl tnexreg d_health com_geo servaff);

***facility TNEX region***;
length TNEX_grp $1;
if d_health in ('00', '13', '14', '15') then TNEX_grp='O';
else if d_health in ('17', '01','05') then TNEX_grp='N';
else if d_health in ('18','04') then TNEX_grp='S';
else if d_health in ('19','08','11') then TNEX_grp='W';
*Correct the TNEX regions for com_geo 0047, 9001, 9002, 9003, 9004:
All the cases in the same com_geo should be in the same TNEX region, which is the region of the
com_geo;
if COM_GEO = '0047' then TNEX_grp='S';
else if COM_GEO = '9001' then TNEX_grp='N';
else if COM_GEO = '9002' then TNEX_grp='S';
else if COM_GEO = '9003' then TNEX_grp='W';
else if COM_GEO = '9004' then TNEX_grp='O';

if tnex_grp in ('N', 'S', 'W') then conus=1;
else if tnex_grp ='O' then conus=0;

run;

title3 "Check the construction TNEX_grp, conus for quarter &qrt.";
proc freq data=frame&qrt.;
tables TNEX_grp*d_health conus*tnex_grp/missing list;
run;

proc sort data=in&qrt..repwtp(keep=mprid) out=repwt; by mprid; run;
proc sort data=frame&qrt.; by mprid; run;

data merged&qrt.;
merge repwt(in=A) frame&qrt.(in=B);
by mprid;
if a and b;
run;

%mend mergefiles;

%mergefiles(qrt=1);
%mergefiles(qrt=2);
%mergefiles(qrt=3);
%mergefiles(qrt=4);
```

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```
data merged1234;
set merged1 merged2 merged3 merged4;
by mprid;
run;

data merged;
merge out.crepwt(in=A keep=mprid QFLAG fnstatus bwt fwrwt cfw fwrwt_v3 cfw_v3 fwrwt_v4 cfw_v4)
merged1234(in=B);
by mprid;
if a and b;
run;


**create dataset of completes only;
%MACRO DEFF(VERSION=, WT=, INDEX=);
data postwt_fnl;
    set merged;
    OVERALL=1;
    where fnstatus=11 &VERSION.;
run;
%design_effects_unequal_weights ( postwt_fnl, enbgsmpl, &WT., deff_overall, deff_enb_&INDEX. );
%design_effects_unequal_weights ( postwt_fnl, tnexreg,  &WT., deff_overall, deff_tnexreg_&INDEX.
);
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp, &WT., deff_overall, deff_tnexgrp_&INDEX.
);
%design_effects_unequal_weights ( postwt_fnl, conus,     &WT., deff_overall, deff_conus_&INDEX.
);
%design_effects_unequal_weights ( postwt_fnl, servaff,  &WT., deff_overall, deff_servaff_&INDEX.
);
%design_effects_unequal_weights ( postwt_fnl, TNEX_grp servaff,  &WT., deff_overall_&INDEX.,
deff_TNEXservaff_&INDEX. );
%design_effects_unequal_weights  (  postwt_fnl,  OVERALL,     &WT.,  deff_overall_&INDEX.,
deff_OVERALL_&INDEX. );

%MEND DEFF;
%DEFF(VERSION=%STR(), WT=CFW, INDEX=C);
%DEFF(VERSION=%STR(AND QFLAG=1), WT=CFW_V3, INDEX=V3);
%DEFF(VERSION=%STR(AND QFLAG^=1), WT=CFW_V4, INDEX=V4);

%MACRO DO_DE(DNAME=,VAR=);
DATA DE;
    MERGE   DEFF_&DNAME._C(IN=A   KEEP=&VAR.   _FREQ_   DESIGN_EFFECT   RENAME=(DESIGN_EFFECT=DE_C
_FREQ_=N_C))
          DEFF_&DNAME._V3(IN=B   KEEP=&VAR.   _FREQ_   DESIGN_EFFECT   RENAME=(DESIGN_EFFECT=DE_V3
_FREQ_=N_V3))
          DEFF_&DNAME._V4(IN=C   KEEP=&VAR.   _FREQ_   DESIGN_EFFECT   RENAME=(DESIGN_EFFECT=DE_V4
_FREQ_=N_V4));
    BY &VAR.;
RUN;
TITLE3 "&VAR. ";
PROC PRINT DATA=DE;
    VAR &VAR. N_C N_V3 N_V4 DE_C DE_V3 DE_V4;
    SUM N_C N_V3 N_V4;
RUN;
%MEND DO_DE;
%DO_DE(DNAME=ENB, VAR=ENBGSMPL);
%DO_DE(DNAME=TNEXREG, VAR=TNEXREG);
%DO_DE(DNAME=TNEXGRP, VAR=TNEX_GRP);
%DO_DE(DNAME=CONUS, VAR=CONUS);
%DO_DE(DNAME=SERVAFF, VAR=SERVAFF);
%DO_DE(DNAME=TNEXservaff, VAR=TNEX_GRP SERVAFF);
%DO_DE(DNAME=OVERALL, VAR=OVERALL);


*_____
 The End
_____;
```

F.21.A RESPONSE_RATE\ANNUAL_RR.SAS - COMBINE Q1-Q4 AND ANNUAL RESPONSE RATES INTO ONE EXCEL FILE.

```
*******************************************************************************
*
* PROGRAM: ANNUAL_RR.SAS
* TASK:    2006 DOD HEALTH CARE SURVEY ANALYSIS (6077-300)
* PURPOSE: Combine Q1-Q4 and annual response_rates.xls files
*          into one file called response_rates_annual.xls.
* WRITTEN: 03/15/2005 BY KEITH RATHBUN
*
* MODIFIED:
*
* INPUT:   1) RESPONSE_RATES.XLS files (Q1-Q4 and Annual)
*          2) EMPTY_ANNUAL.XLS file (empty template)
*
* OUTPUT:  1) RESPONSE_RATES_ANNUAL.XLS
*
* INCLUDES: None
*
* NOTES:
*
* 1) This program must be run in BATCH mode.  DO NOT modify the directory
*    references to be hard-wired to support interactive use.
*
*******************************************************************************;
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOXWAIT NOCENTER mprint mlogic symbolgen;

LIBNAME LIBRARY V612 "..\..\DATA\FMTLIB";

*******************************************************************************
* Assign Q1-Q4 and annual spreadsheet file names and year.
*******************************************************************************;
%LET FILE1 = ..\..\..\Q1FY2009t\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE2 = ..\..\..\Q2FY2009t\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE3 = ..\..\..\Q3FY2009t\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE4 = ..\..\..\Q4FY2009\PROGRAMS\RESPONSE_RATE\RESPONSE_RATES.XLS;
%LET FILE5 = RESPONSE_RATES.XLS;
%LET YEAR  = 2009;

TITLE1 "Program: ANNUAL_RR.SAS";
TITLE2 "Purpose: Combine Q1-Q4 and Annual Response Rate XLS files";

*******************************************************************************
* Assign sheetnames and establish global variables.
*******************************************************************************
* All of the response_rates.xls files must be populated with the following
* sheetnames (generated by TABLE02.SAS):
*******************************************************************************;

%LET DSN1  = TABLE02A;
*%LET DSN2  = XREGION;
%LET DSN2  = HAS_EMAIL;
%LET DSN3  = XOCONUS;
%LET DSN4  = USA;
%LET DSN5  = SEXSMPL;
%LET DSN6  = ENBGSMPL;
%LET DSN7  = CACSMPL;
%LET DSN8  = PATCAT;
%LET DSN9  = SERVAFF;
%LET DSN10 = SVCSMPL;
%LET DSN11 = XTNEXREG;
%LET DSN12 = PATCATSVCSMPL;
%LET DSN13 = PATCATSEXSMPL;
%LET DSN14 = XTNEXREGCACSMPL;
%LET DSN15 = PATCATHAS_EMAIL;
%LET DSN16 = USAPATCATHAS_EMAIL;

*******************************************************************************
* Macro used to read Q1-Q4 and annual spreadsheet files.
*******************************************************************************;
%MACRO READXLS(DSN=, NUMDOM=);
   %IF &NUMDOM LE 1 %THEN %DO; * Read 3 columns in sheet;
```

```
              FILENAME INDATA DDE "excel|&DSN!r5c1:r9999c3";
        %END;
        %ELSE %IF &NUMDOM = 2 %THEN %DO; * Read 4 columns in sheet;
              FILENAME INDATA DDE "excel|&DSN!r5c1:r9999c4";
        %END;
        %ELSE %IF &NUMDOM = 3 %THEN %DO; * Read 5 columns in sheet;
              FILENAME INDATA DDE "excel|&DSN!r5c1:r9999c5";
        %END;
        DATA &DSN.&I;
           INFILE INDATA DLM='09'X NOTAB LRECL=500 PAD MISSOVER DSD;
           LENGTH DOMAIN1-DOMAIN3 $40;
           LENGTH DSN $30;
           %IF &NUMDOM = 0 %THEN %DO;
              INPUT DOMAIN1 : $CHAR40.
                    RR      : 4.1
                    RRW     : 4.1;
              DOMAIN1 = "TABLE02A";
           %END;
           %IF &NUMDOM = 1 %THEN %DO;
              INPUT DOMAIN1 : $CHAR40.
                    RR      : 4.1
                    RRW     : 4.1;
           %END;
           %ELSE %IF &NUMDOM = 2 %THEN %DO;
              INPUT DOMAIN1 : $CHAR40.
                    DOMAIN2 : $CHAR40.
                    RR      : 4.1
                    RRW     : 4.1;
           %END;
           %ELSE %IF &NUMDOM = 3 %THEN %DO;
              INPUT DOMAIN1 : $CHAR40.
                    DOMAIN2 : $CHAR40.
                    DOMAIN3 : $CHAR40.
                    RR      : 4.1
                    RRW     : 4.1;
           %END;
           NUMDOM = &NUMDOM;
           FNUM = &I;
           DSN = "&DSN";
        RUN;
    %MEND READXLS;

    ****************************************************************************
    * Read Q1-Q4 and annual spreadsheet files.
    ****************************************************************************;
    %MACRO READIT;
       %GLOBAL I;
       %DO I = 1 %TO 5;
          X "START &&FILE&I";
          %READXLS(DSN=&DSN1,  NUMDOM=0);
          %READXLS(DSN=&DSN2,  NUMDOM=1);
          %READXLS(DSN=&DSN3,  NUMDOM=1);
          %READXLS(DSN=&DSN4,  NUMDOM=1);
          %READXLS(DSN=&DSN5,  NUMDOM=1);
          %READXLS(DSN=&DSN6,  NUMDOM=1);
          %READXLS(DSN=&DSN7,  NUMDOM=1);
          %READXLS(DSN=&DSN8,  NUMDOM=1);
          %READXLS(DSN=&DSN9,  NUMDOM=1);
          %READXLS(DSN=&DSN10, NUMDOM=1);
          %READXLS(DSN=&DSN11, NUMDOM=1);
          %READXLS(DSN=&DSN12, NUMDOM=2);
          %READXLS(DSN=&DSN13, NUMDOM=2);
          %READXLS(DSN=&DSN14, NUMDOM=2);
          %READXLS(DSN=&DSN15, NUMDOM=2);
          %READXLS(DSN=&DSN16, NUMDOM=3);

          ****************************************************************
          * Quit spreadsheet application.
          ****************************************************************;
          FILENAME CMDS DDE "EXCEL|SYSTEM";
          DATA _NULL_;
             FILE CMDS;
             PUT '[QUIT]';
          RUN;
```

```
      %END;
%MEND READIT;

%READIT;

*******************************************************************************
* Macro used to merge the Q1-Q4 and annual spreadsheet files by DOMAIN(s).
*******************************************************************************;
%MACRO MERGEIT(DSN=, NUMDOM=);
   %IF &NUMDOM LE 1 %THEN %DO;
       PROC SORT DATA=&DSN.1; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.2; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.3; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.4; BY DOMAIN1; RUN;
       PROC SORT DATA=&DSN.5; BY DOMAIN1; RUN;
   %END;
   %ELSE %IF &NUMDOM = 2 %THEN %DO;
       PROC SORT DATA=&DSN.1; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.2; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.3; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.4; BY DOMAIN1 DOMAIN2; RUN;
       PROC SORT DATA=&DSN.5; BY DOMAIN1 DOMAIN2; RUN;
   %END;
   %ELSE %IF &NUMDOM = 3 %THEN %DO;
       PROC SORT DATA=&DSN.1; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.2; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.3; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.4; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
       PROC SORT DATA=&DSN.5; BY DOMAIN1 DOMAIN2 DOMAIN3; RUN;
   %END;
   DATA MERGED_&DSN;
      MERGE &DSN.1(RENAME=(RR=RR1 RRW=RRW1))
            &DSN.2(RENAME=(RR=RR2 RRW=RRW2))
            &DSN.3(RENAME=(RR=RR3 RRW=RRW3))
            &DSN.4(RENAME=(RR=RR4 RRW=RRW4))
            &DSN.5(RENAME=(RR=RR5 RRW=RRW5));
      %IF &NUMDOM LE 1 %THEN %DO;
          BY DOMAIN1;
      %END;
      %ELSE %IF &NUMDOM = 2 %THEN %DO;
          BY DOMAIN1 DOMAIN2;
      %END;
      %ELSE %IF &NUMDOM = 3 %THEN %DO;
          BY DOMAIN1 DOMAIN2 DOMAIN3;
      %END;
   RUN;
%MEND MERGEIT;

*******************************************************************************
* Merge the Q1-Q4 and annual spreadsheet files by DOMAIN(s).
*******************************************************************************;
%MERGEIT(DSN=&DSN1,  NUMDOM=0);
%MERGEIT(DSN=&DSN2,  NUMDOM=1);
%MERGEIT(DSN=&DSN3,  NUMDOM=1);
%MERGEIT(DSN=&DSN4,  NUMDOM=1);
%MERGEIT(DSN=&DSN5,  NUMDOM=1);
%MERGEIT(DSN=&DSN6,  NUMDOM=1);
%MERGEIT(DSN=&DSN7,  NUMDOM=1);
%MERGEIT(DSN=&DSN8,  NUMDOM=1);
%MERGEIT(DSN=&DSN9,  NUMDOM=1);
%MERGEIT(DSN=&DSN10, NUMDOM=1);
%MERGEIT(DSN=&DSN11, NUMDOM=1);
%MERGEIT(DSN=&DSN12, NUMDOM=2);
%MERGEIT(DSN=&DSN13, NUMDOM=2);
%MERGEIT(DSN=&DSN14, NUMDOM=2);
%MERGEIT(DSN=&DSN15, NUMDOM=2);
%MERGEIT(DSN=&DSN16, NUMDOM=3);


*******************************************************************************
* Macro used to write the combined annual spreadsheet file for each DOMAIN/DSN.
*******************************************************************************;
%MACRO WRITEXLS(DSN=, NUMDOM=);
```

```
DATA _NULL_;
   SET MERGED_&DSN;
   ************************************************************************
   * Add values for each DOMAIN to each sheet.
   ************************************************************************;
   %IF &NUMDOM LE 1 %THEN %DO;
      FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c11";
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &YEAR";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN";     H2 = "Q1 RR"; H3 = "Q1 RRW";
         H4 = "Q2 RR";      H5 = "Q2 RRW";
         H6 = "Q3 RR";      H7 = "Q3 RRW";
         H8 = "Q4 RR";      H9 = "Q4 RRW";
         H10 = "Annual RR"; H11 = "Annual RRW";
         PUT H1  : $CHAR50.
             H2  : $CHAR50.
             H3  : $CHAR50.
             H4  : $CHAR50.
             H5  : $CHAR50.
             H6  : $CHAR50.
             H7  : $CHAR50.
             H8  : $CHAR50.
             H9  : $CHAR50.
             H10 : $CHAR50.
             H11 : $CHAR50.
             ;
      END;
      PUT DOMAIN1: $CHAR40.
          RR1    : 4.1
          RRW1   : 4.1
          RR2    : 4.1
          RRW2   : 4.1
          RR3    : 4.1
          RRW3   : 4.1
          RR4    : 4.1
          RRW4   : 4.1
          RR5    : 4.1
          RRW5   : 4.1
          ;
   %END;
   %ELSE %IF &NUMDOM = 2 %THEN %DO;
      FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c12";
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &YEAR";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN1";    H2 = "DOMAIN2";
         H3 = "Q1 RR";      H4 = "Q1 RRW";
         H5 = "Q2 RR";      H6 = "Q2 RRW";
         H7 = "Q3 RR";      H8 = "Q3 RRW";
         H9 = "Q4 RR";      H10 = "Q4 RRW";
         H11 = "Annual RR"; H12 = "Annual RRW";
         PUT H1  : $CHAR50.
             H2  : $CHAR50.
             H3  : $CHAR50.
             H4  : $CHAR50.
             H5  : $CHAR50.
             H6  : $CHAR50.
             H7  : $CHAR50.
             H8  : $CHAR50.
             H9  : $CHAR50.
             H10 : $CHAR50.
             H11 : $CHAR50.
             H12 : $CHAR50.
             ;
      END;
```

```
          PUT DOMAIN1: $CHAR40.
              DOMAIN2: $CHAR40.
              RR1    : 4.1
              RRW1   : 4.1
              RR2    : 4.1
              RRW2   : 4.1
              RR3    : 4.1
              RRW3   : 4.1
              RR4    : 4.1
              RRW4   : 4.1
              RR5    : 4.1
              RRW5   : 4.1
              ;
       %END;
       %ELSE %IF &NUMDOM = 3 %THEN %DO;
          FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c13";
          FILE OUTDATA DLM='09'X NOTAB LRECL=500;
          LENGTH OLINE $50;
          IF _N_ = 1 THEN DO;
              OLINE = "RESPONSE RATES FOR &YEAR";
              PUT OLINE;
              OLINE = "FOR DOMAIN = &DSN";
              PUT OLINE /;
              H1  = "DOMAIN1";   H2  = "DOMAIN2"; H3 = "DOMAIN3";
              H4  = "Q1 RR";     H5  = "Q1 RRW";
              H6  = "Q2 RR";     H7  = "Q2 RRW";
              H8  = "Q3 RR";     H9  = "Q3 RRW";
              H10 = "Q4 RR";     H11 = "Q4 RRW";
              H12 = "Annual RR"; H13 = "Annual RRW";
              PUT H1  : $CHAR50.
                  H2  : $CHAR50.
                  H3  : $CHAR50.
                  H4  : $CHAR50.
                  H5  : $CHAR50.
                  H6  : $CHAR50.
                  H7  : $CHAR50.
                  H8  : $CHAR50.
                  H9  : $CHAR50.
                  H10 : $CHAR50.
                  H11 : $CHAR50.
                  H12 : $CHAR50.
                  H13 : $CHAR50.
                 ;
          END;
          PUT DOMAIN1: $CHAR40.
              DOMAIN2: $CHAR40.
              DOMAIN3: $CHAR40.
              RR1    : 4.1
              RRW1   : 4.1
              RR2    : 4.1
              RRW2   : 4.1
              RR3    : 4.1
              RRW3   : 4.1
              RR4    : 4.1
              RRW4   : 4.1
              RR5    : 4.1
              RRW5   : 4.1
              ;
       %END;
   RUN;
%MEND;

*****************************************************************************
* Copy empty template file to the combined annual response rate spreadsheet
* and start the XLS file.
*****************************************************************************;
X "COPY EMPTY_ANNUAL.XLS RESPONSE_RATES_ANNUAL.XLS";
X "START RESPONSE_RATES_ANNUAL.XLS";

*****************************************************************************
* Write the combined annual spreadsheet file for each DOMAIN/DSN.
*****************************************************************************;
%WRITEXLS(DSN=&DSN1,  NUMDOM=0);
%WRITEXLS(DSN=&DSN2,  NUMDOM=1);
```

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```
%WRITEXLS(DSN=&DSN3,  NUMDOM=1);
%WRITEXLS(DSN=&DSN4,  NUMDOM=1);
%WRITEXLS(DSN=&DSN5,  NUMDOM=1);
%WRITEXLS(DSN=&DSN6,  NUMDOM=1);
%WRITEXLS(DSN=&DSN7,  NUMDOM=1);
%WRITEXLS(DSN=&DSN8,  NUMDOM=1);
%WRITEXLS(DSN=&DSN9,  NUMDOM=1);
%WRITEXLS(DSN=&DSN10, NUMDOM=1);
%WRITEXLS(DSN=&DSN11, NUMDOM=1);
%WRITEXLS(DSN=&DSN12, NUMDOM=2);
%WRITEXLS(DSN=&DSN13, NUMDOM=2);
%WRITEXLS(DSN=&DSN14, NUMDOM=2);
%WRITEXLS(DSN=&DSN15, NUMDOM=2);
%WRITEXLS(DSN=&DSN16, NUMDOM=3);


***************************************************************************
* Quit spreadsheet application.
**************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN;
```

F.21.B   RESPONSE_RATE\TABLE02.SAS - CALCULATE THE ANNUAL RESPONSE RATES.

```
*****************************************************************************
*
* PROGRAM: TABLE02.SAS
* TASK:    2006 DOD HEALTH CARE SURVEY ANALYSIS (6077-300)
* PURPOSE: BUILD TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          Quarterly DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 11/09/1999 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 12/14/2000, Keith Rathbun - Added printing of weighted (WN) and
*    unweighted (SN) population sizes.  Also, Update for quarterly survey
*    to use BWT instead of BWT99 (generalized variable name for ease of
*    maintenance).
* 2) 02/01/2001, Keith Rathbun - Added the PERIOD parameter.
* 3) 01/30/2002, Esther Friedman - added nested macro so it would run
*    for all 4 quarters trickle files.
* 4) 11/16/2004, Haixia Xu for Q3, 2004 RR
*              - Changed FNSTATUS from 30 to 31, SN3->SN31, WN3->WN31
*              - Use MERGEQ.SD2 as the input data
*              - Produce the RR for servaff and xtnexreg
* 5) 01/18/2005, Keith Rathbun - Added CREATXLS macro.
* 6) 03/15/2005, Keith Rathbun - Updated for 2004 annual.
* 7) 02/20/2006, Haixia Xu - Updated for 2005 annual
* 7) 11/02/2006, Haixia Xu - Updated for 2006 annual
* 7) 11/13/2007, Haixia Xu - Updated for 2007 annual
*
* INPUT:   1) MERGEQ.SD2 (All quarters)
*
* INCLUDES: 1) TABLE02.IN1
*           2) TABLE02.IN2
*
* NOTES:
*
* 1) This program must be run in BATCH mode.  DO NOT modify the directory
*    references to be hard-wired to support interactive use.
* 2) If you add a new domain combination, you will need to update the
*    EMPTY.XLS file to have a new sheet with the same name as the domain
*    variable(s) combination.
*
*****************************************************************************;
OPTIONS PS=79 LS=132 COMPRESS=YES ERRORS=1 NOXWAIT NOCENTER NOFMTERR;* mprint mlogic symbolgen;

%let year=2009;

LIBNAME in1t     "..\..\..\Q1FY&year.t\DATA\AFINAL"; * Q1 mergeq with late response;
LIBNAME in2t     "..\..\..\Q2FY&year.t\DATA\AFINAL"; * Q2 mergeq with late response;
LIBNAME in3t     "..\..\..\Q3FY&year.t\DATA\AFINAL"; * Q3 mergeq with late response;
LIBNAME in4      "..\..\..\Q4FY&year.\DATA\AFINAL";  * Q4 mergeq;
LIBNAME inr1     "K:\Q1FY&year."; * Q1 sample;
LIBNAME inr2     "K:\Q2FY&year."; * Q2 sample;
LIBNAME inr3     "K:\Q3FY&year."; * Q3 sample;
LIBNAME inr4     "K:\Q4FY&year."; * Q4 sample;

LIBNAME LIBRARY V612 "..\..\DATA\FMTLIB";

TITLE1 "Program: TABLE02.SAS";
TITLE2 "Purpose: Compute response rates by DOMAIN";

%LET OFILES = ..\..\DATA\Response_Rate\;
%LET QUARTER = 2009 Combined Annual;
%LET DATE= 11-3-2009;
%LET TASKNUM = 6663-300;

proc format;
  VALUE $ENBGSm
          '01' = "Active duty"
          '02' = "Active duty fam,Prime,civ PCM"
          '03' = "Active duty fam,Prime,mil PCM"
          '04' = "Active duty fam,non-enrollee"
          '05' = "Retired,<65,civ PCM"
          '06' = "Retired,<65,mil PCM"
```

```
                    '07' = "Retired,<65,non-enrollee"
                    '08' = "Retired,65+,enrolled"
                    '10' = "Retired,65+,non-enrollee"
                    '11' = "TRICARE Reserve Select";
          VALUE TNEX
          . = "Missing Data"
          1 = "North"
          2 = "South"
          3 = "West"
          4 = "Overseas" ;
       RUN;

       ********************************************************************
       * Create ebg_com
       ********************************************************************;

       %macro create_ebg(qrt=, q=);
       DATA MERGEQ&qrt.;
       SET in&qrt..MERGEQ;
       /*01/31/2007 by H.Xu.
       As per Nancy's suggestion, collapse 09 with 08, since 09 has two few beneficiaries*/
       if enbgsmpl = '09' then enbgsmpl='08';
       format enbgsmpl $enbgsm.;
       RUN;

       proc sort data=mergeq&QRt; by mprid;run;
       proc sort data=%IF &QRt.=1t %THEN %DO; inr&q..sampla07_2 %END;
                      %ELSE %IF &Qrt.=2t %THEN %DO; inr&q..sampla04_2 %END;
                      %ELSE %IF &Qrt.=3t OR &Qrt.=4 %THEN %DO; inr&q..sampla03_2 %END;
          (keep=mprid has_email)
           out=sampla07_2;
           by mprid;
       run;

       data mergeq&qrt.;
       merge mergeq&qrt.(in=A) sampla07_2(in=B);
       by mprid;
       IF A AND B;
       run;

       %mend;

       %create_ebg(qrt=1t,q=1);
       %create_ebg(qrt=2t,q=2);
       %create_ebg(qrt=3t,q=3);
       %create_ebg(qrt=4,q=4);


       /*Combine 4 quarters*/
       DATA MERGERR;
          SET MERGEQ1t MERGEQ2t MERGEQ3t MERGEQ4 ;
       RUN;

       PROC FREQ DATA=MERGERR;
          TABLES  PATCAT*FNSTATUS
                  PATCAT RACEETHN PATCAT*RACEETHN PATCAT*SVCSMPL
          /MISSING LIST;
       RUN;

       %MACRO PROCESS(INPT=, FORM=);
          ************************************************************
          * Process OVERALL Summary of response rates
          ************************************************************;
          DATA _NULL_;
             SET &INPT END=FINISHED;
             IF _N_ = 1 THEN DO;
                 SN    = 0;
                 SN1   = 0;
                 SN11  = 0;
                 SN12  = 0;
                 SN2   = 0;
                 SN31   = 0;
                 SN4   = 0;
                 SN41  = 0;
```

```
   SN42  = 0;
   WN   = 0;
   WN1  = 0;
   WN11 = 0;
   WN12 = 0;
   WN2  = 0;
   WN31  = 0;
   WN4  = 0;
   WN41 = 0;
   WN42 = 0;
END;
*************************************************************
* Accumulate group 1 weighted and unweighted counts.
*************************************************************;
SN + 1;
WN + BWT;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
   WN1 + BWT;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT;
   END;
END;
****************************************************
* Accumulate group 2 weighted and unweighted counts.
****************************************************;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT;
END;
****************************************************
* Accumulate group 3 weighted and unweighted counts.
****************************************************;
ELSE IF FNSTATUS = 31 THEN DO;
   SN31 + 1;
   WN31 + BWT;
END;
****************************************************
* Accumulate group 4 weighted and unweighted counts.
****************************************************;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT;
   END;
END;

DROP I;
RETAIN
   SN
   SN1
   SN11
   SN12
   SN2
   SN31
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
```

```
                WN31
                WN4
                WN41
                WN42
              ;

          IF FINISHED THEN GO TO FINISHED;
          RETURN;

     FINISHED:
        FILE "&OFILES.TABLE02&FORM..OUT" RECFM=V LRECL=9999;
        PUT; PUT; PUT;
        PUT @001 "TABLE 2: OVERALL RESPONSE RATES SUMMARY";
        PUT @001 "&DATE., TASK: &TASKNUM.";
        PUT;
        PUT "SUMMARY OF GROUP COUNTS: FORM &FORM";
        PUT;
        PUT @131 "UNWEIGHTED COUNT"
            @181 "WEIGHTED COUNT"
            ;
        PUT @121 'FLR'
            @131 'FCR'
            @141 'FRR'
            @151 'POP'
            @171 'FLR'
            @181 'FCR'
            @191 'FRR'
            @201 'POP'
            ;
        %INCLUDE "TABLE02.IN2";
     RUN;
%MEND PROCESS;

**********************************************************************
* Process Single Domain where domain1 is the variable of interest.
*********************************************************************;
%MACRO PROCESS1(DOMAIN1=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1;
      FILE "&OFILES.&DOMAIN1..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
      VARIABLE = VARNAME1;
      %INCLUDE "TABLE02.IN1";
      IF LAST.&DOMAIN1 THEN DO;
         PUT @001 &DOMAIN1 @;
         %INCLUDE "TABLE02.IN2";
      END; * DOMAIN;
   RUN;
%MEND PROCESS1;

**********************************************************************
* Process Double Domain where domain1/domain2 are the
* variables of interest.
*********************************************************************;
%MACRO PROCESS2(DOMAIN1=, DOMAIN2=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1 &DOMAIN2; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1 &DOMAIN2;
      FILE "&OFILES.&DOMAIN1&DOMAIN2..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARNAME2 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
      CALL VNAME(&DOMAIN2,VARNAME2);
      VARIABLE = VARNAME1 || " " || VARNAME2;
```

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```
        %INCLUDE "TABLE02.IN1";
        IF LAST.&DOMAIN2 THEN DO;
           PUT @001 &DOMAIN1 @;
           PUT @041 &DOMAIN2 @;
           %INCLUDE "TABLE02.IN2";
           SN    = 0;
           SN1   = 0;
           SN11  = 0;
           SN12  = 0;
           SN2   = 0;
           SN31  = 0;
           SN4   = 0;
           SN41  = 0;
           SN42  = 0;
           WN    = 0;
           WN1   = 0;
           WN11  = 0;
           WN12  = 0;
           WN2   = 0;
           WN31  = 0;
           WN4   = 0;
           WN41  = 0;
           WN42  = 0;
        END; * DOMAIN;
     RUN;
%MEND PROCESS2;


*************************************************************************
* Process Triple Domain where domain1-3 are the variables of interest.
************************************************************************;
%MACRO PROCESS3(DOMAIN1=, DOMAIN2=, DOMAIN3=, INPT=, FORM=);

   PROC SORT DATA=&INPT; BY &DOMAIN1 &DOMAIN2 &DOMAIN3; RUN;

   DATA _NULL_;
      SET &INPT;
      BY &DOMAIN1 &DOMAIN2 &DOMAIN3;
      FILE "&OFILES.&DOMAIN1&DOMAIN2&DOMAIN3..OUT" RECFM=V LRECL=9999;
      LENGTH VARNAME1 $8;
      LENGTH VARNAME2 $8;
      LENGTH VARNAME3 $8;
      LENGTH VARIABLE $30;
      CALL VNAME(&DOMAIN1,VARNAME1);
      CALL VNAME(&DOMAIN2,VARNAME2);
      CALL VNAME(&DOMAIN3,VARNAME3);
      VARIABLE = VARNAME1 || " " || VARNAME2 || " " || VARNAME3;
      %INCLUDE "TABLE02.IN1";
      IF LAST.&DOMAIN3 THEN DO;
         PUT @001 &DOMAIN1 @;
         PUT @041 &DOMAIN2 @;
         PUT @081 &DOMAIN3 @;
         %INCLUDE "TABLE02.IN2";
         SN    = 0;
         SN1   = 0;
         SN11  = 0;
         SN12  = 0;
         SN2   = 0;
         SN31  = 0;
         SN4   = 0;
         SN41  = 0;
         SN42  = 0;
         WN    = 0;
         WN1   = 0;
         WN11  = 0;
         WN12  = 0;
         WN2   = 0;
         WN31  = 0;
         WN4   = 0;
         WN41  = 0;
         WN42  = 0;
      END; * DOMAIN;
   RUN;
%MEND PROCESS3;
```

```
***Note that the ERROR message of division by zero may be printed out
in the log file due to no complete in some domains***;

*************************************************************
* PROCESS OVERALL RESPONSE RATE TABULATION - FORM A
*************************************************************;
%PROCESS(INPT=MERGERR, FORM=A);


*************************************************************
* PROCESS SINGLE DOMAIN RESPONSE RATE TABULATION - FORM A
*************************************************************;
*%PROCESS1(DOMAIN1=xregion,  INPT=MERGERR, FORM="FORM A");
*%PROCESS1(DOMAIN1=QFLAG, INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=has_email, INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=xoconus,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=USA,     INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=sexsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=enbgsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=cacsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=patcat,   INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=servaff,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=svcsmpl,  INPT=MERGERR, FORM="FORM A");
%PROCESS1(DOMAIN1=xtnexreg, INPT=MERGERR, FORM="FORM A");


*************************************************************
* PROCESS DOUBLE DOMAIN RESPONSE RATE TABULATION - FORM A
*************************************************************;

%PROCESS2(DOMAIN1=patcat,   DOMAIN2=svcsmpl, INPT=MERGERR, FORM="FORM A");
%PROCESS2(DOMAIN1=patcat,   DOMAIN2=sexsmpl, INPT=MERGERR, FORM="FORM A");
%PROCESS2(DOMAIN1=xtnexreg, DOMAIN2=cacsmpl, INPT=MERGERR, FORM="FORM A");
%PROCESS2(DOMAIN1=PATCAT, DOMAIN2=HAS_EMAIL, INPT=MERGERR, FORM="FORM A");


*************************************************************
* PROCESS TRIPLE DOMAIN RESPONSE RATE TABULATION - FORM A
*************************************************************;
%PROCESS3(DOMAIN1=USA, DOMAIN2=patcat, DOMAIN3=has_email, INPT=MERGERR, FORM="FORM A");

*****************************************************************************
* Copy empty template file to constructed variables spreadsheet and
* start the XLS file.
*****************************************************************************;
X "COPY EMPTY.XLS RESPONSE_RATES.XLS";
X "START RESPONSE_RATES.XLS";

%MACRO CREATXLS(DSN=, NUMDOM=);
    *****************************************************************************
    * Read text files with response rates for each DOMAIN .
    *****************************************************************************;
    DATA &DSN(KEEP=DOMAIN1 DOMAIN2 DOMAIN3 RR RRW);
        INFILE "&OFILES.&DSN..OUT" LRECL=9999 RECFM=V;
        INPUT LINEIN $100 @; DROP LINEIN; *Skip over header records;
        LENGTH DOMAIN1-DOMAIN3 $40;
        IF _N_ GE 7 THEN DO;
            INPUT
                @001 DOMAIN1 $CHAR40.
                @041 DOMAIN2 $CHAR40.
                @081 DOMAIN3 $CHAR40.
                @121 FLR1   4.3
                @131 FCR1   4.3
                @141 FRR1   4.3
                @147 SN     7.0
                @171 FLR2   4.3
                @181 FCR2   4.3
                @191 FRR2   4.3
                @197 WN     7.0
              ;
            RR  = FRR1*100;
            RRW = FRR2*100;
            OUTPUT;
        END;
    RUN;
    *********************************************************************
```

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```
* Add values for each DOMAIN to each sheet.
***************************************************************************;
%IF &NUMDOM LE 1 %THEN %DO;
   FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c3";
   DATA _NULL_;
      SET &DSN;
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &QUARTER";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN"; H2 = "RR"; H3 = "RRW";
         PUT H1 : $CHAR50.
             H2 : $CHAR50.
             H3 : $CHAR50.
           ;
      END;
      PUT DOMAIN1: $CHAR40.
         RR     : 4.1
         RRW    : 4.1
         ;
   RUN;
%END;
%ELSE %IF &NUMDOM = 2 %THEN %DO;
   FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c4";
   DATA _NULL_;
      SET &DSN;
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &QUARTER";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN1"; H2 = "DOMAIN2"; H3 = "RR"; H4 = "RRW";
         PUT H1 : $CHAR50.
             H2 : $CHAR50.
             H3 : $CHAR50.
             H4 : $CHAR50.
           ;
      END;
      PUT DOMAIN1: $CHAR40.
         DOMAIN2: $CHAR40.
         RR     : 4.1
         RRW    : 4.1
         ;
   RUN;
%END;
%ELSE %IF &NUMDOM = 3 %THEN %DO;
   FILENAME OUTDATA DDE "excel|&DSN!r1c1:r9999c5";
   DATA _NULL_;
      SET &DSN;
      FILE OUTDATA DLM='09'X NOTAB LRECL=500;
      LENGTH OLINE $50;
      IF _N_ = 1 THEN DO;
         OLINE = "RESPONSE RATES FOR &QUARTER";
         PUT OLINE;
         OLINE = "FOR DOMAIN = &DSN";
         PUT OLINE /;
         H1 = "DOMAIN1"; H2 = "DOMAIN2"; H3 = "DOMAIN3"; H4 = "RR"; H5 = "RRW";
         PUT H1 : $CHAR50.
             H2 : $CHAR50.
             H3 : $CHAR50.
             H4 : $CHAR50.
             H5 : $CHAR50.
           ;
      END;
      PUT DOMAIN1 : $CHAR40.
         DOMAIN2 : $CHAR40.
         DOMAIN3 : $CHAR40.
         RR      : 4.1
         RRW     : 4.1
```

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```
                 ;
        RUN;
     %END;
%MEND CREATXLS;


%CREATXLS(DSN=TABLE02A, NUMDOM=0);
*CREATXLS(DSN=QFLAG, NUMDOM=1);
%CREATXLS(DSN=HAS_EMAIL, NUMDOM=1);
%CREATXLS(DSN=XOCONUS, NUMDOM=1);
%CREATXLS(DSN=USA, NUMDOM=1);
%CREATXLS(DSN=SEXSMPL, NUMDOM=1);
%CREATXLS(DSN=enbgsmpl, NUMDOM=1);
%CREATXLS(DSN=cacsmpl, NUMDOM=1);
%CREATXLS(DSN=PATCAT, NUMDOM=1);
%CREATXLS(DSN=SERVAFF, NUMDOM=1);
%CREATXLS(DSN=SVCSMPL, NUMDOM=1);
%CREATXLS(DSN=XTNEXREG, NUMDOM=1);
%CREATXLS(DSN=PATCATSVCSMPL, NUMDOM=2);
%CREATXLS(DSN=PATCATSEXSMPL, NUMDOM=2);
%CREATXLS(DSN=XTNEXREGcacsmpl, NUMDOM=2);
%CREATXLS(DSN=PATCATHAS_EMAIL, NUMDOM=2);
%CREATXLS(DSN=USAPATCATHAS_EMAIL, NUMDOM=3);
*************************************************************************
* Quit spreadsheet application.
************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[SAVE]';
   PUT '[QUIT]';
RUN;
```

F.21.C   RESPONSE_RATE\TABLE02.IN1 - INCLUDE FILE1 USED TO CALCULATE ANNUAL RESPONSE RATES.

```
****************************************************************************
*
* PROGRAM: TABLE02.IN1
* TASK:    2002 DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          2002 DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/1999, Keith Rathbun - Added back printing of FLR
* 3) 12/14/2000, Keith Rathbun - Update for quarterly survey to use BWT
*    instead of BWT99 (generalized variable name for ease of maintenance).
* 4) 11/16/2004 by Haixia Xu - Update the coding of FNSTATUS from 30 to 31.
*                             SN3->SN31, WN3->WN31
* 5) 01/24/2005 by Keith Rathbun - Update PUT statements to accomodate up
*    to 3 CHAR*40 domains.
*
****************************************************************************
*;
IF _N_ = 1 THEN DO;
   PUT; PUT;
   PUT @001 "TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY";
   PUT @001 "&DATE., TASK: &TASKNUM.";
   PUT;
   PUT "SUMMARY OF GROUP COUNTS: " &FORM;
   PUT "VARIABLE = " VARIABLE;
   PUT;
   PUT @131 "UNWEIGHTED COUNT"
       @181 "WEIGHTED COUNT"
      ;
   PUT @121 'FLR'
       @131 'FCR'
       @141 'FRR'
       @151 'POP'
       @171 'FLR'
       @181 'FCR'
       @191 'FRR'
       @201 'POP'
      ;
END;
IF FIRST.&DOMAIN1 THEN DO;
   SN    = 0;
   SN1   = 0;
   SN11  = 0;
   SN12  = 0;
   SN2   = 0;
   SN31  = 0;
   SN4   = 0;
   SN41  = 0;
   SN42  = 0;
   WN    = 0;
   WN1   = 0;
   WN11  = 0;
   WN12  = 0;
   WN2   = 0;
   WN31  = 0;
   WN4   = 0;
   WN41  = 0;
   WN42  = 0;
END;
****************************************************
* Accumulate group 1 weighted and unweighted counts
****************************************************
;
SN + 1;
WN + BWT;
IF FNSTATUS IN(11,12) THEN DO;
   SN1 + 1;
```

```
   WN1 + BWT;
   IF FNSTATUS = 11 THEN DO;
      SN11 + 1;
      WN11 + BWT;
   END;
   ELSE DO;
      SN12 + 1;
      WN12 + BWT;
   END;
END;
*****************************************************
* Accumulate group 2 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 20 THEN DO;
   SN2 + 1;
   WN2 + BWT;
END;
*****************************************************
* Accumulate group 3 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS = 31 THEN DO;
   SN31 + 1;
   WN31 + BWT;
END;
*****************************************************
* Accumulate group 4 weighted and unweighted counts
*****************************************************
;
ELSE IF FNSTATUS IN(41,42) THEN DO;
   SN4 + 1;
   WN4 + BWT;
   IF FNSTATUS = 42 THEN DO;
      SN42 + 1;
      WN42 + BWT;
   END;
   ELSE DO;
      SN41 + 1;
      WN41 + BWT;
   END;
END;

DROP I;
RETAIN
   SN
   SN1
   SN11
   SN12
   SN2
   SN31
   SN4
   SN41
   SN42
   WN
   WN1
   WN11
   WN12
   WN2
   WN31
   WN4
   WN41
   WN42
   ;
```

F.21.D   RESPONSE_RATE\TABLE02.IN2 - INCLUDE FILE2 USED TO CALCULATE ANNUAL RESPONSE RATES.

```
*****************************************************************************
*
* PROGRAM: TABLE02.IN2
* TASK:    QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS
* PURPOSE: COMMON CODE INCLUDE FILE USED TO BUILD
*          TABLE 2: RESPONSE RATES BY DOMAIN SUMMARY
*          QUARTERLY DOD HEALTH CARE SURVEY FILE.
* WRITTEN: 01/08/99 BY KEITH RATHBUN
*
* MODIFIED:
* 1) 5/17/1999, Keith Rathbun - Removed printing of the final location rate
*    (FLR) and final completion rate (FCR).
* 2) 7/07/1999, Keith Rathbun - Added back printing of FLR
* 3) 12/14/2000, Keith Rathbun - Added printing of weighted (WN) and
*    unweighted (SN) population sizes.
* 4) 11/17/2004 BY Haixia Xu - Made changes due to the different coding of FNSTATUS:
*                          -Rewrite the formula used to calculating FRR1, FRR2
*                          -SN3->SN31, WN3->WN31
* 5) 01/24/2005 by Keith Rathbun - Update PUT statements to accomodate up
*    to 3 CHAR*40 domains.
*
*****************************************************************************
*;

   *Final Response Rate;
   FRR1 = SN11/(SN1 + SN2 + SN4*((SN1 + SN2)/(SN1 + SN2 + SN31)) );
   FRR2 = WN11/(WN1 + WN2 + WN4*((WN1 + WN2)/(WN1 + WN2 + WN31)) );

   *Final Location Rate;
   L = ((SN1 + SN2)/(SN1 + SN2 + SN31))*SN41;
   WL = ((WN1 + WN2)/(WN1 + WN2 + WN31))*WN41;
   FLR1 = (SN1 + SN2 + L)/(SN1 + SN2 + SN4*((SN1 + SN2)/(SN1 + SN2 + SN31)));
   FLR2 = (WN1 + WN2 + WL)/(WN1 + WN2 + WN4*((WN1 + WN2)/(WN1 + WN2 + WN31)));

   *Final Completion Rate;
   FCR1 = SN11/(SN1 + SN2 + L);
   FCR2 = WN11/(WN1 + WN2 + WL);
   PUT @121 FLR1  4.3
       @131 FCR1  4.3
       @141 FRR1  4.3
       @147 SN    7.0
       @171 FLR2  4.3
       @181 FCR2  4.3
       @191 FRR2  4.3
       @197 WN    7.0
     ;
```

APPENDIX G

SAS CODE FOR STATISTICAL AND WEB SPECIFICATIONS FOR THE 2008 TRICARE BENEFICIARY REPORTS – QUARTERS I-IV

```
        *****************************************************************************
        *
        *  PROJECT:  DoD - Quarterly Adult Report Cards
        *  PROGRAM:  STEP1Q.SAS
        *  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
        *                    Create a Female dummy variable
        *                    Create an Education dummy variable
        *                    Create 15 region dummies combining regions.
        *                            7 & 8 into region 8. That is, there
        *                            isn't a region 7 dummy.
        *                    Create 7 age dummy variables.
        *
        *            We require the most desired code to be the highest value.
        *            Recode the dependent variables into:
        *                    1 - the least desirable value
        *                    2 - the 2nd least desirable value
        *                    3 - the most desirable value
        *                    . - missing
        *
        *            Create 7 variables GROUP1 - GROUP7
        *                    IF (XINS_COV IN (1,2,6) AND H09004>=2) THEN GROUP1 = 1
        *                    IF (XENR_PCM IN (1,2,6) AND H09004>=2) THEN GROUP2 = 1
        *                    IF (XENR_PCM = 3,7     AND H09004>=2) THEN GROUP3 = 1
        *                    IF XINS_COV IN (3)                    THEN GROUP4 = 1
        *                        /*JSO 08/24/2006, Deleted 4,5*/
        *                    IF XBNFGRP = 1                        THEN GROUP5 = 1
        *                    IF XBNFGRP = 2                        THEN GROUP6 = 1
        *                    IF XBNFGRP IN (3,4)                   THEN GROUP7 = 1
        *                    GROUP8 is output for all beneficiaries
        *
        *  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
        *               adult report cards.  Removed permanent dataset ENTIRE.SD2.
        *            2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
        *               for 3rd quarter adult report cards.
        *            3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
        *               stratification done in Q3, changed all references of the
        *               POSTSTR variable to ADJ_CELL
        *            4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
        *               XENR_PCM
        *            5) April 2002 By Mike Scott, Updated variable names for 2002
        *               survey.
        *            6) July 2002 By Mike Scott: See Note #2.  Replaced variable
        *               S02S01 with H04075 (new health status variable), deleted
        *               code to recode S02S01 to H00077, and changed H00077/R00077
        *               rename/recode to H04075/R04075 rename/recode.  The Hispanic/
        *               Latino variable is not present.
        *            7) January 2003 By Mike Scott, Changed ADJ_CELL to COM_SAMP.
        *            8) March 2003 By Mike Scott, Updated variable names for 2003
        *               survey.
        *            9) June 2003 By Mike Scott, Updated for Q2 2003.
        *            10) July 2003 By Mike Scott, Changed COM_SAMP to ADJ_CELL.
        *            11) October 2003 By Mike Scott, Updated for Q3 2003.
        *            12) January 2004 By Mike Scott, Updated for Q4 2003, and changed
        *               DAGEQY to FIELDAGE.
        *            13) March 2004 By Mike Scott, Updated for Q1 2004.
        *            14) April 2004 By Keith Rathbun, Removed reverse coding for
        *               H04031.  2004 survey question wording is 'Within 15 minutes'
        *               instead of "More than 15 Minutes".  Added service affiliation
        *               variables so only one version of this program is needed to
        *               handle the consumer watch processing.
        *            15) June 2004 by Regina Gramss, Updated for Q2 2004.
        *            16) Sept 2004 by Regina Gramss, changed XRegion to xtenxreg, updated for Q3
2004.
        *            17) Jan 2005 by Regina Gramss, changed XTENXREG to XSERVREG to include
        *               service affiliation.  Regions have been changed from 4 categories to 16.
        *            18) Apr 2005 by Regina Gramss, updated field names for 2005 data.
        *            19) Jul 2005 by Regina Gramss, updated for Q2 2005
        *            20) Oct 2005 by Regina Gramss, updated for Q3 2005
        *            21) Dec 2005 by Regina Gramss, updated for Q4 2005
        *            22) March 21, 2006 by Keith Rathbun, updated variable names
```

```
*                 for Q2 FY 2006.  Changed references to ADJ_CELL to be STRATUM.
*           23) July 12, 2006 by Justin Oh, updated for Q3 FY 2006
*           24) Aug 22, 2006 by Justin Oh, changed overseas to 3 regions.
*                 Regions have been changed from 16 categories to 24.
*                 Added XOCONUS to the Keep statement for Overseas classifications.
*                 Changed XSERVREG for Overseas (Europe,Pacific,Latin America).
*                 Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
*                         IF XINS_COV IN (3)     THEN GROUP4 = 1
*                 Since only XINS_COV IN (1,2,3,6) is kept, (4,5) not needed.
*           25) Oct 03, 2006 by Justin Oh, changed input data HCS063_1 to HCS064_1
*                 for Q4FY2006 reports.
*           26) Apr 05, 2007 by Justin Oh, Added %LET BCHTYPE to select BCH types
*                 Benchmark OR PurchasedBenchmark.
*           27) Apr 05, 2007 by Justin Oh, Added changes to select RC types
*                 ReportCards OR PurchasedReportCards.
*           28) Apr 26, 2007 by Justin Oh, Added codes, variables for new
*                 reservists logic.
*           29) May 15, 2007 by Justin Oh, Changed XINS_COV to NXNS_COV to assign
*                 Groups 1,3, and 4 for new reservists logic.
*           30) Jul 30, 2007 by Justin Oh, Added added DBENCAT conditions to assign
*                 Groups All, 4, 5, and 6.
*           31) Oct 02, 2007 by Justin Oh, changed input data HCS073_1 to HCS074_1
*                 for Q4FY2007 reports.
*           32) January 10, 2008 by Keith Rathbun, updated variable names
*                 for Q1 FY 2008.
*           33) Apr 11, 2008 by Justin Oh, changed input data HCS081_1 to HCS082_1
*                 for Q2FY2008 reports.
*           34) June 13, 2008 by Keith Rathbun, changed input data HCS082_1 to HCS083_1
*                 for Q3FY2008 reports.
*           35) Jan 16, 2009 by Mike Rudacille, changed CONUS variable to USA
*           36) Jan 21, 2009 by Mike Rudacille, changed 2009 questionnaire variables
*                 applicable to both V3 and V4 from V3 names to V4 names
*           37) March 11, 2009 by Keith Rathbun, changed input data HCS091_1 to HCS092_1
*                 for Q2FY2009 reports.
*           38) April 6, 2009 by Mike Rudacille, changed variable names to reflect
*                 modifications to beneficiary reports necessary for V4
*           39) June 22, 2009 By Keith Rathbun, Change weight variable from
*                 FWRWT_V4 back to FWRWT.  Changed input data HCS092_1 to HCS093_1
*                 for Q3FY2009 reports.
*           40) Sept 30, 2009 By Mike Rudacille, Changed input data HCS093_1 to HCS094_1
*                 for Q4FY2009 reports.
*
*   INPUTS:   1) HCSyyq_1 - DoD Quarterly HCS Database
*
*   OUTPUTS:  1) GROUP1-8.sas7bdat - DoD Quarterly GROUP files as defined above
*
*   INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                          values for consistency w/ TOPS
*
*   NOTES:    1) Groups 1-3 modified 10/09/2000
*
*             2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*                status variable for 2000).  H02077 was the Hispanic/Latino
*                variable.  In Q2_2002, H02077 is health status, and H02079
*                is the Hispanic/Latino variable.  To make the Quarter 2 data
*                file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*                the health status variable which was H02077 is now H04075,
*                and the Hispanic/Latino variable which was H02079 is now
*                H02077.
*
****************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards              ***/
%LET RCTYPE = ReportCards;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT       "DATA";
LIBNAME IN1       "..\..\..\..\Data\AFinal";
LIBNAME LIBRARY  "..\..\..\..\Data\Afinal\fmtlib";

TITLE1    'Program Saved as: STEP1Q.SAS';

%LET WGT = FWRWT;
```

```
      proc format;
          value servreg 1 = 'North Army'
                         2 = 'North Air Force'
                         3 = 'North Navy'
                         4 = 'North Other'
                         5 = 'South Army'
                         6 = 'South Air Force'
                         7 = 'South Navy'
                         8 = 'South Other'
                         9 = 'West Army'
                        10 = 'West Air Force'
                        11 = 'West Navy'
                        12 = 'West Other'
                        13 = 'Europe Army'
                        14 = 'Europe Air Force'
                        15 = 'Europe Navy'
                        16 = 'Europe Other'
                        17 = 'Pacific Army'
                        18 = 'Pacific Air Force'
                        19 = 'Pacific Navy'
                        20 = 'Pacific Other'
                        21 = 'Latin America Army'
                        22 = 'Latin America Air Force'
                        23 = 'Latin America Navy'
                        24 = 'Latin America Other';


      DATA ENTIRE;
         SET IN1.HCS094_1(KEEP=
                      MPRID
                      FIELDAGE   /*MJS 01/26/04*/
                      XTNEXREG
                      SERVAFF    /*KRR 04/09/04*/
                      DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                      USA
                      ENBGSMPL
                      SREDA
                      XSEXA
                      XBNFGRP
                      STRATUM    /*KRR 04/03/2006, changed from ADJ_CELL*/
                      XINS_COV
                      XENR_PCM
                      XOCONUS    /*JSO 08/24/2006, Overseas Region Indicator*/
                      &WGT.
                      /* Getting Needed Care */
                      H09033
                      H09029
                      /* Getting Care Quickly */
                      H09007
                      H09010
                      /* How Well Doctors Communicate */
                      H09021
                      H09022
                      H09023
                      H09024
                      /* Customer Service */
                      H09040
                      H09041
                      /* Claims Processing */
                      H09045
                      H09046  /****************************/
                      H09063  /* Health Status            */
                      H09018  /* Health Care Rating       */
                      H09047  /* Health Plan Rating       */
                      H09027  /* Personal Doctor Rating   */
                      H09031  /* Specialist Rating        */
                      H09003   /* Health Plan Used            *//*JSO 04/26/2007, added for
reservists logic*/
                      H09004  /* How Long in Health Plan  */
                            /****************************/
                  );
          FORMAT _ALL_;
          IF SERVAFF='A' THEN XSERVAFF=1;             *Army;
            ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
            ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
```

```
            ELSE XSERVAFF=4;                              *Other;

        IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

        IF XTNEXREG = . THEN DELETE;  /* RSG 02/2005 USE CACSMPL TO DELETE MISSING FIELDS*/

        IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

        NXNS_COV = XINS_COV;                /*JSO 04/26/2007 added for reservists logic*/
                                            /*JSO    07/30/2007,    added    DBENCAT,    NXNS_COV
conditions*/
        IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
        IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
           NXNS_COV = 3;
           XENR_PCM = .;
        END;
                          /* Note:  use tmp_cell in step2q.sas */
        LENGTH TMP_CELL XSERVREG 8;
        TMP_CELL = STRATUM; /*KRR 04/03/2006, changed from ADJ_CELL*/

        IF XTNEXREG = 1 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 1;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
           ELSE XSERVREG = 4;
        END;

        IF XTNEXREG = 2 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 5;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
           ELSE XSERVREG = 8;
        END;

        IF XTNEXREG = 3 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 9;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
           ELSE XSERVREG = 12;
        END;

        IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
           IF XOCONUS = 1 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 13;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 14;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 15;
              ELSE                      XSERVREG = 16;
           END;
           IF XOCONUS = 2 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 17;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 18;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 19;
              ELSE                      XSERVREG = 20;
           END;
           IF XOCONUS = 3 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 21;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 22;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 23;
              ELSE                      XSERVREG = 24;
           END;
        END;

    RUN;

    ***************************************************************************
    * Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
    * subsets. Create the region dummies.  Recode region 7 to region 8.
    ***************************************************************************;
    DATA ENTIRE;
       SET ENTIRE;
       LENGTH DEFAULT = 4;
       IF FIELDAGE NE "   " THEN DO;   /*MJS 01/26/04*/
          AGE1824=0;
          AGE2534=0;
```

```
          AGE3544=0;
          AGE4554=0;
          AGE5564=0;
          AGE6574=0;
          AGE75UP=0;
          IF     ( '018' <= FIELDAGE <= '024' ) THEN AGE1824=1;   /*MJS 01/26/04*/
          ELSE IF ( '025' <= FIELDAGE <= '034' ) THEN AGE2534=1;
          ELSE IF ( '035' <= FIELDAGE <= '044' ) THEN AGE3544=1;
          ELSE IF ( '045' <= FIELDAGE <= '054' ) THEN AGE4554=1;
          ELSE IF ( '055' <= FIELDAGE <= '064' ) THEN AGE5564=1;
          ELSE IF ( '065' <= FIELDAGE <= '074' ) THEN AGE6574=1;
          ELSE IF (        FIELDAGE  > '074' ) THEN AGE75UP=1;
       END;

       *************************************************************************
       * Create the FEMALE dummy variable.
       *************************************************************************;
       IF XSEXA = 2 THEN
          FEMALE = 1;
       ELSE
          FEMALE = 0;

       *************************************************************************
       * Create the beneficiary group/enrollment group subsets.
       *************************************************************************;
       GROUP1 = 0;
       GROUP2 = 0;
       GROUP3 = 0;
       GROUP4 = 0;
       GROUP5 = 0;
       GROUP6 = 0;
       GROUP7 = 0;
       GROUP8 = 1;      * EVERYONE;

       IF (NXNS_COV IN (1,2,6)  AND H09004>=2) THEN GROUP1 = 1;
       IF (XENR_PCM IN (1,2,6)  AND H09004>=2) THEN GROUP2 = 1;
       /* JSO 04/05/2007 conditions to run RC type */
       IF "&RCTYPE" = 'ReportCards' AND (XENR_PCM IN (3,7) AND H09004>=2) THEN GROUP3 = 1;
       ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND ((XENR_PCM IN (3,7) AND H09004>=2) OR
NXNS_COV IN (3,9)) THEN GROUP3 = 1;
       IF NXNS_COV IN   (3,9)       THEN  GROUP4 = 1;  /*JSO 08/24/2006, Deleted 4,5*//*JSO
07/30/2007, Added 9*/
       IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN GROUP5 = 1;
                                           /*JSO 07/30/2007, added DBENCAT conditions*/
       IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN GROUP6 = 1;
                                           /*JSO 07/30/2007, added DBENCAT conditions*/
       IF XBNFGRP IN (3,4)       THEN GROUP7 = 1;

       *************************************************************************
       * Recode variables with Never, Sometimes, Usually and Always:
       *    Recode Never & Sometimes (1 & 2) to 1.
       *    Recode Usually (3) to 2.
       *    Recode Always (4) to 3.
       *************************************************************************;

       IF H09007 = 1     THEN R09007 = 1;
       ELSE IF H09007 = 2 THEN R09007 = 1;
       ELSE IF H09007 = 3 THEN R09007 = 2;
       ELSE IF H09007 = 4 THEN R09007 = 3;
       ELSE IF H09007 < 0 THEN R09007 = .;

       IF H09010 = 1     THEN R09010 = 1;
       ELSE IF H09010 = 2 THEN R09010 = 1;
       ELSE IF H09010 = 3 THEN R09010 = 2;
       ELSE IF H09010 = 4 THEN R09010 = 3;
       ELSE IF H09010 < 0 THEN R09010 = .;

       IF H09021 = 1     THEN R09021 = 1;
       ELSE IF H09021 = 2 THEN R09021 = 1;
       ELSE IF H09021 = 3 THEN R09021 = 2;
       ELSE IF H09021 = 4 THEN R09021 = 3;
       ELSE IF H09021 < 0 THEN R09021 = .;

       IF H09022 = 1     THEN R09022 = 1;
```

```
ELSE IF H09022 = 2 THEN R09022 = 1;
ELSE IF H09022 = 3 THEN R09022 = 2;
ELSE IF H09022 = 4 THEN R09022 = 3;
ELSE IF H09022 < 0 THEN R09022 = .;

IF H09023 = 1      THEN R09023 = 1;
ELSE IF H09023 = 2 THEN R09023 = 1;
ELSE IF H09023 = 3 THEN R09023 = 2;
ELSE IF H09023 = 4 THEN R09023 = 3;
ELSE IF H09023 < 0 THEN R09023 = .;

IF H09024 = 1      THEN R09024 = 1;
ELSE IF H09024 = 2 THEN R09024 = 1;
ELSE IF H09024 = 3 THEN R09024 = 2;
ELSE IF H09024 = 4 THEN R09024 = 3;
ELSE IF H09024 < 0 THEN R09024 = .;

IF H09029 = 1      THEN R09029 = 1;
ELSE IF H09029 = 2 THEN R09029 = 1;
ELSE IF H09029 = 3 THEN R09029 = 2;
ELSE IF H09029 = 4 THEN R09029 = 3;
ELSE IF H09029 < 0 THEN R09029 = .;

IF H09033 = 1      THEN R09033 = 1;
ELSE IF H09033 = 2 THEN R09033 = 1;
ELSE IF H09033 = 3 THEN R09033 = 2;
ELSE IF H09033 = 4 THEN R09033 = 3;
ELSE IF H09033 < 0 THEN R09033 = .;

IF H09040 = 1      THEN R09040 = 1;
ELSE IF H09040 = 2 THEN R09040 = 1;
ELSE IF H09040 = 3 THEN R09040 = 2;
ELSE IF H09040 = 4 THEN R09040 = 3;
ELSE IF H09040 < 0 THEN R09040 = .;

IF H09041 = 1      THEN R09041 = 1;
ELSE IF H09041 = 2 THEN R09041 = 1;
ELSE IF H09041 = 3 THEN R09041 = 2;
ELSE IF H09041 = 4 THEN R09041 = 3;
ELSE IF H09041 < 0 THEN R09041 = .;

IF H09045 = 1      THEN R09045 = 1;
ELSE IF H09045 = 2 THEN R09045 = 1;
ELSE IF H09045 = 3 THEN R09045 = 2;
ELSE IF H09045 = 4 THEN R09045 = 3;
ELSE IF H09045 < 0 THEN R09045 = .;

IF H09046 = 1      THEN R09046 = 1;
ELSE IF H09046 = 2 THEN R09046 = 1;
ELSE IF H09046 = 3 THEN R09046 = 2;
ELSE IF H09046 = 4 THEN R09046 = 3;
ELSE IF H09046 < 0 THEN R09046 = .;

*************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
*************************************************************************;
R09027 = H09027;  IF R09027 < 0 THEN R09027 = .;
R09031 = H09031;  IF R09031 < 0 THEN R09031 = .;
R09018 = H09018;  IF R09018 < 0 THEN R09018 = .;
R09047 = H09047;  IF R09047 < 0 THEN R09047 = .;
R09063 = H09063;  IF R09063 < 0 THEN R09063 = .;

*************************************************************************
* Create region and service affiliation dummies.
*************************************************************************;
IF XSERVREG NE . THEN DO;  /*JSO 08/24/2006, Changed 16 to 24*/
   ARRAY REGDUMS (24) REG01 REG02 REG03 REG04 REG05 REG06
                      REG07 REG08 REG09 REG10 REG11 REG12
                      REG13 REG14 REG15 REG16 REG17 REG18
                      REG19 REG20 REG21 REG22 REG23 REG24;
   DO I = 1 TO 24;
      REGDUMS(I)=0;
   END;
```

```
         IF        XSERVREG= 1  THEN REG01  =1;
         ELSE IF  XSERVREG= 2  THEN REG02  =1;
         ELSE IF  XSERVREG= 3  THEN REG03  =1;
         ELSE IF  XSERVREG= 4  THEN REG04  =1;
         ELSE IF  XSERVREG= 5  THEN REG05  =1;
         ELSE IF  XSERVREG= 6  THEN REG06  =1;
         ELSE IF  XSERVREG= 7  THEN REG07  =1;
         ELSE IF  XSERVREG= 8  THEN REG08  =1;
         ELSE IF  XSERVREG= 9  THEN REG09  =1;
         ELSE IF  XSERVREG= 10 THEN REG10  =1;
         ELSE IF  XSERVREG= 11 THEN REG11  =1;
         ELSE IF  XSERVREG= 12 THEN REG12  =1;
         ELSE IF  XSERVREG= 13 THEN REG13  =1;
         ELSE IF  XSERVREG= 14 THEN REG14  =1;
         ELSE IF  XSERVREG= 15 THEN REG15  =1;
         ELSE IF  XSERVREG= 16 THEN REG16  =1;
         ELSE IF  XSERVREG= 17 THEN REG17  =1;
         ELSE IF  XSERVREG= 18 THEN REG18  =1;
         ELSE IF  XSERVREG= 19 THEN REG19  =1;
         ELSE IF  XSERVREG= 20 THEN REG20  =1;
         ELSE IF  XSERVREG= 21 THEN REG21  =1;
         ELSE IF  XSERVREG= 22 THEN REG22  =1;
         ELSE IF  XSERVREG= 23 THEN REG23  =1;
         ELSE IF  XSERVREG= 24 THEN REG24  =1;

         ARRAY SRVDUMS (4) SRV01 SRV02 SRV03 SRV04;
         DO I = 1 TO 4;    /*Needed for consumer watch ONLY */
             SRVDUMS(I)=0;
         END;
         IF        XSERVAFF = 1 THEN SRV01 = 1;
         ELSE IF  XSERVAFF = 2 THEN SRV02 = 1;
         ELSE IF  XSERVAFF = 3 THEN SRV03 = 1;
         ELSE IF  XSERVAFF = 4 THEN SRV04 = 1;

    END;

RUN;

*****************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
*****************************************************************************;
%INCLUDE "CONVERT.SAS";

%CONT2(DSN=ENTIRE, NUM=4,  Y=R09018 R09047 R09027 R09031);
%CONT3(DSN=ENTIRE, NUM=12, Y=R09007 R09010 R09029 R09033
                             R09021 R09022 R09023 R09024
                             R09040 R09041 R09045 R09046);

*****************************************************************************
* Sort the main file to reorder it by MPRID.
*****************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*****************************************************************************
* Print the contents of ENTIRE dataset.
*****************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*****************************************************************************
* Print some of the recoded records.
*****************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       FIELDAGE    /*MJS 01/26/04*/
       XTNEXREG
       XSERVAFF
       XSERVREG
       USA
       ENBGSMPL
       XSEXA
```

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```
                  STRATUM    /*KRR 04/03/2006 Changed from ADJ_CELL*/
                  XINS_COV
                  NXNS_COV   /*JSO 04/26/2007, added for reservists logic*/
                  DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                  XENR_PCM
                  &WGT.
               ;
        RUN;

        ****************************************************************************
        * Print some of the recoded records.
        ***************************************************************************;
        PROC PRINT DATA=ENTIRE(OBS=60);
           TITLE2 'Print of AGE and SEX dummies';
           VAR FIELDAGE   /*MJS 01/26/04*/
               AGE1824
               AGE2534
               AGE3544
               AGE4554
               AGE5564
               AGE6574
               AGE75UP

               XSEXA
               FEMALE

               ENBGSMPL
               XINS_COV
               NXNS_COV
               XENR_PCM
               XBNFGRP
               GROUP1
               GROUP2
               GROUP3
               GROUP4
               GROUP5
               GROUP6
               GROUP7
             ;
        RUN;

        PROC PRINT DATA=ENTIRE(OBS=60);
           TITLE2 'Print of recoded question variables';
           VAR H09007  R09007
               H09010  R09010
               H09021  R09021
               H09022  R09022
               H09023  R09023
               H09024  R09024
               H09029  R09029
               H09033  R09033
               H09040  R09040
               H09041  R09041
               H09045  R09045
               H09046  R09046
               H09018  R09018
               H09027  R09027
               H09031  R09031
               H09047  R09047
               H09063  R09063
             ;
        RUN;

        /*JSO 08/24/2006, Changed 16 to 24*/
        PROC PRINT DATA=ENTIRE(OBS=60);
           TITLE2 'Print of recoded REGION variables';
           VAR XSERVREG
               REG01
               REG02
               REG03
               REG04
               REG05
               REG06
               REG07
```

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```
            REG08
            REG09
            REG10
            REG11
            REG12
            REG13
            REG14
            REG15
            REG16
            REG17
            REG18
            REG19
            REG20
            REG21
            REG22
            REG23
            REG24;
    RUN;


    PROC PRINT DATA=ENTIRE(OBS=60);
       TITLE2 'Print of recoded service affiliation variables';
       VAR XSERVREG
           XSERVAFF
           XOCONUS /*JSO 08/24/2006, Changed Overseas Regions*/
           SRV01
           SRV02
           SRV03
           SRV04
            ;
    RUN;

    ***************************************************************************
    * Create the 7 subgroups for processing by STEP2.SAS.
    ***************************************************************************;
    DATA OUT.GROUP1
         OUT.GROUP2
         OUT.GROUP3
         OUT.GROUP4
         OUT.GROUP5
         OUT.GROUP6
         OUT.GROUP7
         OUT.GROUP8;

         SET ENTIRE;

         DROP
            H09007
            H09010
            H09021
            H09022
            H09023
            H09024
            H09029
            H09033
            H09040
            H09041
            H09045
            H09046
            H09018
            H09027
            H09031
            H09047
            H09063
             ;
         IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
         IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
         IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
         IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
         IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
         IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
         IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
          OUTPUT OUT.GROUP8;
    RUN;
```

G.1.B   Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\CONVERT.SAS - CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES.

```
*******************************************************************************
*
* PROGRAM:  CONVERT.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (8687-330)
* PURPOSE:  CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES FOR CONSISTENCY
*           WITH THE TOPS SURVEY.
* WRITTEN:  October 2000 BY ERIC SCHONE
*
* MODIFIED: October 2000 BY KEITH RATHBUN, Added PROLOG.  Also, added DSN
*           to argument lists.
*
* INPUTS:  1) User-specified SAS Dataset
*
* OUTPUTS: 1) User-specified SAS Dataset with recoded values
*
* NOTES:
*
* 1) Arguments for the CONT1-CONT3 macros are as follows:
*    a) SAS dataset name (dsn)
*    b) Number of variables to be converted (num)
*    c) List of variables to be converted (y)
* 2) These macros assume that the response items have already been
*    converted/recoded to CAHPS scales.
*
*******************************************************************************
* CONT1 - Convert big problem, small problem, not a problem questions to
*         proportional values.
*****************************************************************************;
%macro cont1(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i = 1 to &num;
      if vars(i) ne . and vars(i) ne 3 then vars(i) = 0;
      if vars(i) = 3 then vars(i) = 1;
   end;
run;
%mend cont1;

*******************************************************************************
* CONT2 - Convert rating questions to proportional values.
*****************************************************************************;
%macro cont2(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) < 8 then vars(i) = 0;
      if vars(i) in (8,9,10) then vars(i) = 1;
   end;
run;
%mend cont2;

*******************************************************************************
* CONT3 - Convert Never, Sometimes, Usually, Always questions to
*         proportional values.
*****************************************************************************;
%macro cont3(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) >= 2 then vars(i) = 2;
      vars(i) = vars(i) - 1;
   end;
run;
%mend cont3;
```

```
    ****************************************************************************
    *
    *  Project:  DoD - Quarterly Adult Report Cards
    *  Program:  STEP2Q.SAS
    *  Purpose:  Generate risk-adjusted CAHPS Scores for Adult Report Card.
    *
    *  Requires: Program STEP1Q.SAS must be run prior to running this program.
    *
    *  The adult report card contains a large number of risk-adjusted scores.
    *  Some scores are calculated from responses to individual survey questions.
    *  Composite scores are calculated by combining scores from individual
    *  questions.  The scores then are compared with external civilian
    *  benchmarks.  The programming tasks involved in building the report
    *  card are:
    *
    *       1) Preparing data for analyses
    *       2) Estimating risk adjustment models
    *       3) Calculating risk-adjusted values and variances
    *       4) Calculating benchmarks
    *       5) Comparing risk-adjusted values to benchmarks
    *          and hypothesis testing
    *
    *  Subgroup Definitions:
    *  _____
    *     Seven Subgroups           Definitions
    *  _____
    *  1. Prime enrollees           XINS_COV IN (1,2,6) AND H09004>=2
    *  2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004>=2
    *  3. Enrollees w/civ PCM       XENR_PCM = 3        AND H09004>=2
    *  4. Nonenrollees              XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
    *  5. Active duty               XBNFGRP = 1
    *  6. Active duty dependents    XBNFGRP = 2
    *  7. Retirees and dependents   XBNFGRP IN (3,4)
    *
    *  Previous Program:  STEP1Q.SAS
    *
    *  Modified: 1) 04/10/02 By Mike Scott, Updated variable names for 2002
    *               survey.
    *            2) 07/11/02 By Mike Scott, Changed R00077 to R04075, since
    *               H02077 (health status) is back and was recoded to R04075
    *               in STEP1Q.
    *            3) 03/21/03 By Mike Scott, Updated variable names for 2003
    *               survey.
    *            4) 03/24/04 By Mike Scott, Updated for 2004 survey.
    *            5) 09/24/2004 By Regina Gramss, Updated to use XTNEXREG instead of XREGION
    *               and to update for Q3 2004 data.
    *            6) 01/25/2005 By Regina Gramss, Changed codes to use XSERVREG instead of
    *               XTNEXREG to include service affiliation.
    *            7) 04/2005 By Regina Gramss, Updated field names from 2004 to 2005
    *            8) 07/2005 By Regina Gramss, Updated for Q2 2005
    *            9) 10/2005 By Regina Gramss, Updated for Q3 2005
    *           10) 12/2005 By Regina Gramss, Updated for Q4 2005
    *           11) March 21, 2006 by Keith Rathbun, updated variable names
    *               for Q2 FY 2006.
    *           12) 07/2006 By Justin Oh, Updated for Q3 FY 2006
    *           13) Aug 24, 2006 by Justin Oh, changed overseas to 3 regions.
    *               Regions have been changed from 16 categories to 24.
    *           14) April 7, 2009 by Mike Rudacille, changed variable names to reflect
    *               modifications to beneficiary reports necessary for V4
    *           15) June 22, 2009 By Keith Rathbun, Change weight variable from
    *               FWRWT_V4 back to FWRWT.
    *
    ****************************************************************************;
    OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;
    LIBNAME IN1     "DATA";
    LIBNAME OUT     "DATA";
    LIBNAME OUT2    "DATA\ADULTHATFILES";
    LIBNAME LIBRARY "..\..\..\Data\Afinal\fmtlib";
```

```
    /* RSG 02/2005 hard coded skelreg so data does not have to be copied from quarter to
quarter*/
    /* JSO 08/24/2006, Changed from 16 to 24 Regions */

    DATA SKELREG (COMPRESS=NO);
       INPUT XSERVREG;
       DATALINES;
          1
          2
          3
          4
          5
          6
          7
          8
          9
          10
          11
          12
          13
          14
          15
          16
          17
          18
          19
          20
          21
          22
          23
          24
    ;
    RUN;

    ****************************************************************************
    ****************************************************************************
    * Set GLOBAL parameters here.
    ****************************************************************************
    ****************************************************************************;

    ****************************************************************************
    * Set the number of Dependent variables to process.
    * One does not need to start at 1, but the max must be >= min.
    ****************************************************************************;
    %LET MIN_VAR =  1;
    %LET MAX_VAR = 16;

    ****************************************************************************
    * Set the number of subgroups to process.
    ****************************************************************************;
    %LET MIN_GRP = 1;
    %LET MAX_GRP = 8;

    ****************************************************************************
    * These are expected to remain the same for a particular dependent
    * variable run.
    ****************************************************************************;
    %LET WGT      = FWRWT;
    %LET IND_VAR1 = R09063;
    %LET IND_VAR2 =  ;  * FEMALE;
    %LET IND_VAR3 =  ;  * SREDHIGH;
    %LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;


    %LET TITL1 = Prime Enrollees;
    %LET TITL2 = Enrollees w/military PCM;
    %LET TITL3 = Enrollees w/civilian PCM;
    %LET TITL4 = Nonenrollees;
    %LET TITL5 = Active Duty;
    %LET TITL6 = Active Duty Dependents;
    %LET TITL7 = Retirees and Dependents;
    %LET TITL8 = All Beneficiaries;
```

```
******************************************************************************
* GETTING NEEDED CARE.
******************************************************************************;
%LET DEPVAR1  = R09029;
%LET DEPVAR2  = R09033;


******************************************************************************
* GETTING NEEDED CARE QUICKLY.
******************************************************************************;
%LET DEPVAR3  = R09007;
%LET DEPVAR4  = R09010;


******************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
******************************************************************************;
%LET DEPVAR5  = R09021;
%LET DEPVAR6  = R09022;
%LET DEPVAR7  = R09023;
%LET DEPVAR8  = R09024;


******************************************************************************
* CUSTOMER SERVICE.
******************************************************************************;
%LET DEPVAR9  = R09040;
%LET DEPVAR10 = R09041;


******************************************************************************
* CLAIMS PROCESSING.
******************************************************************************;
%LET DEPVAR11 = R09045;
%LET DEPVAR12 = R09046;


******************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
******************************************************************************;
%LET DEPVAR13 = R09018;


******************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
******************************************************************************;
%LET DEPVAR14 = R09047;


******************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
******************************************************************************;
%LET DEPVAR15 = R09027;


******************************************************************************
* SPECIALITY CARE: 0 - 10.
******************************************************************************;
%LET DEPVAR16 = R09031;

%MACRO SCORE;
************************************;
* use this macro for all groups;
* super region variables are to be used     ;
************************************;
%PUT ************************************;
%PUT STARTING MACRO SCORE;
%PUT "GROUP    = " GROUP&IGRP;
%PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
%PUT "DEP_VAR  = " &&DEPVAR&IVAR;
%PUT "IND_VAR1 = " &IND_VAR1;
%PUT "IND_VAR2 = " &IND_VAR2;
%PUT "IND_VAR3 = " &IND_VAR3;
%PUT "WGT      = " &WGT;
%PUT ************************************;

*----------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*----------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
```

```
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                        PRED&IGRP RESID&IGRP XSERVREG &&DEPVAR&IVAR)
             P = PRED&IGRP
             R = RESID&IGRP;

RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XSERVREG &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
        TITLE2 "BETAS:  file with coefficients";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
DATA COEFFREG(KEEP=XSERVREG NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XSERVREG=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;
```

```
* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XSERVREG;
  VAR    &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XSERVREG REGCNT&IGRP REGWGT&IGRP);
      BY XSERVREG;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT&IGRP;
  CLASS  XSERVREG;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XSERVREG)
           REGFILE1(KEEP = ADJ&IGRP XSERVREG);
     BY XSERVREG;
```

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```
              DEPENDNT = "&&DEPVAR&IVAR";
              IF INS;
        RUN;


        * merge the previous groups regional results (if any);
        * with the region level std err and the region;
        * level results from the current group/dependent var;
        DATA OUT.R_&&DEPVAR&IVAR;
            MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
                    R&IGRP&&DEPVAR&IVAR     /*KRR - removed perm dataset ref to OUT2 */
                    REG_WGTS
                    REGFILE1;
            BY XSERVREG;
            DEPENDNT = "&&DEPVAR&IVAR";
            IF INS;
        RUN;

        PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
             TITLE2 "Print of XSERVREG variables in &&DEPVAR&IVAR";
             TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        RUN;
        %MEND SCORE;

        %MACRO MAKE_INC;
        ***************************************;
        * creates include files for later Procs;
        * Needs to be run each time.  Called   ;
        * in the outer (beneficiary loop).     ;
        * I chose this method because it was   ;
        * clearer(to me at least).             ;
        * This macro needs to be run once per  ;
        * Dep var per subgroup.                ;
        ***************************************;


        * Drop records where the dependent var is missing;
        * Drop records with missing catchment or region values;
          DATA GROUP&IGRP;
              SET IN1.GROUP&IGRP;
              IF &&DEPVAR&IVAR NOT = .;
          RUN;

         DATA _NULL_;
             SET GROUP&IGRP END = EOF;
             IF &&DEPVAR&IVAR NOT = .;

             ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
             RETAIN AGECNT 0;
             RETAIN CNT 0;
             ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
             ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
             RETAIN AGENAM;
             RETAIN AGENAMX;
             ARRAY REGCNT(24)  8 REGCNT01- REGCNT24; /*JSO 08/24/2006, Changed from 16 to 24*/
             RETAIN CATCNT 0;
             RETAIN REGCNT 0;

             * create a name array for the parent age dummies;
             IF _N_ = 1 THEN DO;
                AGENAM(1) = "AGE1824";
                AGENAM(2) = "AGE2534";
                AGENAM(3) = "AGE3544";
                AGENAM(4) = "AGE4554";
                AGENAM(5) = "AGE5564";
                AGENAM(6) = "AGE6574";
                AGENAM(7) = "AGE75UP";
             END;

             * total record count;
             CNT + 1;

             * count records in each age group;
             * we will use only age groups with more;
             * than 2 obs;
             IF AGE1824  = 1 THEN AGECNT(1) + 1;
```

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```
          IF AGE2534  = 1 THEN AGECNT(2) + 1;
          IF AGE3544  = 1 THEN AGECNT(3) + 1;
          IF AGE4554  = 1 THEN AGECNT(4) + 1;
          IF AGE5564  = 1 THEN AGECNT(5) + 1;
          IF AGE6574  = 1 THEN AGECNT(6) + 1;
          IF AGE75UP  = 1 THEN AGECNT(7) + 1;

       * count records in each XSERVREG group;
       * we will only use XSERVREGs with more than than 2 obs;
       * I am using the region value as the subscript;
       * to make the code simpler and more readable;
       IF 1<= XSERVREG <=24  THEN DO; /*JSO 08/24/2006, Changed from 16 to 24*/
          REGCNT(XSERVREG) = REGCNT(XSERVREG) + 1;
       END;

       IF EOF THEN GOTO ENDFILE;
       RETURN;

   ENDFILE:
       * create a title common to all procs in the current group;
       TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

       * display counts in the log;
       %IF &DEBUGFLG > 0  %THEN %DO;
          PUT ' ';
          PUT 'AT EOF:';
          PUT "TOTAL CNT = "     CNT;
          PUT AGENAM(1) "  " AGECNT(1)=;
          PUT AGENAM(2) "  " AGECNT(2)=;
          PUT AGENAM(3) "  " AGECNT(3)=;
          PUT AGENAM(4) "  " AGECNT(4)=;
          PUT AGENAM(5) "  " AGECNT(5)=;
          PUT AGENAM(6) "  " AGECNT(6)=;
          PUT AGENAM(7) "  " AGECNT(7)=;
          PUT " ";

          DO I = 1 TO 24;  /*JSO 08/24/2006, Changed from 16 to 24*/
             IF(REGCNT(I) > 0) THEN DO;
                PUT  'REG' I Z2. REGCNT(I) 6.;
             END;
          END;
          PUT ' ';


        %END;    *** of debug test;

       *--------------------------------------------------------;
       * This include is for the regression using regions;
       * in this case we drop the last XSERVREG;
       FILE 'REGRSREG.INC';
       PUT @6  "MODEL  &&DEPVAR&IVAR = ";
       IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
       IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
       IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

       CNT2 = 0;
       * setup an array of those age groups that have > 1 obs;
       DO I = 1 TO 7;
          IF AGECNT(I) > 1 THEN DO;
             CNT2 + 1;
             AGENAMX(CNT2) = AGENAM(I);
          END;
       END;

       * now drop the last category to create;
       * an omitted category which is required;
       * to solve the regression properly;
       DO I = 1 TO CNT2-1;
          PUT @12 AGENAMX(I);
       END;

       * ditto for the catchment areas with > 0 obs;
       * in this case we drop the the first USABLE category;
       * this is not consistent with the catchment area code;
```

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```
* but this is the method that Portia used;
FIRST = 0;            /*JSO 08/24/2006, Changed from 16 to 24*/
DO I = 1 TO 24;   * skip the 1st region with 1+ obs;
    IF REGCNT(I) > 0 THEN DO;
        IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
        FIRST = 1;
    END;
END;
PUT @11 ';';


*---------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
    PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*---------------------------------------------------------;
* create an ARRAY statement of the desired risk factors;
* called adjusters in the specs and in the code;
FILE 'RISKARRY.INC';
PUT @10  "ARRAY COEFFS(*) $8";
DO I = 1 TO CNT2;
    PUT @12 AGENAMX(I);
END;

CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*---------------------------------------------------------;
* create an ARRAY of mean names for the output;
* from a proc MEANS of the Risk Factors in RISKARRY;
FILE 'RISKMEAN.INC';
```

```
        IND_CNT = CNT2 + CNT3;
        PUT @6 "ARRAY MEANS(*) $8";
        DO I = 1 TO IND_CNT;
           PUT @12 "MEAN" I Z2.;
        END;
        PUT @11 ';';

 *   ---------------------------------------------------;
 *   create the equivalent of the following statement;
 *   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
        FILE 'MEANFILE.INC';
        PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
        DO I = 1 TO IND_CNT;
           PUT @12 "MEAN" I Z2.;
        END;
        PUT @11 ';';

        *----------------------------------------------------------;
        * create a super region area array;
        * with at least ONE obs;
        FILE 'REGARRAY.INC';
        PUT @10  "ARRAY REGRHS(*) $8";
        DO I = 1 TO 24;                /*JSO 08/24/2006, Changed from 16 to 24*/
           IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
              PUT  @16 'REG' I Z2.;
           END;
        END;
        PUT @11 ';';
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=GROUP&IGRP;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
/* PROC MEANS DATA=out.group8;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;*/
%MEND MAKE_INC;

%MACRO R_SUDAAN(INFILE);
****************************************************
* Use this macro to create standard err (variances)
* for XSERVREGs.
***************************************************;
%PUT ****************************************;
%PUT STARTING MACRO R_SUDAAN (XSERVREG);
%PUT ****************************************;
```

```
DATA &INFILE;
   SET &INFILE;
   IF 1<= XSERVREG <= 24;  /*JSO 08/24/2006, Changed from 16 to 24*/
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (XSERVREG)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for super regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XSERVREG;
   SUBGROUP XSERVREG;
   LEVELS 24;   /*JSO 08/24/2006, Changed from 16 to 24*/
   OUTPUT  SEMEAN
        / REPLACE TABLECELL=DEFAULT
          FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XSERVREG SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print XSERVREG DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

%MEND  R_SUDAAN;


%***********************************;
%*  call the macros;
%***********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %SCORE;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

G.1.D   Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\REGRSREG.INC - INCLUDE FILE1 IN STEP2Q.SAS.

```
MODEL  R09031 =
       R09063
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG23
       REG24
       ;
```

G.1.E   Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\RISKARRY.INC - INCLUDE FILE2 IN STEP2Q.SAS.

```
ARRAY COEFFS(*) $8
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
 ;
```

G.1.F   Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\RISKMEAN.INC - INCLUDE FILE3 IN STEP2Q.SAS.

```
ARRAY MEANS(*) $8
        MEAN01
        MEAN02
        MEAN03
        MEAN04
        MEAN05
        MEAN06
      ;
```

```
ARRAY REGRHS(*) $8
        REG01
        REG02
        REG03
        REG04
        REG05
        REG06
        REG07
        REG08
        REG09
        REG10
        REG11
        REG12
        REG13
        REG14
        REG15
        REG16
        REG17
        REG18
        REG19
        REG20
        REG21
        REG23
        REG24
    ;
```

G.1.H   **Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\RISKVARS.INC - INCLUDE FILE5 IN STEP2Q.SAS.**

```
VAR
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
 ;
```

G.1.I **Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\MEANFILE.INC - INCLUDE FILE6 IN STEP2Q.SAS.**

```
OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN =
       MEAN01
       MEAN02
       MEAN03
       MEAN04
       MEAN05
       MEAN06
     ;
```

```
     ****************************************************************************
     * Project:  DoD – Quarterly Adult Report Cards
     * Program:  COMPOSIT.SAS
     * Purpose:  Generate Quarterly Adult Report Card composite scores
     * Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
     *           to this program.
     *
     * Modified: 1) 02/27/2001 By Keith Rathbun, Small changes to input DSNs to
     *              accommodate the move of ALLSCORE.SAS functionality into the
     *              STEP2Q.SAS program.
     *           2) 01/08/2002 By Daniele Beahm, Changed versions in libname statements
     *              so program can be run with SAS v8 and still produce SAS v612 datasets.
     *           3) 04/10/2002 By Mike Scott, Updated variable names for 2002
     *              survey.
     *           4) 03/21/2003 By Mike Scott, Updated variable names for 2003
     *              survey.
     *           5) 03/24/2004 By Mike Scott, Updated for 2004.
     *           6) 06/15/2004 By Regina Gramss, Update for Q2, added in
     *              codes to compensate for any negative trend and to
     *              print out the number of nonmissing data producing the
     *              negative trend - those equal to or more than 30 nonmissing
     *              data need to be further evaluated.
     *           7) 09/2004 By Regina Gramss, Update for Q3, added in codes to
     *              use XTNEXREG field instead of XREGION.
     *           8) 01/2005 By Regina Gramss, Changed codes to use XSERVREG instead of
     *              XTNEXREG, to incorporate service affliliation.
     *           9) 04/2005 By Regina Gramss, Updated field names from 2004 to 2005.
     *          10) 01/31/2006 By Regina Gramss, deleted following lines for "data r_&var1":
     *              "%if &i~=8 %then %do" (keep set statement then delete the following:)
     *              "%end
     *               %else %do
     *                                             set   in2.h5&var1(rename=(resid5=r_&var1))
     in2.h6&var1(rename=(resid6=r_&var1)) in2.h7&var1(rename=(resid7=r_&var1))
     *               %end"
     *          11) 03/21/2006 By Keith Rathbun, Updated variable names for 2003
     *              survey.
     *          12) 04/30/2008 By Justin Oh, Added Eric's upcase command to _name_ on line 204
     *          13) April 7, 2009 by Mike Rudacille, changed variable names to reflect
     *              modifications to beneficiary reports necessary for V4
     *          14) June 22, 2009 By Keith Rathbun, Change weight variable from
     *              FWRWT_V4 back to FWRWT.
     *
     ****************************************************************************;
     OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=YES NOFMTERR;
     libname in       "data";
     libname in2      "data\adulthatfiles";
     libname out      "data";
     LIBNAME LIBRARY "..\..\..\DATA\AFINAL\FMTLIB";

     %LET WGT = FWRWT;

      %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

       DATA _NULL_;
        %IF "&TYPE" = "R" %THEN %DO;
            CALL SYMPUT ('BYVAR','XSERVREG');
        %END; %ELSE
        %IF "&TYPE" = "C" %THEN %DO;
            CALL SYMPUT ('BYVAR','CACSMPL');
        %END;

      ****************************************;
      *   Create a Composite Score           ;
      ****************************************;
      DATA _NULL_;
          FILE 'FILES.INC';
          PUT @6 'SET';
          IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
          IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
          IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
```

```
     IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
     PUT @8 ';';
RUN;


DATA COMPOS&COMPOS;
     LENGTH DEPENDNT $ 8;
     %INCLUDE 'FILES.INC';
     DEPENDNT = "&TYPE.COMPOS&COMPOS";
RUN;

PROC SORT DATA=COMPOS&COMPOS;
     BY &BYVAR;
RUN;

PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
     TITLE "Print of COMPOS&COMPOS after sort";
RUN;

DATA COMPOS&COMPOS;
     SET COMPOS&COMPOS;
     BY &BYVAR;
  %IF "&TYPE" = "R" %THEN %DO;
     ARRAY N(*) REGCNT1 - REGCNT8;
     ARRAY W(*) REGWGT1 - REGWGT8;
     ARRAY TN(*) TOTCNT1 - TOTCNT8;
     ARRAY TW(*) TOTWGT1 - TOTWGT8;
  %END; %ELSE
  %IF "&TYPE" = "C" %THEN %DO;
     ARRAY N(*) CATCNT1 - CATCNT8;
     ARRAY W(*) CATWGT1 - CATWGT8;
     ARRAY TN(*) TOTCNT1 - TOTCNT8;
     ARRAY TW(*) TOTWGT1 - TOTWGT8;
  %END;
     ARRAY ADJ(*)    ADJ1 - ADJ8;
     ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
     ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
     RETAIN TOTADJ TN TW;
     RETAIN AVGADJ;

     IF FIRST.&BYVAR THEN DO;
        DO I = 1 TO DIM(TOTADJ);
           TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
        END;
     END; DROP I;

     PUT ' ';
     PUT ' --- STARTING LOOP1: ' &BYVAR=;
     DO I = 1 TO DIM(TOTADJ);
        PUT I= ADJ(I)=;
        IF ADJ(I) NE . THEN DO;
           TOTADJ(I) = TOTADJ(I) + ADJ(I);
           TN(I)=TN(I)+N(I);
           TW(I)=TW(I)+W(I);
        END;
        PUT I= ADJ(I)= TOTADJ(I)=;
     END;


     PUT ' ';
     PUT ' --- STARTING LOOP2: ' &BYVAR=;
     IF LAST.&BYVAR THEN DO;
        DO I = 1 TO DIM(TOTADJ);
           PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
           AVGADJ(I) = TOTADJ(I)/&QCOUNT;
           adj(i)=avgadj(i);
           N(I)=TN(I)/&QCOUNT;
           W(I)=TW(I)/&QCOUNT;
        END;
        OUTPUT;
     END;

RUN;
```

```
%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
%if &type=R|(&i=1|&i=2|&i>4) %then %do;
%if &var1~= %then %do;
%let n=r_&var1;
%let m=s_&var1;

data s_&var1(rename=(semean&i=s_&var1));
set in.&type._&var1(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var1;
set in2.h&i.&var1(rename=(resid&i=r_&var1));
proc sort data=r_&var1; by mprid;
%end;
%if &var2~= %then %do;
%let n=%str(&n r_&var2);
%let m=%str(&m s_&var2);
data s_&var2(rename=(semean&i=s_&var2));
set in.&type._&var2(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var2;
set in2.h&i.&var2(rename=(resid&i=r_&var2));
proc sort data=r_&var2; by mprid;
%end;
%if &var3~= %then %do;
%let n=%str(&n r_&var3);
data s_&var3(rename=(semean&i=s_&var3));
set in.&type._&var3(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var3;
set in2.h&i.&var3(rename=(resid&i=r_&var3));
proc sort data=r_&var3; by mprid;
%let m=%str(&m s_&var3); %end;

%if &var4~= %then %do;
%let n=%str(&n r_&var4);
data s_&var4(rename=(semean&i=s_&var4));
set in.&type._&var4(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var4;
set in2.h&i.&var4(rename=(resid&i=r_&var4));
%let m=%str(&m s_&var4);
proc sort data=r_&var4; by mprid;
%end;
/* Merge residual files and estimate correlations */
data infile;
merge &n; by mprid;
proc sort; by &byvar;
proc corr  outp=outf noprint;
by &byvar;
var &n;
weight &WGT.;
data outf;
set outf; by &byvar;
where _type_='CORR';
/*   sum standard error of a row variable times correlation times standard error of each
column variable, then sum sums and take square root, divide by number of variables */
data final;
merge &m outf; by &byvar;
data final;
set final; by &byvar;
array r_val &n;
array s_val &m;
sde=0;
do i=1 to dim(s_val);
%do j=1 %to &qcount;
if upcase(_name_)=upcase("R_&&var&j") then
sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
%end;
end;
data sefin&compos._&i ERROR;
set final;
by &byvar;
if first.&byvar then tv=0;
```

```
     tv+sde;
    if last.&byvar then do;
     if tv >= 0 then sde&i=(tv**.5)/&qcount; /* RSG 06/22/2004 change to only do the power
calculation if the tv value is nonnegative*/
     else if tv < 0 then do;    /* RSG 06/22/2004 those with negative trend is set aside to
print out*/
       output error;          /*                     and determine whether it is from nonmissing
data of 30 or more*/
       sde&i=.;
     end;
     output sefin&compos._&i;
    end;

    run;
    /* RSG 06/22/2004 - count how many nonmissing values are in the trend data
       to determine whether the negative trend in above datastep
       (tv < 0) is something to be concerned about */
    proc means data=infile noprint;
    by &byvar;
    var &n;
    output out=miss (drop=_type_ _freq_) n=;
    data error2;
    merge error(in=a drop=&n) miss(in=b);
    by &byvar;
    if a;
    run;
    proc print data=error2; /* RSG 06/22/2004  print out negative trend data and count of
nonmissing data*/
    var &byvar tv &n;
    title "ERROR - NEGAVTIVE TREND FOR &N IN GROUP=&I. AND COMPOSE=&COMPOS.";
    run;
    title ' '; /** RSG 06/22/2004 - BLANK OUT TITLE FOR NEXT LOOP **/

    %if &i=1 %then %do;
    data sefin&compos;
    set sefin&compos._1(keep=&byvar sde&i); by &byvar;
    rename sde&i=semean&i;
    run;
    %end;
    %else %do;
    data sefin&compos;
    merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
    rename sde&i=semean&i;
    run;
    %end;


    %end;
    %end;

    data out.&type.compos&compos;
    merge compos&compos sefin&compos; by &byvar;
    run;
    PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
         TITLE1 COMPTITL;
     RUN;
    %MEND COMPOSIT;

    *-------------------------------------;
    *-        set the parameters here      -;
    *-------------------------------------;
    **********************************;
    * Call the macro for each composite ;
    **********************************;
    %COMPOSIT (type=R,compos=1,var1=R09029,var2=R09033,qcount=2);
    %COMPOSIT (type=R,compos=2,var1=R09007,var2=R09010,qcount=2);
    %COMPOSIT (type=R,compos=3,var1=R09021,var2=R09022,var3=R09023,var4=R09024,qcount=4);
    %COMPOSIT (type=R,compos=4,var1=R09040,var2=R09041,qcount=2);
    %COMPOSIT (type=R,compos=5,var1=R09045,var2=R09046,qcount=2);
```

G.1.K   Q4FY2009\PROGRAMS\REPORTCARDS\CAHPS_ADULTQ4FY2009\FILES.INC - INCLUDE FILE IN COMPOSIT.SAS.

```
SET
  IN.R_R09045
  IN.R_R09046
  ;
```

```
    *******************************************************************************
    *
    * PROGRAM:  LOADCAHQ.SAS
    * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
    * PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
    *
    * WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.SAS.
    *
    * INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
    *
    * OUTPUT:   1) LOADCAHQ.SD2 - Combined CAHPS Scores Database in WEB layout
    *
    * INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
    *              and composite data sets
    *
    * NOTES:
    *
    * 1) The following steps need to be run prior to this program:
    *    - STEP1Q.SAS - Recode questions and generate group files
    *    - STEP2Q.SAS - Calculate individual adjusted scores for group 1-7
    *    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
    *
    * 2) The output file (LOADCAHQ.SD2) will be run through the
    *    MAKEHTMQ.SAS program to generate the WEB pages.
    *
    * MODIFIED:
    *
    *  1) 04/10/2002 BY MIKE SCOTT, Updated variable names for 2002 survey.
    *  2) 03/21/2003 BY MIKE SCOTT, Updated variable names for 2003 survey.
    *  3) 06/25/2003 BY MIKE SCOTT, Updated for Q2 2003.
    *  4) 07/03/2003 BY MIKE SCOTT, Added TIMEPD variable to be set to the period
    *     or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
    *     setting to 'Composite'.
    *  5) 10/21/2003 BY MIKE SCOTT, Updated for Q3 2003.
    *  6) 01/07/2004 BY MIKE SCOTT, Updated for Q4 2003.
    *  7) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
    *  8) 06/15/2004 BY REGINA GRAMSS, Updated for q2 2004.
    *  9) 09/2004 BY REGINA GRAMSS, Updated for Q3 2004, changed all reference
    *     to XREGION to XTNEXREG.
    * 10) 01/2005 BY REGINA GRAMSS, Changed XTNEXREG to XSERVREG to include
    *     service affiliation into regions.
    * 11) 04/2005 BY REGINA GRAMSS, Updated 2004 field names for 2005.
    * 12) 07/2005 BY REGINA GRAMSS, updated for Q2 2005.
    * 13) 10/2005 BY REGINA GRAMSS, Updated for Q3 2005
    * 14) 12/2005 BY REGINA GRAMSS, Updated for Q4 2005
    * 15) 03/21/2006 BY KEITH RATHBUN, Updated variable names for 2006 survey.
    * 16) 07/12/2006 by Justin Oh, updated for Q3 FY 2006
    * 17) 10/03/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q3
    *     Changed Libname IN for Q4FY2006.
    * 18) 12/15/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q4
    *     Changed Libname IN for Q1FY2007.
    * 19) 04/05/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q1
    *     Changed Libname IN for Q2FY2007.
    * 20) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
    *     ReportCards OR PurchasedReportCards.
    * 21) 09/04/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q3
    *     Changed Libname IN for Q4FY2007.
    * 22) 01/10/2008 BY KEITH RATHBUN, Updated variable names for 2008 survey.
    * 23) 04/11/2008 by Justin Oh - Updated BENTYPE composite year to 2008 Q1
    *     Changed Libname IN for Q2FY2008.
    * 24) 06/13/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q2
    *     Changed Libname IN for Q3FY2008.
    * 25) 09/29/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q3
    *     Changed Libname IN for Q4FY2008.
    * 26) 04/11/2009 by Mike Rudacille - Changed variable names to reflect
    *     modifications to beneficiary reports necessary for V4
    * 27) 06/22/2009 by Keith Rathbun - Updated BENTYPE composite year to 2009 Q2
    *     Changed Libname IN for Q3FY2009.
    * 28) 09/30/2009 by Mike Rudacille - Updated BENTYPE composite year to 2009 Q3
    *     Changed Libname IN for Q4FY2009.
```

```
     *
     ********************************************************************************
     * Assign data libraries and options
     ********************************************************************************;
     /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards          ***/
     %LET RCTYPE = ReportCards;

     LIBNAME IN    "..\..\&RCTYPE\CAHPS_ADULTQ4FY2009\DATA";
     LIBNAME OUT   "DATA";
     LIBNAME LIBRARY   "..\..\..\DATA\AFINAL\FMTLIB";

     OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;


     ********************************************************************************
     * Load Format definitions for CAHPS Individual and composite data sets.
     ********************************************************************************;
     %INCLUDE "..\LOADCAHQ.INC";


     ********************************************************************************
     ********************************************************************************
     *
     * Process Macro Input Parameters:
     *
     * 1) QUESTION = Variable Question Name (DSN).
     *     - For individual Questions it is the variable name
     *     - For composite Questions it is called xCOMPOSn
     *       where n = a predefined composite # and
     *             x = R (Region) or C (Catchment)
     * 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
     * 3) REGCAT = Region/Catchment Area
     *
     ********************************************************************************
     ********************************************************************************;
     %MACRO PROCESS(QUESTION=,TYPE=);
     ********************************************************************************
     * Assign value for BENTYPE composite year
     ********************************************************************************;
     %LET YEAR = "2009 Q3"; * Note that this is based on Calendar Year here;

     ********************************************************************************
     * Assign prefix for weighted/unweighted count variables.
     * Unweighted counts is REGCNTn where n=group number.
     * Weighted counts is REGWGTn where n=group number.
     ********************************************************************************;
     %LET PREFIX = REG;

     ********************************************************************************
     *
     * Convert the CAHPS individual Scores Record into WEB layout.
     * There are 8 logical records (adjusted scores) per physical record:
     *
     * _____
     *   Adjusted Score            Definitions
     *   Group Number
     * _____
     * 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004>=2
     * 2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004>=2
     * 3. Enrollees w/civ PCM       XENR_PCM = 3        AND H09004>=2
     * 4. Nonenrollees             XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
     * 5. Active duty              XBNFGRP = 1
     * 6. Active duty dependents    XBNFGRP = 2
     * 7. Retirees and dependents  XBNFGRP IN (3,4)
     *
     ********************************************************************************;
     DATA &QUESTION;
        SET IN.&QUESTION;

        LENGTH MAJGRP  $30;
        LENGTH REGION  $25; **RSG 01/2005 - Changed format to be large enough to include service
     affiliation;
        LENGTH REGCAT  $26;
        LENGTH BENTYPE $50;
        LENGTH BENEFIT $34;
        LENGTH TIMEPD  $35; **MJS 07/03/03 Added line;
```

```
            ************************************************************************
            * Assign Region
            ************************************************************************;
            REGION  = PUT(XSERVREG,SERVREGF.);
            ************************************************************************
            * Assign benefit and benefit type
            ************************************************************************;
            IF "&TYPE" = "INDIVIDUAL" THEN DO;
               IF DEPENDNT IN("R09018","R09047","R09027","R09031") THEN
                  BENTYPE   =   "Composite";         ***MJS  07/03/03  Changed   from   BENTYPE   =
PUT(&YEAR,$BENTYPF.);
               ELSE
                  BENTYPE = PUT(DEPENDNT,$BENTYPF.);
               BENEFIT = PUT(DEPENDNT,$BENEF.);
               TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added line;
            END;
            ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
               BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
               BENEFIT = PUT(DEPENDNT,$BENEF.);
               TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added line;
            END;
            ELSE PUT "ERROR - Invalid TYPE = &TYPE";

            ************************************************************************
            * For now, Initialize Significance test to zero.
            ************************************************************************;
            SIG = 0;
            ************************************************************************
            * Assign Region
            ************************************************************************;
            REGCAT = PUT(XSERVREG,SERVREGF.);

            ************************************************************************
            * 1 = Prime Enrollees
            ************************************************************************;
            MAJGRP = PUT(1,MAJGRPF.);
            SCORE = ADJ1;
            SEMEAN = SEMEAN1;
            N_OBS = &PREFIX.CNT1;
            N_WGT = &PREFIX.WGT1;
            OUTPUT;

            ************************************************************************
            * 2 = Enrollees with Military PCM
            ************************************************************************;
            MAJGRP = PUT(2,MAJGRPF.);
            SCORE = ADJ2;
            SEMEAN = SEMEAN2;
            N_OBS = &PREFIX.CNT2;
            N_WGT = &PREFIX.WGT2;
            OUTPUT;

            ************************************************************************
            * 3 = Enrollees with Civilian PCM
            ************************************************************************;
            MAJGRP = PUT(3,MAJGRPF.);
            SCORE = ADJ3;
            SEMEAN = SEMEAN3;
            N_OBS = &PREFIX.CNT3;
            N_WGT = &PREFIX.WGT3;
            OUTPUT;

            ************************************************************************
            * 4 = Non-enrolled Beneficiaries
            ************************************************************************;
            MAJGRP = PUT(4,MAJGRPF.);
            SCORE = ADJ4;
            SEMEAN = SEMEAN4;
            N_OBS = &PREFIX.CNT4;
            N_WGT = &PREFIX.WGT4;
            OUTPUT;

            ************************************************************************
```

```
     * 5 = Active Duty
     ********************************************************************;
     MAJGRP = PUT(5,MAJGRPF.);
     SCORE = ADJ5;
     SEMEAN = SEMEAN5;
     N_OBS = &PREFIX.CNT5;
     N_WGT = &PREFIX.WGT5;
     OUTPUT;


     ********************************************************************
     * 6 = Active Duty Dependents
     ********************************************************************;
     MAJGRP = PUT(6,MAJGRPF.);
     SCORE = ADJ6;
     SEMEAN = SEMEAN6;
     N_OBS = &PREFIX.CNT6;
     N_WGT = &PREFIX.WGT6;
     OUTPUT;


     ********************************************************************
     * 7 = Retirees and Dependents
     ********************************************************************;
     MAJGRP = PUT(7,MAJGRPF.);
     SCORE = ADJ7;
     SEMEAN = SEMEAN7;
     N_OBS = &PREFIX.CNT7;
     N_WGT = &PREFIX.WGT7;
     OUTPUT;


     ********************************************************************
     * 8 = All Beneficiaries              ALL Beneficiaries
     ********************************************************************;
     MAJGRP = PUT(8,MAJGRPF.);
     SCORE  = ADJ8;
     SEMEAN = SEMEAN8;
     N_OBS = &PREFIX.CNT8;
     N_WGT = &PREFIX.WGT8;
     OUTPUT;

 KEEP MAJGRP
      REGION
      REGCAT
      BENTYPE
      BENEFIT
      TIMEPD   /*MJS 07/03/03 Added*/
      SCORE
      SEMEAN
      N_OBS
      N_WGT
      SIG
     ;
 RUN;

 %MEND;

 ***************************************************************************
 * COMPOSITE # 1.
 * GETTING NEEDED CARE VARIABLES.
 ***************************************************************************;
 %PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE );
 %PROCESS(QUESTION=R_R09029,TYPE=INDIVIDUAL);
 %PROCESS(QUESTION=R_R09033,TYPE=INDIVIDUAL);


 ***************************************************************************
 * COMPOSITE # 2.
 * GETTING CARE QUICKLY VARIABLES.
 ***************************************************************************;
 %PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE );
 %PROCESS(QUESTION=R_R09007,TYPE=INDIVIDUAL);
 %PROCESS(QUESTION=R_R09010,TYPE=INDIVIDUAL);


 ***************************************************************************
 * COMPOSITE # 3.
 * HOW WELL DOCTORS COMMUNICATE.
```

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```
************************************************************************;
%PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09021,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09022,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09023,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09024,TYPE=INDIVIDUAL);


***********************************************************************
* COMPOSITE # 4.
* CUSTOMER SERVICE.
************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09040,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09041,TYPE=INDIVIDUAL);


***********************************************************************
* COMPOSITE # 5.
* CLAIMS PROCESSING.
************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09045,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09046,TYPE=INDIVIDUAL);


***********************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R09018,TYPE=INDIVIDUAL);


***********************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R09047,TYPE=INDIVIDUAL);


***********************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R09027,TYPE=INDIVIDUAL);


***********************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
************************************************************************;
%PROCESS(QUESTION=R_R09031,TYPE=INDIVIDUAL);


***********************************************************************
***********************************************************************
* STACK up all of the files into one final output dataset.
***********************************************************************
***********************************************************************;
DATA OUT.LOADCAHQ;
   SET R_R09029
       R_R09033
       R_R09007
       R_R09010
       R_R09021
       R_R09022
       R_R09023
       R_R09024
       R_R09040
       R_R09041
       R_R09045
       R_R09046
       R_R09018
       R_R09047
       R_R09027
       R_R09031
       RCOMPOS1
       RCOMPOS2
       RCOMPOS3
       RCOMPOS4
       RCOMPOS5
```

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```
      ;
      IF SCORE = . THEN DELETE;
RUN;


TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: LOADCAHQ.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHQ.SAS7BDAT - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accommodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*           4) 04/03/2003 BY MIKE SCOTT, Added parameters for 2003 survey.
*           5) 07/08/2003 BY MIKE SCOTT, Added formats GETNCARE, GETCAREQ,
*              CRTSHELP, HOWWELL, CUSTSERV, CLMSPROC, and PREVCARE.
*           6) 03/22/2004 BY KEITH RATHBUN, Added parameters for 2004 survey.
*              Changed R04031 to be "Wait Less than 15 Minutes For Appointment".
*           7) 05/06/2004 BY MIKE SCOTT, Changed R04031 back to 2003 version of
*              the label ("Wait More than 15 Minutes Past Appointment") so that
*              the Q1 2004 version of the question is consistent with past
*              versions.  The label will be changed to the new version ("Waiting
*              in the Doctor's Office") in Makehtmq.sas.
*           8) 02/2006 BY REGINA GRAMSS, Changed date format to fielding dates.
*           9) 03/21/2006 BY KEITH RATHBUN, Added parameters for 2006 survey.
*           10) 08/22/2006 BY JUSTIN OH, Changed SERVREGF format for Overseas.
*           11) 12/15/2006 BY JUSTIN OH, Added parameters for 2007 survey.
*           12) 02/02/2007 BY JUSTIN OH, Added "s" in Healthy Behaviors in VALUE BEN.
*           13) 01/10/2008 BY KEITH RATHBUN, Added parameters for 2008 survey.
*           14) 01/09/2009 BY MIKE RUDACILLE, Added parameters for 2009 survey.
*           14) 01/16/2009 BY MIKE RUDACILLE, Changed CONUS to USA.
*           15) 04/11/2009 by Mike Rudacille - Changed formats to reflect
*              modifications to beneficiary reports necessary for V4
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
* NOTES:    1) Under the new contract (8860), the survey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*****************************************************************************
;
*****************************************************************************
* FORMAT Definitions
*****************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees            "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
      5 = "Active Duty                "
      6 = "Active Duty Dependents     "
      7 = "Retirees and Dependents    "
      8 = "All Beneficiaries          "
   ;
   VALUE XSERVAFF
      1 = "ARMY"
      2 = "AIR FORCE"
      3 = "NAVY"
      4 = "OTHER"
   ;
   VALUE REGIONF
      0 = "USA MHS "
```

```
            1 = "North"
            2 = "South"
            3 = "West"
            4 = "Overseas"
          ;

/*JSO 08/24/2006, Changed Overseas to Service for Europe,Pacific,Latin*/
    VALUE SERVREGF
         1 = "North Army"
         2 = "North Air Force"
         3 = "North Navy"
         4 = "North Other"
         5 = "South Army"
         6 = "South Air Force"
         7 = "South Navy"
         8 = "South Other"
         9 = "West Army"
        10 = "West Air Force"
        11 = "West Navy"
        12 = "West Other"
        13 = "Europe Army"
        14 = "Europe Air Force"
        15 = "Europe Navy"
        16 = "Europe Other"
        17 = "Pacific Army"
        18 = "Pacific Air Force"
        19 = "Pacific Navy"
        20 = "Pacific Other"
        21 = "Latin America Army"
        22 = "Latin America Air Force"
        23 = "Latin America Navy"
        24 = "Latin America Other"
        25 = "USA ARMY"
        26 = "USA AIR FORCE"
        27 = "USA NAVY"
        28 = "USA OTHER";

/*JSO 08/24/2006, Changed Overseas to Europe,Pacific,Latin*/
    VALUE SERVREGO
         1 = "North Army"
         2 = "North Air Force"
         3 = "North Navy"
         4 = "North Other"
         5 = "South Army"
         6 = "South Air Force"
         7 = "South Navy"
         8 = "South Other"
         9 = "West Army"
        10 = "West Air Force"
        11 = "West Navy"
        12 = "West Other"
        13 = "Overseas Europe"
        14 = "Overseas Pacific"
        15 = "Overseas Latin America";

    VALUE $BENTYPF
    "1998    " = "1998                                    "
    "1999    " = "1999                                    "
    "2000    " = "2000                                    "
    "2001    " = "2001                                    "
    "2002    " = "2002                                    "
    "2003    " = "2003                                    "
    "2004    " = "2004                                    "
    "2005    " = "2005                                    "
    "2006    " = "2006                                    "
    "2007    " = "2007                                    "
    "2008    " = "2008                                    "
    "2000 Q1 " = "January, 2000 to December, 2000         "
    "2000 Q2 " = "April, 2000 to March, 2001              "
    "2000 Q3 " = "July, 2000 to June, 2001                "
    "2000 Q4 " = "October, 2000 to September, 2001        "
    "2002 Q1 " = "January, 2001 to December, 2001         "
    "2002 Q2 " = "April, 2001 to March, 2002              "
    "2002 Q3 " = "July, 2001 to June, 2002                "
```

```
            "2002 Q4 " = "October, 2001 to September, 2002             "
            "2003 Q1 " = "January, 2002 to December, 2002             "
            "2003 Q2 " = "April, 2002 to March, 2003                  "
            "2003 Q3 " = "July, 2002 to June, 2003                    "
            "2003 Q4 " = "October, 2002 to September, 2003            "
            "2004 Q1 " = "January, 2003 to December, 2003             "
            "2004 Q2 " = "April, 2003 to March, 2004                  "
            "2004 Q3 " = "Quarter 3, CY 2004                          "
            "2004 Q4 " = "Quarter 4, CY 2004                          "
            "2005 Q1 " = "January, 2005                               "
            "2005 Q2 " = "April, 2005                                 "
            "2005 Q3 " = "July, 2005                                  "
            "2005 Q4 " = "October, 2005                               "
            "2006 Q1 " = "January, 2006                               "
            "2006 Q2 " = "April, 2006                                 "
            "2006 Q3 " = "July, 2006                                  "
            "2006 Q4 " = "October, 2006                               "
            "2007 Q1 " = "January, 2007                               "
            "2007 Q2 " = "April, 2007                                 "
            "2007 Q3 " = "July, 2007                                  "
            "2007 Q4 " = "October, 2007                               "
            "2008 Q1 " = "January, 2008                               "
            "2008 Q2 " = "April, 2008                                 "
            "2008 Q3 " = "July, 2008                                  "
            "2008 Q4 " = "October, 2008                               "
            "2009 Q1 " = "January, 2009                               "
            "2009 Q2 " = "April, 2009                                 "
            "2009 Q3 " = "July, 2009                                  "
            "2009 Q4 " = "October, 2009                               "

/*********************************************************************************************
/
        /*                        Admin.                    Year                        Defn.
*/
        /* 2001        2002        2003        2004      2005      2006      2007      2008
2009    */

/*********************************************************************************************
/
        "R00014  ", "R02016  ", "R03013  ", "R04013", "R05013", "R06013", "R07013", "R08013",
"R09029" = "Getting to See a Specialist        "
        "R00028  ", "R02030  ", "R03027  ", "R04028", "R05027", "R06027", "R07027", "R08027",
"R09033" = "Getting Treatment                  "
        "R00024  ", "R02026  ", "R03023  ", "R04020", "R05019", "R06019", "R07019", "R08019",
"R09007" = "Wait for Urgent Care               "
        "R00021  ", "R02023  ", "R03020  ", "R04023", "R05022", "R06022", "R07022", "R08022",
"R09010" = "Wait for Routine Visit             "
        "R00033  ", "R02035  ", "R03032  ", "R04034", "R05033", "R06033", "R07033", "R08033",
"R09021" = "Listens Carefully                  "
        "R00034  ", "R02036  ", "R03033  ", "R04035", "R05034", "R06034", "R07034", "R08034",
"R09022" = "Explains so You Can Understand      "
        "R00035  ", "R02037  ", "R03034  ", "R04036", "R05035", "R06035", "R07035", "R08035",
"R09023" = "Shows Respect                      "
        "R00036  ", "R02038  ", "R03035  ", "R04037", "R05036", "R06036", "R07036", "R08036",
"R09024" = "Spends Time with You               "
        "R00048  ", "R02048  ", "R03044  ", "R04045", "R05043", "R06043", "R07043", "R08043",
"R09040" = "Getting Information                "
        "R00050  ", "R02050  ", "R03046  ", "R04047", "R05045", "R06045", "R07045", "R08045",
"R09041" = "Courteous Customer Service         "
        "R00044  ", "R02044  ", "R03040  ", "R04041", "R05040", "R06040", "R07040", "R08040",
"R09045" = "Claims Handled in a Reasonable Time"
        "R00045  ", "R02045  ", "R03041  ", "R04042", "R05041", "R06041", "R07041", "R08041",
"R09046" = "Claims Handled Correctly           "
        "R00037  ", "R02039  ", "R03036  ", "R04038", "R05037", "R06037", "R07037", "R08037",
"R09018" = "Health Care                        "
        "R00056  ", "R02056  ", "R03052  ", "R04054", "R05048", "R06048", "R07048", "R08048",
"R09047" = "Health Plan                        "
        "R00009  ", "R02011  ", "R03011  ", "R04009", "R05009", "R06009", "R07009", "R08009",
"R09027" = "Primary Care Manager               "
        "R00016  ", "R02018  ", "R03015  ", "R04015", "R05015", "R06015", "R07015", "R08015",
"R09031" = "Specialty Care                     "
                              "PHYSIC  " = "Physical                                      "
                              "MENTAL  " = "Mental                                        "
        ;
```

```
      VALUE $BENEF
        "RCOMPOS1","CCOMPOS1","R00014","R00028",
                              "R02016","R02030",
                              "R03013","R03027",
                              "R04013","R04028",
                              "R05013","R05027",
                              "R06013","R06027",
                              "R07013","R07027",
                              "R08013","R08027",
                              "R09029","R09033"
        = "Getting Needed Care  "

        "RCOMPOS2","CCOMPOS2","R00024","R00021",
                              "R02026","R02023",
                              "R03023","R03020",
                              "R04020","R04023",
                              "R05019","R05022",
                              "R06019","R06022",
                              "R07019","R07022",
                              "R08019","R08022",
                              "R09007","R09010"
        = "Getting Care Quickly "

        "RCOMPOS3","CCOMPOS3","R00033","R00034","R00035","R00036",
                              "R02035","R02036","R02037","R02038",
                              "R03032","R03033","R03034","R03035",
                              "R04034","R04035","R04036","R04037",
                              "R05033","R05034","R05035","R05036",
                              "R06033","R06034","R06035","R06036",
                              "R07033","R07034","R07035","R07036",
                              "R08033","R08034","R08035","R08036",
                              "R09021","R09022","R09023","R09024"
        = "How Well Doctors Communicate "

        "RCOMPOS4","CCOMPOS4","R00048","R00050",
                              "R02048","R02050",
                              "R03044","R03046",
                              "R04045","R04047",
                              "R05043","R05045",
                              "R06043","R06045",
                              "R07043","R07045",
                              "R08043","R08045",
                              "R09040","R09041"
        = "Customer Service        "

        "RCOMPOS5","CCOMPOS5","R00044","R00045",
                              "R02044","R02045",
                              "R03040","R03041",
                              "R04041","R04042",
                              "R05040","R05041",
                              "R06040","R06041",
                              "R07040","R07041",
                              "R08040","R08041",
                              "R09045","R09046"
        = "Claims Processing
                 "
        "RCOMPOS11","COMPOS11","MENTAL","PHYS"
        = "Health Status                "

/******************************************************************************************/
      /*                          Admin.                          Year                          Defn.
*/
      /* 2001      2002      2003      2004      2005      2006      2007      2008      2009
*/

/******************************************************************************************/
      "R00037",  "R02039",  "R03036",  "R04038",  "R05037",  "R06037",  "R07037",  "R08037",
"R09018" = "Health Care                              "
      "R00056",  "R02056",  "R03052",  "R04054",  "R05048",  "R06048",  "R07048",  "R08048",
"R09047" = "Health Plan                              "
      "R00009",  "R02011",  "R03011",  "R04009",  "R05009",  "R06009",  "R07009",  "R08009",
"R09027" = "Primary Care Manager                     "
      "R00016",  "R02018",  "R03015",  "R04015",  "R05015",  "R06015",  "R07015",  "R08015",
"R09031" = "Specialty Care                           "
```

```
    ;
VALUE BEN
/*  0 = 'Total'   deleted no longer calculating total 04/2005 RSG ***/
  1 = 'Getting Needed Care'
  2 = 'Getting Care Quickly'
  3 = 'How Well Doctors Communicate'
  4 = 'Customer Service'
  5 = 'Claims Processing'
  6 = 'Health Plan'
  7 = 'Health Care'
  8 = 'Primary Care Manager'
  9 = 'Specialty Care'
 10 = 'Preventive Care'
 11 = 'Healthy Behaviors';

  VALUE MAJOR
  1 = "Prime Enrollees            "
  2 = "Enrollees with Military PCM"
  3 = "Enrollees with Civilian PCM"
  4 = "Non-enrolled Beneficiaries "
  5 = "Active Duty                "
  6 = "Active Duty Dependents     "
  7 = "Retirees and Dependents    "
  8 = "All Beneficiaries          ";

  VALUE GETNCARE
  1 = "Getting to See a Specialist"
  2 = "Getting Treatment"
  3 = "Composite";

  VALUE GETCAREQ
  1 = "Wait for Routine Visit"
  2 = "Wait for Urgent Care"
  3 = "Composite";

  VALUE HOWWELL
  1 = "Listens Carefully"
  2 = "Explains so You Can Understand"
  3 = "Shows Respect"
  4 = "Spends Time with You"
  5 = "Composite";

  VALUE CUSTSERV
  1 = "Getting Information"
  2 = "Courteous Customer Service"
  3 = "Composite";

  VALUE CLMSPROC
  1 = "Claims Handled in a Reasonable Time"
  2 = "Claims Handled Correctly"
  3 = "Composite";

  VALUE PREVCARE
  1 = "Mammography"
  2 = "Pap Smear"
  3 = "Hypertension"
  4 = "Prenatal Care"
  5 = "Composite";

  VALUE SMOKEF
  1 = "Non-Smoking Rate"
  2 = "Counselled To Quit"
  3 = "Percent Not Obese"
  4 = "Composite";
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  BENCHA01.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Extract Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUTS:   1) AC2006DB.SD2 - 2006 Adult CAHPS Questions
*
* OUTPUT:   1) BENCHA01.SD2 - 2006 Adult CAHPS Questions Renamed to be
*              consistent with the 2006 MPR DOD Survey.
*
* MODIFIED: 1) 12/19/2000 BY KEITH RATHBUN for Q1 2000 Survey.
*           2) 04/11/2002 BY MIKE SCOTT, Updated variable names for 2002
*              Survey.
*           3) 07/30/2002 BY MIKE SCOTT, Updated to use 2001 NCBD.
*           4) 03/21/2003 BY MIKE SCOTT, Updated for 2003 survey.
*           5) 05/06/2003 BY MIKE SCOTT, Updated for 2002 benchmarks.
*           6) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
*           7) 04/16/2004 BY KEITH RATHBUN, Updated to use 2003 NCBD.
*           8) 05/17/2005 BY REGINA GRAMSS, Updated for Q1 2005.
*           9) 03/24/2006 BY KEITH RATHBUN, Updated for Q2 FY 2006.
*              Changed variable names to match the 2006 HCSDB survey.
*              Changed CAHPS variable names to match those in 2005 NCBD.
*          10) 02/21/2007 BY JUSTIN OH, Updated for Q1 FY 2007.
*              Changed variable names to match the 2006 HCSDB survey.
*              Changed CAHPS variable names to match those in 2006 NCBD.
*              Changed SREDHIGH varible AC60_05 to AC58_06
*          11) 01/10/2008 BY KEITH RATHBUN, Updated for Q1 FY 2008.
*              Changed variable names to match the 2008 HCSDB survey.
*          12) 01/05/2009 BY MIKE RUDACILLE, Updated for Q1 FY 2009.
*              Changed variable names to match the 2009 HCSDB survey.
*
* NOTES:
*
* 1) This program will generate the input for BENCHA02.SAS.
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;
LIBNAME IN  V612 "..\..\..\2006AdultChildNCBD\AC";
LIBNAME OUT     "data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA01;
   SET IN.AC2006DB (RENAME=(BIRTHYY=YOB));
   FORMAT _ALL_;
   ****************************************
   * Getting Needed Care
   ****************************************;
   H09028A  = AC25_06;
   H09011A  = AC07_06;
   H09013A  = AC09_06;
   H09027A  = AC24_06;
   H09029A  = AC26_06;
   ****************************************
   * Getting Care Quickly
   ****************************************;
   H09017A  = AC14_06;
   H09022A  = AC19_06;
   H09019A  = AC16_06;
   H09030A  = AC27_06;
   ****************************************
   * How Well Doctors Communicate
   ****************************************;
   H09033A  = AC30_06;
   H09034A  = AC31_06;
   H09035A  = AC32_06;
   H09036A  = AC33_06;
```

```
********************************************
* Courteous and Helpful Office Staff
********************************************;
H09031A   = AC28_06;
H09032A   = AC29_06;
********************************************
* Customer Service
********************************************;
H09043A   = AC40_06;
H09045A   = AC42_06;
H09047A   = AC48_06;
********************************************
* Claims Processing
********************************************;
H09040A   = AC36_06;
H09041A   = AC37_06;
********************************************
* Health Care Rating
********************************************;
H09037A   = AC34_06;
********************************************
* Health Plan Rating
********************************************;
H09048A   = AC49_06;
********************************************
* Personal Doctor Rating
********************************************;
H09009A   = AC05_06;
********************************************
* Specialist Rating
********************************************;
H09015A   = AC11_06;
********************************************
* Health Status
********************************************;
H09063    = AC50_06;
H09008A   = AC04_06;
AGEGROUP = AGE;    *NEED TO USE USE THIS DIRECTLY (already grouped);
XSEXA    = GENDER;
SREDHIGH = AC58_06;                              /*JSO 02/21/06 chged AC60_05 to AC58_06 */
SRRACEA=AC60A_06;
SRRACEB=AC60B_06;
SRRACEC=AC60C_06;
SRRACED=AC60D_06;
SRRACEE=AC60E_06;
H09071=AC59_06;
if product in (7,9) then model=4;               /*MJS 05/06/03 product now numeric*/
if product=3 then model=2;                       /*coded according to AC FORMATS.SAS*/
if product=1 then model=1;
if product=4 then model=6;
if product=8 then model=5;
if product=2 then model=3;
nproduct=planid+0;                               /*MJS 05/06/03 was plnid now planid*/

LABEL  H09011A    = "AC07_06 - CAHPS variable"
       H09013A    = "AC09_06 - CAHPS variable"
       H09027A    = "AC24_06 - CAHPS variable"
       H09028A    = "AC25_06 - CAHPS variable"
       H09029A    = "AC26_06 - CAHPS variable"
       H09017A    = "AC14_06 - CAHPS variable"
       H09022A    = "AC19_06 - CAHPS variable"
       H09019A    = "AC16_06 - CAHPS variable"
       H09030A    = "AC27_06 - CAHPS variable"
       H09033A    = "AC30_06 - CAHPS variable"
       H09034A    = "AC31_06 - CAHPS variable"
       H09035A    = "AC32_06 - CAHPS variable"
       H09036A    = "AC33_06 - CAHPS variable"
       H09031A    = "AC28_06 - CAHPS variable"
       H09032A    = "AC29_06 - CAHPS variable"
       H09043A    = "AC40_06 - CAHPS variable"
       H09045A    = "AC42_06 - CAHPS variable"
       H09047A    = "AC48_06 - CAHPS variable"
       H09040A    = "AC36_06 - CAHPS variable"
       H09041A    = "AC37_06 - CAHPS variable"
```

```
       H09037A    = "AC34_06 - CAHPS variable"
       H09048A    = "AC49_06 - CAHPS variable"
       H09009A    = "AC05_06 - CAHPS variable"
       H09015A    = "AC11_06 - CAHPS variable"
       H09066     = "AC50_06 - CAHPS variable"
       H09008A    = "AC04_06 - CAHPS variable"
       AGEGROUP   = "AGE - CAHPS variable"
       XSEXA      = "GENDER - CAHPS variable"
       SREDHIGH = "AC58_06 - CAHPS variable"   /*JSO 02/21/06 chged AC60_05 to AC58_06 */
       ;
 KEEP    H09011A
         H09013A
         H09027A
         H09028A
         H09029A
         H09017A
         H09022A
         H09019A
         H09030A
         H09033A
         H09034A
         H09035A
         H09036A
         H09031A
         H09032A
         H09043A
         H09045A
         H09047A
         H09040A
         H09041A
         H09037A
         H09048A
         H09009A
         H09015A
         H09063
         H09008A
         AGEGROUP
         XSEXA
         SREDHIGH
         MODEL
         NPRODUCT
         AC03_0
         DISP
         YOB
         SRRACEA--SRRACEE
         H09071;
       ;
 RUN;

 TITLE1 "Extract Adult CAHPS Questions (DoD)";
 TITLE2 "Program Name: BENCHA01.SAS By Keith Rathbun";
 TITLE3 "Program Input: AC2006DB.sd2";
 TITLE4 "Program Output: BENCHA01.sas7bdat";

 PROC CONTENTS; RUN;

 PROC FREQ;
 TABLES _ALL_ /MISSING LIST;
 RUN;
```

```
   ****************************************************************************
   *
   * PROGRAM:  BENCHA02.SAS
   * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
   * PURPOSE:  Recode Adult CAHPS Questions
   *
   * WRITTEN:  06/02/2000 BY KEITH RATHBUN
   *
   * INPUT:     1) BENCHA01.SD2 - Adult CAHPS Questions Renamed to be
   *               consistent with the MPR DOD Survey.
   *
   * OUTPUT:    1) BENCHA02.SD2 - Recoded Adult CAHPS Questions Renamed
   *               to be consistent with the MPR DOD Survey.
   *
   * MODIFIED: 1) 12/19/2000 BY KEITH RATHBUN for Q1 2000 Survey.
   *           2) 04/11/2002 BY MIKE SCOTT, Updated variable names for 2002
   *              Survey.
   *           3) 07/30/2002 BY MIKE SCOTT, Updated to use 2001 NCBD.
   *           4) 03/21/2003 BY MIKE SCOTT, Updated for 2003 survey.
   *           5) 05/06/2003 BY MIKE SCOTT, Changed labels from _01 to _02.
   *           6) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
   *           7) April 2004 By Keith Rathbun, Removed reverse coding for
   *              H04031.  2004 survey question wording is 'Within 15 minutes'
   *              instead of "More than 15 Minutes".  Updated CAHPS variable
   *              labels to be consistent with 2003 NCBD.
   *           8) 06/2005 By Regina Gramss, Updated codes with 2005 variable
   *              names/labels.
   *           9) 03/24/2006 BY KEITH RATHBUN, Updated for 2006 survey.
   *              Changed CAHPS variable names to match those in 2005 NCBD.
   *          10) 01/10/2008 BY KEITH RATHBUN, Updated for 2008 survey.
   *          11) 01/05/2009 BY MIKE RUDACILLE, Updated for 2009 survey.
   *
   * NOTES:
   *
   * 1) Run this program after BENCHA01.SAS.
   * 2) This program will generate the input for BENCHA03.SAS.
   *
   ****************************************************************************
   * Assign data libraries and options
   ****************************************************************************;
   LIBNAME IN       "data";
   LIBNAME OUT      "data";
   OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

   DATA OUT.BENCHA02(rename=(nproduct=product));
     SET IN.BENCHA01;

     *************************************************************************
     * Recode variables with Never, Sometimes, Usually and Always.
     * Recode Never & Sometimes (1 & 2) to 1.
     * Recode Usually (3) to 2.
     * Recode Always (4) to 3.
     *************************************************************************;
     IF H09028A = 2     THEN H09029A=3;     /* ES 4/28/04  Change in scoring logic */

     IF H09022A = 1     THEN R09022 = 1;   /* MJS 03/23/04 Changed 2003 to 2004 variables
names */
        ELSE IF H09022A = 2 THEN R09022 = 1;
        ELSE IF H09022A = 3 THEN R09022 = 2;
        ELSE IF H09022A = 4 THEN R09022 = 3;
        ELSE IF H09022A < 0 THEN R09022 = .;

     IF H09017A = 1     THEN R09017 = 1;
        ELSE IF H09017A = 2 THEN R09017 = 1;
        ELSE IF H09017A = 3 THEN R09017 = 2;
        ELSE IF H09017A = 4 THEN R09017 = 3;
        ELSE IF H09017A < 0 THEN R09017 = .;

     IF H09019A = 1     THEN R09019 = 1;
        ELSE IF H09019A = 2 THEN R09019 = 1;
```

```
ELSE IF H09019A = 3 THEN R09019 = 2;
ELSE IF H09019A = 4 THEN R09019 = 3;
ELSE IF H09019A < 0 THEN R09019 = .;

IF H09030A = 1      THEN R09030 = 1;
ELSE IF H09030A = 2 THEN R09030 = 1;
ELSE IF H09030A = 3 THEN R09030 = 2;
ELSE IF H09030A = 4 THEN R09030 = 3;
ELSE IF H09030A < 0 THEN R09030 = .;

IF H09031A = 1      THEN R09031 = 1;
ELSE IF H09031A = 2 THEN R09031 = 1;
ELSE IF H09031A = 3 THEN R09031 = 2;
ELSE IF H09031A = 4 THEN R09031 = 3;
ELSE IF H09031A < 0 THEN R09031 = .;

IF H09032A = 1      THEN R09032 = 1;
ELSE IF H09032A = 2 THEN R09032 = 1;
ELSE IF H09032A = 3 THEN R09032 = 2;
ELSE IF H09032A = 4 THEN R09032 = 3;
ELSE IF H09032A < 0 THEN R09032 = .;

IF H09033A = 1      THEN R09033 = 1;
ELSE IF H09033A = 2 THEN R09033 = 1;
ELSE IF H09033A = 3 THEN R09033 = 2;
ELSE IF H09033A = 4 THEN R09033 = 3;
ELSE IF H09033A < 0 THEN R09033 = .;

IF H09034A = 1      THEN R09034 = 1;
ELSE IF H09034A = 2 THEN R09034 = 1;
ELSE IF H09034A = 3 THEN R09034 = 2;
ELSE IF H09034A = 4 THEN R09034 = 3;
ELSE IF H09034A < 0 THEN R09034 = .;

IF H09035A = 1      THEN R09035 = 1;
ELSE IF H09035A = 2 THEN R09035 = 1;
ELSE IF H09035A = 3 THEN R09035 = 2;
ELSE IF H09035A = 4 THEN R09035 = 3;
ELSE IF H09035A < 0 THEN R09035 = .;

IF H09036A = 1      THEN R09036 = 1;
ELSE IF H09036A = 2 THEN R09036 = 1;
ELSE IF H09036A = 3 THEN R09036 = 2;
ELSE IF H09036A = 4 THEN R09036 = 3;
ELSE IF H09036A < 0 THEN R09036 = .;

IF H09040A = 1      THEN R09040 = 1;
ELSE IF H09040A = 2 THEN R09040 = 1;
ELSE IF H09040A = 3 THEN R09040 = 2;
ELSE IF H09040A = 4 THEN R09040 = 3;
ELSE IF H09040A < 0 THEN R09040 = .;

IF H09041A = 1      THEN R09041 = 1;
ELSE IF H09041A = 2 THEN R09041 = 1;
ELSE IF H09041A = 3 THEN R09041 = 2;
ELSE IF H09041A = 4 THEN R09041 = 3;
ELSE IF H09041A < 0 THEN R09041 = .;

IF H09063 = 1          THEN R09063 = 5;
ELSE IF H09063 = 2     THEN R09063 = 4;
ELSE IF H09063 = 3     THEN R09063 = 3;
ELSE IF H09063 = 4     THEN R09063 = 2;
ELSE IF H09063 = 5     THEN R09063 = 1;
ELSE IF H09063>5|H09063<1 THEN R09063 = .;

*************************************************************************
* Recode variables to one missing condition ".".
* This also makes all the "H000xx" to "R000xx".
*************************************************************************;
R09011 = H09011A;  IF R09011 < 0 THEN R09011 = .;
R09009 = H09009A;  IF R09009 < 0|R09009>10 THEN R09009 = .;
R09013 = H09013A;  IF R09013 < 0 THEN R09013 = .;
R09015 = H09015A;  IF R09015 < 0|R09015>10 THEN R09015 = .;
R09027 = H09027A;  IF R09027 < 0 THEN R09027 = .;
```

```
     R09029 = H09029A;  IF R09029 < 0 THEN R09029 = .;
     R09037 = H09037A;  IF R09037 < 0|R09037>10 THEN R09037 = .;
     R09043 = H09043A;  IF R09043 < 0 THEN R09043 = .;
     R09045 = H09045A;  IF R09045 < 0 THEN R09045 = .;
     R09047 = H09047A;  IF R09047 < 0 THEN R09047 = .;
     R09048 = H09048A;  IF R09048 < 0|R09048>10 THEN R09048 = .;
     R09071 = H09071; IF R09071<0 THEN R09071 = .;

     LABEL R09011  = "AC07_06 - Recoded CAHPS variable"
           R09009  = "AC05_06 - Recoded CAHPS variable"
           R09013  = "AC09_06 - Recoded CAHPS variable"
           R09015  = "AC11_06 - Recoded CAHPS variable"
           R09017  = "AC14_06 - Recoded CAHPS variable"
           R09022  = "AC19_06 - Recoded CAHPS variable"
           R09019  = "AC16_06 - Recoded CAHPS variable"
           R09027  = "AC24_06 - Recoded CAHPS variable"
           R09029  = "AC26_06 - Recoded CAHPS variable"
           R09030  = "AC27_06 - Recoded CAHPS variable"
           R09031  = "AC28_06 - Recoded CAHPS variable"
           R09032  = "AC29_06 - Recoded CAHPS variable"
           R09033  = "AC30_06 - Recoded CAHPS variable"
           R09034  = "AC31_06 - Recoded CAHPS variable"
           R09035  = "AC32_06 - Recoded CAHPS variable"
           R09036  = "AC33_06 - Recoded CAHPS variable"
           R09037  = "AC34_06 - Recoded CAHPS variable"
           R09043  = "AC40_06 - Recoded CAHPS variable"
           R09045  = "AC42_06 - Recoded CAHPS variable"
           R09047  = "AC48_06 - Recoded CAHPS variable"
           R09048  = "AC49_06 - Recoded CAHPS variable"
           R09063  = "AC50_06 - Recoded CAHPS variable"
           R09040  = "AC36_06 - Recoded CAHPS variable"
           R09041  = "AC37_06 - Recoded CAHPS variable"

           nPRODUCT  = "Product ID - CAHPS variable";
         ;
         drop product;
RUN;

TITLE1 "Recode Adult CAHPS Questions (6244-410)";
TITLE2 "Program Name: BENCHA02.SAS By Keith Rathbun";
TITLE3 "Program Input: BENCHA01.SAS7BDAT";
TITLE4 "Program Output: BENCHA02.SAS7BDAT";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES  AGEGROUP
        XSEXA
        SREDHIGH
        MODEL
        R09011 * H09011A
        R09009 * H09009A
        R09013 * H09013A
        R09015 * H09015A
        R09017 * H09017A
        R09022 * H09022A
        R09019 * H09019A
        R09027 * H09027A
        R09029 * H09029A
        R09030 * H09030A
        R09031 * H09031A
        R09032 * H09032A
        R09033 * H09033A
        R09034 * H09034A
        R09035 * H09035A
        R09036 * H09036A
        R09037 * H09037A
        R09043 * H09043A
        R09045 * H09045A
        R09047 * H09047A
        R09048 * H09048A
        R09063 * H09063
        R09040 * H09040A
        R09041 * H09041A
```

```
    /MISSING LIST;
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Adjust Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:    1) BENCHA02.SD2 - 2005 Adult CAHPS Questions Renamed to be
*               consistent with the 2006 MPR DOD Survey.
*            2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED: 1) Nov 2000 BY ERIC SCHONE - Output permanent datasets with
*               scores and standard errors and process the rest of the
*               composites and ratings.
*            2) Dec 2000 BY KEITH RATHBUN - Update variable names for
*               Q1 2000 Survey.
*            3) Jan 2002 BY KEITH RATHBUN - Updated to run under SAS
*               version 8 (changed INTERCEP to INTERCEPT).
*            4) Apr 2002 BY MIKE SCOTT - Updated variable names for Q1
*               2002 Survey.
*            5) Jul 2002 BY MIKE SCOTT - Changed R00077 to R04075, since
*               H02077 (health status) is back and was renamed to R04075
*               in HSC022_1.sd2.
*            6) Mar 2003 BY MIKE SCOTT - Updated for 2003 survey.
*            7) May 2003 BY MIKE SCOTT - Changed ac03_01 to ac03_02.
*            8) Jun 2003 BY MIKE SCOTT - Updated for Q2 2003.
*            9) Oct 2003 BY MIKE SCOTT - Updated for Q3 2003.
*           10) Mar 2004 BY MIKE SCOTT - Updated for Q1 2004.
*           11) April 2004 BY KEITH RATHBUN - Updated to use the CAHPS 2003
*               variable ac03_03.
*           12) June 2004 BY REGINA GRAMSS - Updated to use for Q2 2004
*           13) Sept 2004 BY REGINA GRAMSS - Update for Q3 2004
*           14) May 2005 BY REGINA GRAMSS - Updated for Q1 2005
*           15) Jul 2005 BY REGINA GRAMSS - Updated for Q2 2005
*           16) Oct 2005 BY REGINA GRAMSS - Updated for Q3 2005
*           17) Dec 2005 BY REGINA GRAMSS - Updated for Q4 2005
*           18) 03/24/2006 BY KEITH RATHBUN, Updated for Q2 FY 2006.
*               Changed variable names to match the 2006 HCSDB survey.
*           19) 07/12/2006 by Justin Oh - Updated for Q3 FY 2006.
*           20) 10/03/2006 by Justin Oh - Changed libname in2 for Q4FY2006.
*               Change the INCLUDE path to CONVERT.sas file.
*           21) 12/18/2006 by Justin Oh - Changed libname in2 for Q1FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           22) 04/05/2007 by Justin Oh - Changed libname in2 for Q2FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           23) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
*               ReportCards OR PurchasedReportCards.
*           24) 04/05/2007 by Keith Rathbun - Changed libname in2 for Q3FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           25) 09/04/2007 by Justin Oh - Changed libname in2 for Q4FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           26) 01/10/2008 BY KEITH RATHBUN, Updated for Q1 FY 2008.
*               Changed variable names to match the 2008 HCSDB survey.
*           27) 04/11/2008 by Justin Oh - Changed libname in2 for Q2FY2008.
*               Change the INCLUDE path to CONVERT.sas file.
*           28) 06/13/2008 by Keith Rathbun - Changed libname in2 for Q3FY2008.
*               Change the INCLUDE path to CONVERT.sas file.
*           29) April 10, 2009 by Mike Rudacille, changed variable names to reflect
*               modifications to beneficiary reports necessary for V4
*           30) Sept 30, 2009 by Mike Rudacille - Changed libname in2 for Q4FY2009.
*               Change the INCLUDE path to CONVERT.sas file.
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
```

```
      **************************************************************************
      * Assign data libraries and options
      **************************************************************************;

      /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
      %LET RCTYPE = ReportCards;

      *libname in       "..\..\..\Q2FY2009\Programs\Benchmark\Data"; /*Use BENCHA02.sas7bdat from
Q2fy2009*/
      libname in        "..\..\..\Q2FY2009\Programs\BenchmarkV4\Data";
      libname in2       "..\&RCTYPE\CAHPS_AdultQ4FY2009\Data";
      libname out       "Data";
      LIBNAME LIBRARY "..\..\DATA\AFINAL\FMTLIB";

      %let wgt=FWRWT;

      OPTIONS MLOGIC MPRINT NOCENTER MERGENOBY=WARN LS=132 PS=79;


      %macro comb(f,t,q,l);

      proc summary data=&f;
       var &t;
       where &q~=.;
       weight &wgt;
       output out=temp mean=&t;
      run;

      data temp;
       set temp;
       array old &t;
       call symput('z',left(dim(old)));
      run;

      data temp(drop=_type_ &t);
       set temp;
       array old &t;
       array new var1-var&z;
        do i=1 to &z;
         new(i)=old(i);
        end;
      run;

      data &q._&l;
       merge temp c_&q;
       array coeffs &t;
       array means var1-var&z;
        DO I = 1 TO DIM(COEFFS);
          IF COEFFS(I) = . THEN COEFFS(I) = 0;
          IF MEANS(I) = . THEN MEANS(I) = 0;
          ADJUST + ( COEFFS(I) * MEANS(I) );
         END;

       ADJUST = ADJUST + intercept;
       &q._&l=adjust;

      run;

      %mend comb;

      %macro adjust(x,y);



      proc summary data=setup;
      where &x>.;
       class product;

       output out=count;
      run;

      data count count2(rename=(_freq_=denom));
       set count;
       if _type_=0 then output count2;
```

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```
 else output count;
run;

data count(keep=pweight product);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by product;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;

proc sort data=r_&x; by product;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST product / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;
```

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```
     %mend adjust;

     /* adjust all the variables */

     %macro comp(compno,a,b,c,d);
      %if &a~= %then %do;
       %let n=r_&a;
       %let m=s_&a;
       %do i=1 %to 8;
        %let p&i=&a._&i;
       %end;
       %let grpnum=1;
        proc sort data=r_&a;
         by mpid;
        run;
      %end;
      %if &b~= %then %do;
       %let n=%str(&n r_&b);
       %let m=%str(&m s_&b);
       %do i=1 %to 8;
        %let p&i=%str(&&p&i &b._&i);
       %end;
       %let grpnum=2;
        proc sort data=r_&b;
         by mpid;
        run;
      %end;
      %if &c~= %then %do;
       proc sort data=r_&c;
        by mpid;
       run;
       %let grpnum=3;
       %let n=%str(&n r_&c);
       %do i=1 %to 8;
        %let p&i=%str(&&p&i &c._&i);
       %end;
       %let m=%str(&m s_&c); %end;

       %if &d~= %then %do;
        proc sort data=r_&d;
         by mpid;
        run;
        %let grpnum=4;
        %let n=%str(&n r_&d);
         %do i=1 %to 8;
          %let p&i=%str(&&p&i &d._&i);
         %end;

         %let m=%str(&m s_&d);
       %end;

     data infile;
      merge &n;
      by mpid;
     run;

     proc corr outp=outf noprint;
      var &n;
      weight pweight;
     run;

     data final;
      if _n_=1 then do;
       %if &a~= %then %do;
        set s_&a;
       %end;
       %if &b~= %then %do;
        set s_&b;
       %end;
       %if &c~= %then %do;
        set s_&c;
       %end;
       %if &d~= %then %do;
```

```
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
   %do i=1 %to &grpnum;
    if _name_="r_&&s&i" then
    sde=sde+r_val(i)*s_&&s&i*s_val(i);
   %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
  merge &&p&i;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;

data out&compno._&i;
 merge output temp;
run;

data out.comp&compno._&i;
   merge out&compno._&i
         sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by product;
run;
data setup;
set setup;
if ^(model in (2,4));
if disp in ('M10','I10')  ;   ***KRR 04/19/04 Changed _02 to _03;
data setup;
 set setup; by product;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;
```

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```
     if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
 if agegroup<6;
run;
%INCLUDE "..\REPORTCARDS\CAHPS_AdultQ4FY2009\CONVERT.SAS";

%CONT2(DSN=SETUP, NUM=4,  Y=R09018 R09047 R09027 R09031);
%CONT3(DSN=SETUP, NUM=12, Y=R09007 R09010 R09029 R09033
                             R09021 R09022 R09023 R09024
                             R09040 R09041 R09045 R09046);
/* GETTING NEEDED CARE */
%adjust(R09029,age1824 age2534 age3544 age4554  R09063);
%adjust(R09033,age1824 age2534 age3544 age4554  R09063);
%comp(1,R09029,R09033);

/* GETTING NEEDED CARE QUICKLY */
%adjust(R09007,age1824 age2534 age3544 age4554  R09063);
%adjust(R09010,age1824 age2534 age3544 age4554  R09063);
%comp(2,R09007,R09010);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(R09021,age1824 age2534 age3544 age4554  R09063);
%adjust(R09022,age1824 age2534 age3544 age4554  R09063);
%adjust(R09023,age1824 age2534 age3544 age4554  R09063);
%adjust(R09024,age1824 age2534 age3544 age4554  R09063);
%comp(3,R09021,R09022,R09023,R09024);

/* CUSTOMER SERVICE */
%adjust(R09040,age1824 age2534 age3544 age4554  R09063);
%adjust(R09041,age1824 age2534 age3544 age4554  R09063);
%comp(4,R09040,R09041);

/* CLAIMS PROCESSING */
%adjust(R09045,age1824 age2534 age3544 age4554  R09063);
%adjust(R09046,age1824 age2534 age3544 age4554  R09063);
%comp(5,R09045,R09046);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(R09018,age1824 age2534 age3544 age4554  R09063);
%comp(6,R09018);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(R09047,age1824 age2534 age3544 age4554  R09063);
%comp(7,R09047);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(R09027,age1824 age2534 age3544 age4554  R09063);
%comp(8,R09027);

/* SPECIALTY CARE */
%adjust(R09031,age1824 age2534 age3544 age4554  R09063);
%comp(9,R09031);
```

G.3.D.1 Q4FY2009\PROGRAMS\BENCHMARK\QPREDTEST\SAS2STATA_GRPS.SAS - CONVERTS THE GROUPS
          DATASETS FROM SAS TO STATA - RUN QUARTERLY.

```
        *****************************************************************************
        *
        * PROGRAM:  SAS2STATA_Grps.SAS
        * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
        * PURPOSE:  Convert the CAHPS BENCHA02 and GROUP1-8 Files to STATA format
        *
        * WRITTEN:  01/11/2008 BY KEITH RATHBUN
        *
        * INPUTS:   1) BENCHA02.sas7bdat - CAHPS Benchmark Scores Database
        *              GROUPi.sas7bdat - Group Files created by STEP1.SAS
        *                          (where i = 1 -8 = group number)
        *
        * OUTPUTS:  1) BENCHA02.dta - CAHPS Benchmark Scores Database - STATA format
        *              GROUPi.dta - Group Files created by STEP1.SAS - STATA format
        *                          (where i = 1 -8 = group number)
        *
        * MODIFIED:
        *
        * NOTES:
        *
        *****************************************************************************
        * Assign data libraries and options
        ****************************************************************************;
        %LET QUARTER = Q4FY2009;
        *LIBNAME  INBENCH  "..\..\..\..\Q2FY2009\Programs\Benchmark\Data";  /*Use  BENCHA02.sas7bdat
from Q2fy2009*/
        LIBNAME INBENCH "..\..\..\..\Q2FY2009\Programs\BenchmarkV4\Data";
        LIBNAME INGROUP "..\..\ReportCards\cahps_adult&QUARTER.\data";

        *****************************************************************************
        * Convert CAHPS BENCHA02 to STATA format.
        ****************************************************************************;
        PROC EXPORT
           DATA = INBENCH.BENCHA02
           OUTFILE = "BENCHA02.DTA"
           DBMS = DTA
           REPLACE;
        RUN;

        *****************************************************************************
        * Convert SAS Group files to STATA format.
        ****************************************************************************;
        %MACRO CONVERT2STATA;
           %DO I = 1 %TO 8;
               PROC EXPORT
                   DATA = INGROUP.GROUP&I
                   OUTFILE = "GROUP&I..DTA"
                   DBMS = DTA
                   REPLACE;
               RUN;
           %END;
        %MEND CONVERT2STATA;

        %CONVERT2STATA;
```

```
/*
   Program: vartest.do
   Author:  Eric Schone
   Modified: 1) 11/15/2006 Justin Oh, Added global variable "path"
                for assigning folder directory.
             2) 06/22/2009 Keith Rathbun, Changed fwrwt_v4 back to fwrwt
                and updated path for q3fy2009.

   WARNING - MUST EDIT THE GLOBAL PATH FOR EACH REPORTING PERIOD
*/


global path "L:\Q4FY2009\Programs\Benchmark"


program define initial
version 7.0

local i=1
while `i'<9{

gen str8 var=" "
gen se=.
save "$path\qpredtest\projerr`i'",replace
clear
 local i=`i'+1
}
end
program define stdlist1
version 7.0
local varlist required existing
parse "`*'"
while "`1'"~=""{

use "$path\qpredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1       if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=10  if 8<=`1' & `1'<=10
replace `1'=0 if `1'~=. & `1'<8
replace `1'=`1'/10
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
keep if ct>1
```

```
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063

local i=1
while `i'<9{
use "$path\qpredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=fwrwt]
predict se, stdp
keep se
gen str8 var="`1'"
append using "$path\qpredtest\projerr`i'"
save "$path\qpredtest\projerr`i'",replace
local i=`i'+1
}
macro shift
}
end
program define stdlist2
version 7.0
local varlist required existing
parse "`*'"

while "`1'"~=""{

use "$path\qpredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=0 if `1'~=. & `1'<3
replace `1'=1 if `1'>=2
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063
local i=1
while `i'<9{
use "$path\qpredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=fwrwt]
predict se, stdp
keep se
gen str8 var="`1'"
append using "$path\qpredtest\projerr`i'"
save "$path\qpredtest\projerr`i'",replace
```

```
        local i=`i'+1
        }
        macro shift
        }
        end


        set more 1

        set mem 100m

        log using "$path\qpredtest\varlog",replace
        initial

        use "$path\qpredtest\bencha02",clear
        stdlist1 r09018 r09047 r09027 r09031
        use "$path\qpredtest\bencha02",clear
        stdlist2 r09029 r09033 r09040 r09041 r09007 r09010 r09021 r09022 r09023 r09024 r09045
r09046

        log close
```

G.3.D.3   Q4FY2009\PROGRAMS\BENCHMARK\QPREDTEST\STATA2SAS_PROJ.SAS - CONVERTS THE PREDICTED ERRORS FROM STATA TO SAS - RUN QUARTERLY.

```
*****************************************************************************
*
* PROGRAM:  STATA2SAS_Proj.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the PROJERR1-8 Files to SAS format
*
* WRITTEN:  01/11/2008 BY KEITH RATHBUN
*
* INPUTS:   1) PROJERRi.DTA - PROJERR Files created by VARTEST.DO
*                             (where i = 1 -8 = group number)
*
* OUTPUTS:  1) PROJERRi.sas7bdat - PROJERR Files created by VARTEST.DO - SAS format
*                             (where i = 1 -8 = group number)
*
* MODIFIED:
*
* NOTES:
*
*****************************************************************************
* Assign data libraries and options
****************************************************************************;
LIBNAME OUT ".";

*****************************************************************************
* Convert the PROJERR1-8 Files to SAS format
****************************************************************************;
%MACRO CONVERT2SAS;
   %DO I = 1 %TO 8;
       PROC IMPORT
           DATAFILE="projerr&i..dta"
           OUT=OUT.projerr&i
           DBMS=dta
           REPLACE;
       RUN;
   %END;
%MEND CONVERT2SAS;

%CONVERT2SAS;
```

```
/********************************************************************
/*
/*  Project:  HCSDB Adult Report Cards
/*  Program:  PREDCOMP.SAS
/*  Purpose:  Adult Report Card
/*  Requires programs STEP1Q and STEP2Q.SAS
/*
/********************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=NO;
libname in  ".";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,VAR5=,QCOUNT=);
 %do i=1 %to 8;
  data temp&i(keep=x se);
        set in.projerr&i end=last;
        variance=se**2;
        %do j=1 %to &qcount;
         if upcase(var)="&&var&j" then t_var+variance;
        %end;
        if last then do;
         se=t_var**.5/&qcount;
         x=&i;
          output;
        end;
  %end;
  data in.comp&compos;
    set temp1 temp2 temp3 temp4 temp5 temp6 temp7 temp8;
  run;



 %MEND COMPOSIT;

 *-------------------------------------;
 *-       set the parameters here     -;
 *-------------------------------------;
 ***********************************;
 *  call the macro for each composite;
 ***********************************;
 %COMPOSIT (type=R,compos=1,var1=R09029,var2=R09033,qcount=2);
 %COMPOSIT (type=R,compos=2,var1=R09007,var2=R09010,qcount=2);
 %COMPOSIT (type=R,compos=3,var1=R09021,var2=R09022,var3=R09023,var4=R09024,qcount=4);
 %COMPOSIT (type=R,compos=4,var1=R09040,var2=R09041,qcount=2);
 %COMPOSIT (type=R,compos=5,var1=R09045,var2=R09046,qcount=2);
```

```
    *****************************************************************************
    *
    * PROGRAM:  BENCHA04.SAS
    * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
    * PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
    *
    * WRITTEN:  06/01/2000 BY KEITH RATHBUN
    *
    * INPUTS:   1) Benchmark data sets with adjusted scores
    *              (COMPn_i.SD2 where n = composite number and i = group number)
    *
    * OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
    *
    * INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
    *              and composite data sets
    *
    * MODIFIED: 1) Dec 2000 bY Keith Rathbun: Updated variable names for
    *              Q1 2000 Survey.  For the quarterly survey group 8 (all benes)
    *              is being used as the benchmark for all groups (1-8).  Thus,
    *              this group is copied and output to each of the other 7 groups.
    *           2) 01/23/2002 by Mike Scott: Updated variable names to be consistent
    *              with 2000 survey.
    *           4) 04/15/2002 by Mike Scott - Updated variable names for
    *              Q1 2002 Survey.
    *           5) 03/21/2003 by Mike Scott - Updated for 2003 survey.
    *           6) 06/26/2003 by Mike Scott - Updated for Q2 2003.
    *           7) 07/03/2003 by Mike Scott - Added TIMEPD variable to be set to the period
    *              or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
    *              setting to 'Composite'.
    *           8) 07/18/2003 by Mike Scott - Added TIMEPD to FREQ.
    *           9) 10/21/2003 by Mike Scott - Updated for Q3 2003.
    *          10) 03/23/2004 by Mike Scott - Updated for Q1 2004.
    *          11) 06/15/2004 by Regina Gramss - Updated for Q2 2004.
    *          12) 09/2004    by Regina Gramss - Updated for Q3 2004.
    *          13) 05/2005    by Regina Gramss - Updated for Q1 2005.
    *          14) 10/2005    by Regina Gramss - Updated for Q3 2005.
    *          15) 03/24/2006 by Keith Rathbun - Updated for Q2 FY 2006.
    *              Added MACRO loop to process the 8 groups.
    *          16) 10/03/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q3.
    *          17) 12/18/2007 by Justin Oh - Updated BENTYPE composite year to 2006 Q4.
    *          18) 04/05/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q1.
    *           19) 04/05/2007 by Justin Oh - Updated LIBNAME IN2 to be used for purchase RC
programs.
    *          20) 09/04/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q3.
    *          21) 01/10/2008 by Keith Rathbun - Updated for Q1 FY 2008.
    *          22) 04/11/2008 by Justin Oh - Updated BENTYPE composite year to 2008 Q1.
    *          23) 06/13/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q2.
    *          24) 09/29/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q3.
    *          25) 04/10/2009 by Mike Rudacille - Changed variable names to reflect
    *              modifications to beneficiary reports necessary for V4
    *          26) 09/30/2009 by Mike Rudacille - Updated BENTYPE composite year to 2009 Q3.
    *
    * NOTES:
    *
    * 1) The following steps need to be run prior to this program:
    *    - BENCHA01.SAS - Extract Benchmark variables
    *    - BENCHA02.SAS - Recode Benchmark variables
    *    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
    *
    * 2) The output file (BENCHA04.SAS7BDAT) will be run through the
    *    MAKEHTML.SAS program to generate the WEB pages.
    *
    *****************************************************************************
    * Assign data libraries and options
    *****************************************************************************;
    LIBNAME IN  "DATA";
    LIBNAME IN2 "qpredtest";
    LIBNAME OUT "DATA";
    LIBNAME LIBRARY  "..\..\DATA\AFINAL\FMTLIB";
```

```
OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

******************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
******************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

******************************************************************************
******************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* _____
*    Adjusted Score           Definitions
*    Group Number
* _____
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004_R>=7
* 2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004_R>=7
* 3. Enrollees w/civ PCM       XENR_PCM = 3         AND H09004_R>=7
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              BFGROUPP = 1
* 6. Active duty dependents    BFGROUPP = 2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
******************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
******************************************************************************
* Assign value for BENTYPE composite year
******************************************************************************;
%LET YEAR = "2009 Q3"; * Note that this is based on Calendar Year here;

******************************************************************************
* Convert benchmark scores datasets into WEB layout.
******************************************************************************;
%IF &CNUM<6 %THEN %DO;

  DATA INP;
    SET IN2.COMP&CNUM;
     WHERE X=&GNUM;



   DATA INP;
    SET INP  IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;
%ELSE %DO;

   DATA INP;
    SET IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;


   DATA COMP&CNUM._&Gnum;
      SET INP;
     IF _N_=1 THEN
     SET IN.COMP&CNUM._&GNUM;
      LENGTH MAJGRP  $30;
      LENGTH REGION  $25;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;
```

```
       LENGTH TIMEPD  $35;   ***MJS 07/03/03 Added line;

   ************************************************************************
   * For now, assign SIG = 0
   ************************************************************************;
   SIG = 0;

   ************************************************************************
   * Assign major group
   ************************************************************************;
   MAJGRP  = PUT(&Gnum,MAJGRPF.);

   ************************************************************************
   * Assign Region and Regcat
   ************************************************************************;
   REGION  = "Benchmark";
   REGCAT  = "Benchmark";

   ************************************************************************
   * Assign benefit and benefit type
   ************************************************************************;
   IF       &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
   ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
   ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
   ELSE IF &CNUM = 4  THEN BENEFIT = "Customer Service";
   ELSE IF &CNUM = 5  THEN BENEFIT = "Claims Processing";
   ELSE IF &CNUM = 6  THEN BENEFIT = "Health Care";
   ELSE IF &CNUM = 7  THEN BENEFIT = "Health Plan";
   ELSE IF &CNUM = 8  THEN BENEFIT = "Primary Care Manager";
   ELSE IF &CNUM = 9  THEN BENEFIT = "Specialty Care";

   BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
   TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
    IF &CNUM<6 THEN DO;
       IF X=&GNUM THEN DO;
   ************************************************************************
   * Assign composite score and SEMEAN
   ************************************************************************;
          SCORE = TOTADJ;
          SEMEAN = SQRT(SDE**2+SESX**2);

   ************************************************************************
   * Output composite score record for each REGION
   ************************************************************************;
          OUTPUT;
        END;
    END;
   ************************************************************************
   * Now, output the individual score records
   ************************************************************************;
   IF &NVAR GT 1|&CNUM>5 THEN DO;
      ARRAY ITEMS &VARS;
      ARRAY SE     &SE;
      LENGTH NAME $8;
      DO I = 1 TO DIM(ITEMS); DROP I;
         CALL VNAME(ITEMS(I),NAME);
         NAME = SUBSTR(NAME,1,6);
         SCORE  = ITEMS(I);
         SEMEAN = SQRT(SE(I)**2+SESX**2);
         IF &NVAR GT 1 THEN
         BENTYPE = PUT(NAME,$BENTYPF.);
         TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
        IF COMPRESS(UPCASE(NAME))=COMPRESS(UPCASE(VAR)) THEN OUTPUT;
      END;
   END;

KEEP MAJGRP
     REGION
     REGCAT
     BENTYPE
     BENEFIT
     TIMEPD   /*MJS 07/03/03 Added*/
     SEMEAN
     SCORE
```

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```
      SIG
    ;
   RUN;

%MEND;


*******************************************************************************
*******************************************************************************
* Process each of the 8 Groups.
*******************************************************************************
*******************************************************************************;
%MACRO DOIT;
%DO I = 1 %TO 8;
   *******************************************************************************
   * COMPOSITE # 1.
   * GETTING NEEDED CARE VARIABLES.
   *******************************************************************************;
   %PROCESS(CNUM=1, GNUM=&I, NVAR=2, VARS=R09029_&I R09033_&I,
          SE=S_R09029 S_R09033);


   *******************************************************************************
   * COMPOSITE # 2.
   * GETTING CARE QUICKLY VARIABLES.
   *******************************************************************************;
   %PROCESS(CNUM=2, GNUM=&I, NVAR=2, VARS=R09007_&I R09010_&I,
          SE=S_R09007 S_R09010);


   *******************************************************************************
   * COMPOSITE # 3.
   * HOW WELL DOCTORS COMMUNICATE.
   *******************************************************************************;
   %PROCESS(CNUM=3, GNUM=&I, NVAR=4, VARS=R09021_&I R09022_&I R09023_&I R09024_&I,
          SE=S_R09021 S_R09022 S_R09023 S_R09024);


   *******************************************************************************
   * COMPOSITE # 4.
   * CUSTOMER SERVICE.
   *******************************************************************************;
   %PROCESS(CNUM=4, GNUM=&I, NVAR=2, VARS=R09040_&I R09041_&I,
          SE=S_R09040 S_R09041);


   *******************************************************************************
   * COMPOSITE # 5.
   * CLAIMS PROCESSING.
   *******************************************************************************;
   %PROCESS(CNUM=5, GNUM=&I, NVAR=2, VARS=R09045_&I R09046_&I,
          SE=S_R09045 S_R09046);


   *******************************************************************************
   * INDIVIDUAL # 1.
   * RATING OF ALL HEALTH CARE: 0 - 10.
   *******************************************************************************;
   %PROCESS(CNUM=6, GNUM=&I, NVAR=1, VARS=R09018_&I, SE=S_R09018);


   *******************************************************************************
   * INDIVIDUAL # 2.
   * RATING OF HEALTH PLAN: 0 - 10.
   *******************************************************************************;
   %PROCESS(CNUM=7, GNUM=&I, NVAR=1, VARS=R09047_&I, SE=S_R09047);


   *******************************************************************************
   * INDIVIDUAL # 3.
   * RATING OF PERSONAL DOCTOR: 0 - 10.
   *******************************************************************************;
   %PROCESS(CNUM=8, GNUM=&I, NVAR=1, VARS=R09027_&I, SE=S_R09027);


   *******************************************************************************
   * INDIVIDUAL # 4.
   * SPECIALTY CARE: 0 - 10.
   *******************************************************************************;
   %PROCESS(CNUM=9, GNUM=&I, NVAR=1, VARS=R09031_&I, SE=S_R09031);
%END;
%MEND DOIT;
%DOIT;
```

```
    **************************************************************************
    **************************************************************************
    * STACK up all of the files into one final output dataset.
    **************************************************************************
    *************************************************************************;
    DATA OUT.BENCHA04;
       SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
           COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
           COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
           COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
           COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
           COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
           COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
           COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
           COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
        ;
       IF SCORE = . THEN DELETE;
    RUN;

    TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
    TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
    TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
    TITLE4 "Program  Outputs:  BENCHA04.SAS7BDAT  -  Combined  Benchmark  Scores  Database  in  WEB
layout";

    PROC CONTENTS; RUN;

    PROC FREQ;
    TABLES TIMEPD BENEFIT BENTYPE MAJGRP REGION REGCAT
           REGION*REGCAT
          /MISSING LIST;
    RUN;
```

```
*******************************************************************
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   PRVCOMPQ.SAS
*  Author:    Chris Rankin
*  Date:      12/22/2000
*  Modified:  4/19/2001 By Keith Rathbun: Restrict population to
*             xins_cov in(1,2,3,6).  Use POSTSTR instead of
*             adj_cell.
*  Modified:  10/25/01 By Daniele Beahm: Because no poststratification
*             was done for q3 2000, changed POSTSTR back to ADJ_CELL.
*             04/09/02 modified macros the first three macros to create
*             temporary datasets (instead of writing permanent datasets)
*             07/15/02 By Mike Scott: Changed HCS021 to HCS022 for Q2 2002.
*             01/12/03 By Mike Scott: Changed ADJ_CELL to COM_SAMP.
*             03/21/03 By Mike Scott: Changed HCS024 to HCS031 for Q2 2002.
*             04/01/03 By Mike Scott: Replaced HP_FLU with HP_CHOL.
*             04/30/03 By Mike Scott: Changed COM_SAMP to ADJ_CELL.  Changed
*             CMPNUM1 from 4 to 5 and CMPNUM2 from 4 to 3.
*             06/13/03 By Eric Schone.  Changed composite mean & std err calculations
*             to use weights from 2000 input data.
*             07/23/03 By Mike Scott: Removed ..\PROGRAMS\ from INCLUDE.
*             10/21/03 By Mike Scott: Updated for Q3 2003.
*             01/07/04 By Mike Scott: Updated for Q4 2003.
*             02/02/04 By Mike Scott: Set PRVVAR6, PRVVAR7, and PRVVAR8 in DATA NORMDATA
*             to H04023, H04020, and H04031.
*             03/24/04 By Mike Scott: Updated for Q1 2004.
*             04/09/04 By Keith Rathbun: Added Service Affiliation variables to
*             accomodate the consumer watch.
*             06/22/04 By Regina Gramss: Updated for Q2 2004.
*             09/2004  By Regina Gramss: Updated for Q3 2004, to use XTNEXREG
*                                 vs. XREGION
*             01/2005 By Regina Gramss: Updated to create "Last conus_q" for
*                     Q4 2004, replace XTNEXREG with XSERVREG
*             04/2005 By Regina Gramss: Updated for Q1 2005 (update 2004 field names)
*             07/2005 By Regina Gramss: updated for Q2 2005
*             10/2005 By Regina Gramss: Updated for Q3 2005
*             12/2005 By Regina Gramss: Updated for Q4 2005
*             03/24/2006 By Keith Rathbun: Updated for Q2 FY 2006.  Changed reference
*             to ADJ_CELL in 2006 data to be STRATUM.
*             07/2006 By Justin Oh: updated for Q2 FY 2006
*             08/22/2006 By Justin Oh
*                     Changed XSERVREG for Overseas
*                     Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
*                             IF XINS_COV IN (3)     THEN GROUP4 = 1
*                             Since only XINS_COV IN (1,2,3,6) is kept.
*                     Create XOCONUS for 2005 data.
*                     Added XREGION in the keep statement for NORMDATA.
*             10/04/2006 By Justin Oh Updated %LET INDATA and YRDATA.
*             11/15/2006 By Justin Oh Added FIELDAGE in 4 keep statements
*             12/22/2006 By Justin Oh Updated %LET INDATA and YRDATA HCS071_1.
*             04/05/2007 By Justin Oh Updated %LET INDATA and YRDATA HCS072_1.
*             04/05/2007 By Justin Oh Added conditions for RC types
*                     ReportCards OR PurchasedReportCards.
*             05/10/2007 By Justin Oh, Added codes, variables for new reservists logic for
*                     both Norm and Quarter datasets.
*             05/15/2007 By Justin Oh, Changed XINS_COV to NXNS_COV to assign
*                     Groups 1,3, and 4 for new reservists logic.
*             07/30/2007 By Justin Oh, Added added DBENCAT conditions to assign
*                     Groups All, 4, 5, and 6.
*             09/04/2007 By Justin Oh Updated %LET INDATA and YRDATA HCS074_1.
*             01/10/2008 By Keith Rathbun, Updated %LET INDATA and YRDATA HCS081_1.
*                     Also changed H07 variable names to be H08 to match 2008 survey
*             04/11/2008 By Justin Oh Updated %LET INDATA and YRDATA HCS082_1.
*             06/13/2008 By Keith Rathbun Updated %LET INDATA and YRDATA HCS083_1.
*             04/20/2009 By Mike Rudacille Changed RCTYPE and certain variable names for
*                     transition to V4 questionnaire.
*             06/22/2009 By Keith Rathbun Updated %LET INDATA and YRDATA HCS093_1.
*             09/30/2009 By Mike Rudacille Updated %LET INDATA and YRDATA HCS094_1.
*
*  Purpose:   Calculate MPR Preventive Care Composites
```

```
*  Input:      HCSyyq_1.sas7bdat
*  Output:     RFINAL.sas7bdat
*              CFINAL.sas7bdat
*              MFINAL.sas7bdat
*              SFINAL.sas7bdat
*
*  Include
*   Files:     LOADCAHPQ.INC
*   Notes:     Next program is Loadmprq.sas
*
*              ***CHECK PARAMETER ASSIGNMENTS***
*****************************************************************;

     OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
             NOFMTERR COMPRESS=YES;

     /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards           ***/
     %LET RCTYPE = ReportCards;

     LIBNAME IN            "..\..\..\DATA\AFINAL";
     LIBNAME INNORM  v612 "..\..\..\..\2005\DATA";
     LIBNAME OUT          ".";
     LIBNAME LIBRARY      "..\..\..\DATA\AFINAL\FMTLIB";

     %LET WGT=FWRWT;
     %LET NORMWGT = CFWT;
     %LET NORMDAT = HCS05A_1;

     %LET DEBUG=Y;       /** Set to Y for Debug print of datasets **/
     %LET INDATA=HCS094_1;

     %LET YRDATA=HCS094_1;

     /***** The following parameters are used in the Variance ****/
     /***** calcuation macro for region and catchment area    ****/

     %LET GRPNUM=8;       /** number of groups           **/
     %LET COMPNUM=7;      /** number of variables        **/  /* RSG – 04/2005 changed from 8 to 7
(eliminate cholesterol*/
     %LET REGNUM=15;      /** number of regions          **/  /* RSG – 01/2005 CHANGED TO FIT THE
16 CATEGORIES OF XSERVREG */
                                                              /* JSO 08/24/2006 (16 TO 15) Changed
Overseas Regions*/
     %LET CATCHNUM=9999; /** number of catchment areas **/

     %LET CMPNUM1=4;      /** number of variables in first composite  **/   /*RSG 04/2005 Changed
CMPNUM1 from 5 to 4*/
     %LET CMPNUM2=3;      /** number of variables in second composite **/   /*MJS 04/30/03 Changed
CMPNUM2 from 4 to 3*/

     %LET COMPCNT=2;      /** number of composites                **/

     **** set up benchmarks for preventive services ;
     **** note -- these are the hp 2000 goals         ;

     %LET GOALVAR1= .90;    /** HP Goal for prenatal care        **/
     %LET GOALVAR2= .70;    /** HP Goal for Mammography          **/
     %LET GOALVAR3= .90;    /** HP Goal for Papsmear             **/
     %LET GOALVAR4= .95;    /** HP Goal for Blood Pressure check **/
     %LET GOALVAR5= .90;    /** access goals                         **/ /*04/2005 – RSG: DELETED
CHOLESTEROLE GOAL*/
     %LET GOALVAR6= .90;
     %LET GOALVAR7= .98;

     %INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

     ************************************************************;
     * Beneficiary group note
     *    Eight groups            Definitions
     * _____;
     * 1. Prime enrollees         XINS_COV IN (1,2,6) AND H09004>=2
     * 2. Enrollees w/mil PCM     XENR_PCM IN (1,2,6) AND H09004>=2
     * 3. Enrollees w/civ PCM     XENR_PCM IN (3,7)   AND H09004>=2
     * 4. Nonenrollees            XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
```

```
      * 5. Active duty             XBNFGRP = 1
      * 6. Active duty dependents   XBNFGRP = 2
      * 7. Retirees                 XBNFGRP IN (3,4)
      * 8. All beneficiaries        ALL
      *************************************************************;


      /**** note -- output all data to a single dataset for macro */
      /**** call                                                  */
      /**** MACROS are no longer called for catchment areas       */

      /* 08/24/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
      LIBNAME LIBRARY '..\..\..\..\2005\Data\fmtlib';

      DATA NORMDATA(KEEP=XTNEXREG XSERVREG &WGT PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                      DENV1-DENV&COMPNUM XSERVAFF FIELDAGE);
                      /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

        set INNORM.&NORMDAT(KEEP=MPRID XINS_COV HP_BP HP_MAMOG HP_PAP HP_PRNTL XTNEXREG
                                XENR_PCM XBNFGRP ENBGSMPL &NORMWGT ADJ_CELL DBENCAT
                                 H05022 H05019 H05030 H05007 H05006 SERVAFF XREGION FIELDAGE);
                      /* 08/24/2006 JSO Added XREGION in the keep statement to get XOCONUS
   */
                      /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                      /* 05/10/2007 JSO Added H05006, DBENCAT in the keep statement */

      ****************************************************************************
      * For quarterly reports, catchment level reporting is not done
      * so the value of cellp is set to 1.
      * For annual reporting purposes, cellp will need to be assigned
      * to geocell
      ****************************************************************************;

      /*RSG 02/2005 Added codes to define XTNEXREG & XSERVAFF*/

        IF SERVAFF = 'A' THEN XSERVAFF = 1;          *Army;
        ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
        ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
        ELSE XSERVAFF = 4;                          *Other/unknown;

        IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

        IF XTNEXREG = . THEN DELETE;

        IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

        NXNS_COV = XINS_COV;              /*JSO 04/26/2007 added for reservists logic*/
                                          /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
        IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
        IF DBENCAT IN('GRD','IGR') AND H05006 = 3 THEN DO;
           NXNS_COV = 3;
           XENR_PCM = .;
        END;

        PRVVAR1=HP_PRNTL;           /** prenatal care  **/
        PRVVAR2=HP_MAMOG;           /** mammography    **/
        PRVVAR3=HP_PAP;             /** papsmear       **/
        PRVVAR4=HP_BP;              /** blood pressure **/
        PRVVAR5=H05022;             /** access var 1   **/
        PRVVAR6=H05019;             /** access var 2   **/
        PRVVAR7=H05030;             /** access var 3   **/

      /**** set up numerator and denominator for proportions ****/

        ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
        ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
        ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

        DO I = 1 TO &COMPNUM;
           IF I LE  &CMPNUM1 THEN DO;
              IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
              ELSE NUMER(I)=0;
              IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
           END;
```

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```
          ELSE IF I GT &CMPNUM1 THEN DO;
              IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
              ELSE NUMER(I)=0;
              IF PRVVAR(I) > 0 THEN DENOM(I)=1;
          END;
      END;
      DROP I;
      DENV4=1;

    /* 08/22/2006, JSO Create XOCONUS for 2005 data */
        IF     XREGION=13 THEN XOCONUS=1;
        ELSE IF XREGION=14 THEN XOCONUS=2;
        ELSE IF XREGION=15 THEN XOCONUS=3;

    /*RSG 02/2005 Added codes to define XSERVREG CACSMPL*/

        IF XTNEXREG = 1 THEN DO;
            IF XSERVAFF = 1 THEN XSERVREG = 1;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
          ELSE XSERVREG = 4;
        END;

        IF XTNEXREG = 2 THEN DO;
            IF XSERVAFF = 1 THEN XSERVREG = 5;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
          ELSE XSERVREG = 8;
        END;

        IF XTNEXREG = 3 THEN DO;
            IF XSERVAFF = 1 THEN XSERVREG = 9;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
          ELSE XSERVREG = 12;
        END;

        IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
            IF     XOCONUS = 1 THEN XSERVREG = 13;
          ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
          ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
        END;

      RENAME &NORMWGT = &WGT;
    run;

    /* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
    LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";

    DATA &YRDATA(KEEP=BGROUP MHS USA XSERVAFF CACSMPL &WGT TMP_CELL
                     PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                     DENV1-DENV&COMPNUM XTNEXREG XSERVREG FIELDAGE);
                     /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

       SET  IN.&INDATA(KEEP=XINS_COV HP_BP XTNEXREG HP_MAMOG HP_PAP HP_PRNTL     /*RSG 04/2005
DELETE HP_CHOL*/
                        XREGION SERVAFF XENR_PCM XBNFGRP ENBGSMPL &WGT CACSMPL
                        STRATUM H09010 H09007 /*H09030A*/ H09004 H09003 D_HEALTH FIELDAGE
DBENCAT);
                        /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                        /* 05/10/2007 JSO Added H07006, DBENCAT in the keep statement */

    *****************************************************************************
    * For quarterly reports, catchment level reporting is not done
    * so the value of cellp is set to 1.
    * For annual reporting purposes, cellp will need to be assigned
    * to geocell
    *****************************************************************************;
    IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
    ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
    ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
    ELSE XSERVAFF = 4;                         *Other/unknown;

    CELLP = 1;
```

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```
   LENGTH TMP_CELL 8;
   TMP_CELL = STRATUM;    /* Make STRATUM a numeric variable */

   IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

   IF XTNEXREG = . THEN DELETE;

   IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;   /*JSO 07/30/2007, Added 9*/

   NXNS_COV = XINS_COV;    /*JSO 05/14/2007 added for reservists logic*/
                          /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
   IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
   IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
      NXNS_COV = 3;
      XENR_PCM = .;
   END;

   PRVVAR1=HP_PRNTL;          /** prenatal care  **/
   PRVVAR2=HP_MAMOG;          /** mammography    **/
   PRVVAR3=HP_PAP;            /** papsmear       **/
   PRVVAR4=HP_BP;             /** blood pressure **/
   /*RSG 04/2005 - delete cholesterol, renumber PRVVAR below*/
   PRVVAR5=H09010;            /** access var 1   **/
   PRVVAR6=H09007;            /** access var 2   **/
*  PRVVAR7=H09030A;           /** access var 3   **/
/* MER temporary workaround 06/30/09 */
   PRVVAR7=2;

/**** set up numerator and denominator for proportions ****/

   ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
   ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
   ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

   DO I = 1 TO &COMPNUM;
      IF I LE  &CMPNUM1 THEN DO;
         IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
      END;
      ELSE IF I GT &CMPNUM1 THEN DO;
         IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) > 0 THEN DENOM(I)=1;
      END;
   END;
   DROP I;
   DENV4=1;

   MHS= 1;   /* set up dummy for MHS-- include all observations */

  /* 08/22/2006, JSO Create XOCONUS for 2005 data */
   IF      XREGION=13 THEN XOCONUS=1;
   ELSE IF XREGION=14 THEN XOCONUS=2;
   ELSE IF XREGION=15 THEN XOCONUS=3;

   IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
      ELSE XSERVREG = 4;
   END;

   IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 5;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
      ELSE XSERVREG = 8;
   END;

   IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 9;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
```

```
           ELSE XSERVREG = 12;
       END;

       IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
           IF      XOCONUS = 1 THEN XSERVREG = 13;
           ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
           ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
       END;

    *****************************************************************************
    * Assign indicator of CONUS based on XTNEXREG.  CONUS stands for
    * Contential United States it but includes both Alaska and Hawaii.
    * 1/16/09 Changed CONUS to USA.
    *****************************************************************************;
       IF XTNEXREG IN (1,2,3) THEN USA=1;                                    /*RSG 01/2005 OVERALL
CONUS*/

       ELSE IF XTNEXREG = 4 THEN USA=2;

    * Prime enrollees      *;

       IF (NXNS_COV IN (1,2,6) AND H09004>=2) THEN DO;
          BGROUP=1;
          OUTPUT;
       END;

    * Enrollees with military PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
          (XENR_PCM IN (1,2,6) AND H09004>=2) THEN DO;
          BGROUP=2;
          OUTPUT;
       END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
          (XENR_PCM IN (1,2) AND H09004>=2) THEN DO;
          BGROUP=2;
          OUTPUT;
       END;

    * Enrollees with civilian PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
          (XENR_PCM IN (3,7) AND H09004>=2) THEN DO;
          BGROUP=3;
          OUTPUT;
       END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
          ((XENR_PCM IN (3) AND H09004>=2) OR NXNS_COV IN (3,9)) THEN DO;   /*JSO 07/30/2007,
Added 9*/
          BGROUP=3;
          OUTPUT;
       END;

    * Nonenrollees *;

       IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
          BGROUP=4;                 /*JSO 07/30/2007, Added 9*/
          OUTPUT;
       END;

    * Active duty       *;

       IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
          BGROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
          OUTPUT;
       END;

    * Active duty dependents  *;

       IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
          BGROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
          OUTPUT;
       END;

    * Retirees  *;
```

```
     IF XBNFGRP IN (3,4) THEN DO;
        BGROUP=7;
        OUTPUT;
     END;

   * All beneficiaries *;

     BGROUP=8;
     OUTPUT;
   RUN;


   DATA HCSDB;
   SET &YRDATA;
   RUN;

   ********************************************************
   *** First, calculate standard errors and create     ***
   *** a file for each analytical unit                  ***
   ********************************************************;

   PROC SORT DATA=HCSDB; BY TMP_CELL;
   RUN;

   ********************************************************
   ***** Sudaan macro to calculate standard errors   *****
   ***** there are three output datasets created      *****
   ***** (XTNEXREG, XSERVREG, MHS, XSERVAFF)                     *****
   ***** Note:  7/10/2000 use CONUS for MHS           *****
   ***** Note:  there are 8 variables and 8 groups    *****
   ***** Note:  1/16/09 Changed CONUS to USA          *****
   ********************************************************;

   %MACRO A_SUDAAN(TABLEVAR);

   *** set the number of levels in the proc descript ***;
   *** for region or catchment                       ***;

    %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
        %LET ENDNUM=4;
        %LET PREF=S;          /** dataset prefix for service affiliation data    **/
    %END;
    %IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
        %LET ENDNUM=&REGNUM;
        %LET PREF=R;          /** dataset prefix for region data    **/
    %END;
    %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %LET PREF=C;            /** dataset prefix for
catchement area data **/

    %ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
        %LET ENDNUM=4;      /** RSG 01/2005 Change level of conus to 4 **/
        %LET PREF=M;
    %END;

    %DO I=1 %TO &GRPNUM;     /** 8 groups    **/

        %DO J=1 %TO &COMPNUM;   /** 7 variables **/

            DATA INDATA&I.&J(KEEP=&WGT MHS USA XSERVAFF XTNEXREG XSERVREG CACSMPL
                              XSERVAFF NUMV&J DENV&J TMP_CELL);
               SET HCSDB;
               WHERE XSERVREG > 0 AND BGROUP=&I AND DENV&J > 0;
               %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
                  IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;  /*RSG 01/2005 Delete Conus
greater than 4 which are not conus */
               %END;
                  %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
                      IF USA NE 1 THEN DELETE;
                  %END;
                  %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
                      IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
                  %END;

            RUN;
```

```
*** Calculate values for regions, catchment areas ****;

        %IF %UPCASE(&TABLEVAR) NE USA %THEN %DO;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUMV&J;
                TABLES &TABLEVAR;
                SUBGROUP &TABLEVAR;
                LEVELS &ENDNUM;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
                FILENAME=&PREF.GRP&I.V&J;
            RUN;

        %END;
        %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;

**** No tables, levels, or subgroups needed ****;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUMV&J;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
                FILENAME=&PREF.GRP&I.V&J;
            RUN;

        %END;

***** first, put all variables into one dataset for each group *****;

        DATA &PREF.GRP&I.V&J;
            SET &PREF.GRP&I.V&J;
            IF SEMEAN NE .;
            MHS=1;
            %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
                USA=1;
            %END;
        RUN;

        %IF &J=1 %THEN %DO;
            DATA &PREF.SEGRP&I;
                SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                GROUP=&I;
                IF SEMEAN NE .;
                RENAME SEMEAN = SERRV&J;
            RUN;
        %END;
        %ELSE %DO;
            DATA &PREF.SEGRP&I;
                MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                BY &TABLEVAR;
                GROUP=&I;
                RENAME SEMEAN = SERRV&J;
            RUN;
        %END;
    %END;

***** Put all data into one dataset  *****
***** Note:  changed output dataset  *****
***** to include group               *****;

    %IF &I=1 %THEN %DO;

        DATA &PREF.SERR;
            SET &PREF.SEGRP&I;
            KEEP GROUP &TABLEVAR SERRV1-SERRV&COMPNUM;
        RUN;
    %END;
    %ELSE %DO;
```

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```
            DATA &PREF.SERR;
                SET &PREF.SERR
                &PREF.SEGRP&I;
            RUN;
        %END;


    ******** DEBUG PRINT   *******;

        %IF &DEBUG=Y %THEN %DO;
            %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
                PROC PRINT DATA=&PREF.SERR;
                    VAR &TABLEVAR GROUP SERRV1-SERRV&COMPNUM;
                RUN;
            %END;
        %END;

     %END;

    %MEND A_SUDAAN;

    %A_SUDAAN (USA);
    %A_SUDAAN (XSERVAFF);
    %A_SUDAAN (XSERVREG);
    %A_SUDAAN (XTNEXREG);

    ***********************************************************
    *** Next, calculate correlation coefficients        ***
    *** and create a file for each analytical unit      ***
    ***********************************************************;

    %MACRO GETCORR(BYVAR);

     %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
     %ELSE %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
     %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
     %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;

     PROC SORT DATA=HCSDB; BY &BYVAR;
     RUN;

     %DO I = 1 %TO &GRPNUM;

        PROC CORR NOPRINT DATA=HCSDB OUTP=&PREF.CORRC&I;
            %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %DO;
                WHERE BGROUP=&I AND 1 <= XSERVAFF <= 4;      /** RSG 0/2005 Change conus values to
keep to be between 1-4 **/
            %END;
            %IF %UPCASE(&BYVAR)=USA %THEN %DO;
                WHERE BGROUP=&I AND USA = 1;
            %END;
             %ELSE %DO;
                WHERE BGROUP=&I;
             %END;
             BY &BYVAR;
             VAR PRVVAR1-PRVVAR&COMPNUM;
             WITH PRVVAR1-PRVVAR&COMPNUM;
             WEIGHT &WGT;
        RUN;

        DATA &PREF.CORRC&I;
          SET &PREF.CORRC&I;
          WHERE _TYPE_="CORR";
          GROUP=&I;
          ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
          ARRAY NEW CORV1-CORV&COMPNUM;
          DO J = 1 TO &COMPNUM;
              NEW(J)=OLD(J);
          END;
          DROP J PRVVAR1-PRVVAR&COMPNUM;
        RUN;

        %IF &I=1 %THEN %DO;
```

```
               DATA &PREF.CORRC;
                  SET &PREF.CORRC&I;
               RUN;

          %END;
          %ELSE %DO;

               DATA &PREF.CORRC;
                  SET &PREF.CORRC
                  &PREF.CORRC&I;
               RUN;

          %END;
          %IF &DEBUG=Y %THEN %DO;
               %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
                  PROC PRINT DATA=&PREF.CORRC;
                       WHERE GROUP=1;
                  RUN;
               %END;
          %END;
     %END;
 %END;

*** Flatten dataset(for each region, condense matrix to one row) ***;

 %DO K=1 %TO &COMPNUM;

     DATA &PREF.CORR&K;
        SET &PREF.CORRC;
        WHERE _NAME_ = "PRVVAR&K";
        ARRAY CORR   (&COMPNUM) CORV1-CORV&COMPNUM;
        ARRAY CORR&K (&COMPNUM) CORV&K.1-CORV&K.&COMPNUM;
        DO L=1 TO &COMPNUM;
           CORR&K(L)=CORR(L);
        END;
        KEEP GROUP &BYVAR CORV&K.1-CORV&K.&COMPNUM;
     RUN;
     %IF &K=1 %THEN %DO;
          DATA &PREF.CORR;
             SET &PREF.CORR&K;
          RUN;
     %END;
     %ELSE %DO;
          DATA &PREF.CORR;
            MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
             BY GROUP &BYVAR;
          RUN;
     %END;
     %IF &DEBUG=Y %THEN %DO;
          %IF &PREF=R %THEN %DO;
             PROC PRINT DATA=&PREF.CORR;
                  WHERE GROUP=1;
             RUN;
          %END;
       %END;
 %END;

%MEND GETCORR;

%GETCORR(USA);
%GETCORR(XSERVAFF);
%GETCORR(XSERVREG);
%GETCORR(XTNEXREG);

**********************************************************
***   Macro to derive composites for each        *******
***   beneficiary group, level                   *******
***   output one dataset for each group          *******
**********************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
```

```
        %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
        %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
        %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;


     PROC MEANS NWAY NOPRINT DATA=HCSDB;
        CLASS BGROUP &BYVAR;
        VAR NUMV1-NUMV&COMPNUM
            DENV1-DENV&COMPNUM;
        WEIGHT &WGT;
        OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
        SUM =  ;
     RUN;
     PROC MEANS NWAY NOPRINT DATA=normdata;
     *   CLASS &BYVAR;
        VAR
            DENV1-DENV&COMPNUM;
        WEIGHT &wgt.;
        OUTPUT OUT= &PREF.norms(DROP = _TYPE_)
        SUM =  nrmv1-nrmv&compnum;
     RUN;

     PROC MEANS NWAY NOPRINT DATA=HCSDB;
        CLASS BGROUP &BYVAR;
        VAR DENV1-DENV&COMPNUM;
        OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
        SUM= NOBSV1-NOBSV&COMPNUM;
     RUN;

    data &pref.cmpsum;

    if _n_=1 then set &pref.norms;
    set &pref.cmpsum;
    proc sort data=&pref.cmpsum; by bgroup &byvar;
     DATA &PREF.CMPSUM;
        MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS))
              &PREF.DGFR;
        BY BGROUP &BYVAR;
        %IF &PREF=M %THEN %DO;  /** added 7/10/2000 **/
            WHERE 1 <= XSERVAFF <= 4;          /** RSG 01/2005 Change conus values to keep to be
between 1-4 **/
        %END;
        %ELSE %IF &PREF=C %THEN %DO;
            WHERE USA = 1;
        %END;

      **** set up group variable  **;

       RENAME BGROUP=GROUP;;

      **** set up proportions, and composites **;

       ARRAY PROPORT PROPV1-PROPV&COMPNUM;
       ARRAY NUMER   NUMV1-NUMV&COMPNUM;
       ARRAY DENOM   DENV1-DENV&COMPNUM;
       array norm    nrmv1-nrmv&compnum;

       DO J=1 TO DIM(PROPORT);
          PROPORT(J) = NUMER(J)/DENOM(J);
       END;
       DROP J;

      **** composites **;


    ** added goalvars to datastep, 5/30/2000                    ;
    ** taken out of temporary array for variance calculations;
    ** and used, kept as variables                          ;

      GOALVAR1=&GOALVAR1;
      GOALVAR2=&GOALVAR2;
      GOALVAR3=&GOALVAR3;
      GOALVAR4=&GOALVAR4;
      GOALVAR5=&GOALVAR5;
```

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```
   GOALVAR6=&GOALVAR6;
   GOALVAR7=&GOALVAR7;
 /*RSG 04/2005 - delete goal8 since chol eliminated*/

 ** the weight for preventive service is defined as the          ;
 **   proportion   of   the   denominator   for   that   service   to   the                ;
;
 ** composite denominator                                        ;
 ** healthy people 2000 goals -- used as benchmarks              ;

   ARRAY   SVCWGT(&COMPNUM) WGTV1-WGTV&COMPNUM;
   ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
   ARRAY WGTBMARK(&COMPNUM) WTDV1-WTDV&COMPNUM;
   array comp(&compnum) cmpv1-cmpv&compnum;
 cpden1=sum(of nrmv1-nrmv&cmpnum1);
 cpden2=sum(of nrmv&start-nrmv&compnum);
   DO K = 1 TO &COMPNUM;
       IF K < &START THEN SVCWGT(K)= norm(K)/CPDEN1;
       ELSE SVCWGT(K) = norm(K)/CPDEN2;
       WGTBMARK(K) = SVCWGT(K)*BMARK(K);
       comp(k)=svcwgt(k)*proport(k);
   END;
   DROP K;
   CPBMK1=SUM(OF WTDV1-WTDV&CMPNUM1);
   CPBMK2=SUM(OF WTDV&START-WTDV&COMPNUM);
   comp1=sum(of cmpv1-cmpv&cmpnum1);
 comp2=sum(of cmpv&start-cmpv&compnum);
  DROP WGTV1-WGTV&COMPNUM WTDV1-WTDV&COMPNUM
        NUMV1-NUMV&COMPNUM;
  RUN;

  %IF &DEBUG=Y AND &PREF=R %THEN %DO;
      PROC PRINT DATA=&PREF.CMPSUM;  /* print out final dataset */
      RUN;                           /* for region to check     */
  %END;

 %MEND GETPROP;

 %GETPROP(USA);
 %GETPROP(XSERVAFF);
 %GETprop(XSERVREG);
 %GETPROP(XTNEXREG);

 *********************************************************
 ** since MHS benchmarks will be displayed       ****
 ** set up adjustment factor to apply to         ****
 ** each analytical unit's composite benchmarks     ****
 *********************************************************;


 *********************************************************
 ***   Macro to merge 3 datasets for each          *******
 ***   called by analytical unit                   *******
 ***   output final dataset for                    *******
 ***   XSERVAFF, XSERVREG, XTNEXREG, MHS (USA)     *******
 *********************************************************;

 PROC FORMAT;  /*RSG 02/2005 - hardcoded in prog to have caps vs format in loadcahq.inc*/
    VALUE REGIONF
        0 = "USA MHS "
        1 = "NORTH"
        2 = "SOUTH"
        3 = "WEST"
        4 = "OVERSEAS"
     ;
 %MACRO GETSIG(BYVAR);

  %LET START = %EVAL(&CMPNUM1+1);
  %LET NEXT  = %EVAL(&CMPNUM1+2);

  %IF &BYVAR=XSERVREG %THEN %LET PREF=R;
  %ELSE %IF &BYVAR=USA %THEN %LET PREF=C;
  %ELSE %IF &BYVAR=XSERVAFF %THEN %LET PREF=M;
  %ELSE %IF &BYVAR=XTNEXREG %THEN %LET PREF=S;
```

```
        DATA OUT.&PREF.FINAL(KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
                    SIGV1-SIGV&COMPNUM SCORV1-SCORV&COMPNUM
                    CPSIG1-CPSIG&COMPCNT CP1SE CP2SE
                    CSCOR1-CSCOR&COMPCNT CPBMK1-CPBMK&COMPCNT
                    SERRV1-SERRV&COMPNUM CP1SE CP2SE
                    COMP1 COMP2 PROPV1-PROPV&COMPNUM
                    DFSCR1-DFSCR&COMPNUM DF_CP1 DF_CP2
                    NOBSV1-NOBSV&COMPNUM CPOBS1-CPOBS&COMPCNT
                    DENV1-DENV&COMPNUM CPDEN1-CPDEN&COMPCNT);

        FORMAT MAJGRP $30. REGION $25. REGCAT $26.;
             MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
             &PREF.SERR;
             BY GROUP &BYVAR;
             IF IN_PROP;
      %DO Z=1 %TO &COMPCNT;

                   CSCOR&Z=COMP&Z.*100;

        %END;
      **  MAJGRP -- text field for group   **;
        IF      GROUP=1 THEN MAJGRP="Prime Enrollees            ";
        ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
        ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
        ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
        ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
        ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
        ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
        ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

      **** REGION AND REGCAT SETUP          **;
        %IF &PREF=S %THEN %DO;
             REGCAT=PUT(XTNEXREG,REGIONF.);
             REGION=PUT(XTNEXREG,REGIONF.);
        %END;
        %else %IF &PREF=C %THEN %DO;
             REGION="USA MHS";
             REGCAT="USA MHS";
        %END;
        %ELSE %IF &PREF=R %THEN %DO;
             REGION=PUT(XSERVREG, SERVREGO.);
             REGCAT=PUT(XSERVREG, SERVREGO.);
        %END;
        %ELSE %IF &PREF=M %THEN %DO;                       /** RSG 1/2005 Add codes for service
grouping **/
             REGION=PUT(XSERVAFF,XSERVAFF.);
             REGCAT=PUT(XSERVAFF,XSERVAFF.);
        %END;

      **** setup t statistics, degreees of freedom     **;
        ARRAY   TSTAT{&COMPNUM} T_V1-T_V&COMPNUM;
        ARRAY    BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
        ARRAY  STNDERR{&COMPNUM} SERRV1-SERRV&COMPNUM;
        ARRAY  SERRSQR{&COMPNUM} SESQV1-SESQV&COMPNUM;
        ARRAY     DEGF{&COMPNUM} DFSCR1-DFSCR&COMPNUM;
        ARRAY    DENOM{&COMPNUM} DENV1-DENV&COMPNUM;
        ARRAY  PROPORT{&COMPNUM} PROPV1-PROPV&COMPNUM;
        ARRAY    SCORE{&COMPNUM} SCORV1-SCORV&COMPNUM;
        ARRAY   PVALUE{&COMPNUM} PVALV1-PVALV&COMPNUM;
        ARRAY      SIG{&COMPNUM} SIGV1-SIGV&COMPNUM;
        ARRAY     NOBS{&COMPNUM} NOBSV1-NOBSV&COMPNUM;
        array     norm{&compnum} nrmv1-nrmv&compnum;

      ** get the item variance, t-statistics, df, p-values **;
      ** and whether significant                          **;
        DO I=1 TO &COMPNUM;
             SERRSQR{I}=STNDERR{I}**2;  /* Item variance */
             SCORE{I}=PROPORT{I}*100;    /* Score (prop. * 100) */
             IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
             ELSE TSTAT{I}=.;
             DEGF{I}=NOBS{I}-1;
             PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
```

```
            IF PVALUE{I} GE .05 THEN SIG{I}=0;
            ELSE IF PVALUE{I} < .05 THEN DO;
                IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
                IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
            END;
        END;
        DROP I;

    ** multiply each item pair std. errors and correlation coefficients **;
    ** preventive care composite                                        **;
  ARRAY SEwC1{&CMPNUM1} SEwV1-SEwV&CMPNUM1;

    ARRAY SERRC1{&CMPNUM1} SERRV1-SERRV&CMPNUM1;
    %DO J = 1 %TO &CMPNUM1;
        ARRAY  SMEAN&J{&CMPNUM1} SEMV&J.1-SEMV&J.&CMPNUM1;
        ARRAY CORVAR&J{&CMPNUM1} CORV&J.1-CORV&J.&CMPNUM1;
        DO K=1 TO &CMPNUM1;
            SMEAN&J{K}=SERRV&J*SERRC1{K}*CORVAR&J{K}*norm{K}*nrmV&J
        END;
        SEMV&J.&J=0;
         sewv&j= (nrmV&j**2)*SESQV&j;/** don't count in final standard error calculation
**/
    %END;
        DROP K;
    ** multiply each item pair std. errors and correlation coefficients **;
    ** access to care composite                                          **;

    ARRAY SERRC2{&CMPNUM2} SERRV&START-SERRV&COMPNUM;
    %DO L = &START %TO &COMPNUM;
        ARRAY  SMEAN&L{&CMPNUM2} SEMV&L.&START-SEMV&L.&COMPNUM;
        ARRAY CORVAR&L{&CMPNUM2} CORV&L.&START-CORV&L.&COMPNUM;
        DO M=1 TO &CMPNUM2;
            SMEAN&L{M}=SERRV&L*SERRC2{M}*CORVAR&L{M};
        END;
        SEMV&L.&L=0;  /** don't coun't in final standard error calculation **/
    %END;
        DROP M;
    ** calculate composite t-statistic, pvalue, and whether significant **;
    ** for composites                                                   **;
    %DO P=1 %TO &COMPCNT;
        %IF &P=1 %THEN %DO;
        ** composite standard error comprised of two parts **;
            CP&P.SE1=SUM(OF SEwV1-SEwV&CMPNUM1);
            CP&P.SE2=SUM(OF SEMV11-SEMV&CMPNUM1.&CMPNUM1.);
            cpobs&p=sum(of nobsv1-nobsv&cmpnum1);
        %END;
        %ELSE %DO;
            CP&P.SE1=SUM(OF SESQV&START-SESQV&COMPNUM);
            CP&P.SE2=SUM(OF SEMV&START.&START.-SEMV&COMPNUM.&COMPNUM.);
            cpobs&p=sum(of nobsv&start-nobsv&compnum);
        %END;
    ** add the two parts of the composite standard error  **;
    ** calculate the composite t statistics and p-values  **;
    ** determine whether differences are sigificant       **;

        CP&P.SE=SQRT(CP&P.SE2+CP&P.SE1)/CPden&P;
        IF CP&P.SE > 0 THEN CP_T&P.=(COMP&P.-CPBMK&P.)/CP&P.SE;
        ELSE CP_T&P.= .;
        DF_CP&P.=CPOBS&P. - 1;
        CP_P&P.=(1-PROBT(ABS(CP_T&P.),DF_CP&P.))*2;
        IF CP_P&P GE .05 THEN CPSIG&P=0;
        ELSE IF CP_P&P < .05 THEN DO;
            IF COMP&P. > CPBMK&P THEN CPSIG&P= 1;
            ELSE IF COMP&P. < CPBMK&P THEN CPSIG&P=-1;
        END;
    %END;

    OUTPUT OUT.&PREF.FINAL;
 RUN;

%MEND GETSIG;


%GETSIG(USA);
%GETSIG(XTNEXREG);
```

```
%GETSIG(XSERVREG);
%GETSIG(XSERVAFF);
```

```
        ****************************************************************************
        *
        *  Project:   DoD Reporting and Analysis 6077-410
        *  Program:   SMOKING_BMI.SAS
        *  Purpose:   Calculate Smoking Rate and Smoking Cessation
        *             for each region-service affiliation and
        *             conus-service affiliation groups.
        *
        *  Date:      1/31/2005
        *  Author:    Regina Gramss
        *
        *  Modified:  1) 04/2005 By Regina Gramss, Updated for Q1 2005.
        *             2) 12/2005 By Regina Gramss, Updated for Q4 2005.
        *             3) 01/2006 By Regina Gramss - Updated for 2005 annual data.  Normalize
        *                with 2005 data and not 2000.  Standardize using age/sex and MPCSMPL
        *                (military personnel category).  Update smoking cessation
        *                calculation with new formula to correspond more to HEDIS.  Use new
        *                weight (CFWT) and use STRATUM as TMP_CELL.
        *             4) 03/24/2006 By Keith Rathbun, Updated for Q2 FY 2006.
        *             5) 07/12/2006 By Justin Oh, Updated for Q3 FY 2006.
        *             6) 08/24/2006 By Justin Oh, REGNUM changed from 16 to 24.
        *                Changed XSERVREG for Overseas
        *                Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
        *                        IF XINS_COV IN (3)     THEN GROUP4 = 1
        *                Since only XINS_COV IN (1,2,3,6) is kept.
        *                Create XOCONUS for 2005 data.
        *                Added/Moved LIBRARY Libname to use both Quarter/Annual Formats.
        *             7) 10/04/2006 By Justin Oh, Updated %LET DSN and CURRENT.
        *              8) 12/22/2006 By Justin Oh, Updated %LET DSN HCS071_1 and CURRENT October,
        2006.
        *              9) 02/02/2007 By Justin Oh, Added "s" to Healthy Behaviors
        *             10) 04/05/2007 By Justin Oh, Updated %LET DSN HCS072_1 and CURRENT January,
        2007.
        *             11) 04/05/2007 By Justin Oh, Added conditions for RC types
        *                         ReportCards OR PurchasedReportCards.
        *             12) 05/10/2007 By Justin Oh, Added codes, variables for new reservists logic
        for
        *                         both Norm and Quarter datasets.
        *             13) 05/15/2007 By Justin Oh, Changed XINS_COV to NXNS_COV to assign
        *                         Groups 1,3, and 4 for new reservists logic.
        *             14) 07/30/2007 By Justin Oh, Added added DBENCAT conditions to assign
        *                         Groups All, 4, 5, and 6.
        *             15) 09/04/2007 By Justin Oh, Updated %LET DSN HCS074_1 and CURRENT July, 2007.
        *              16) 01/10/2008 By Keith Rathbun, Updated %LET DSN HCS081_1 and CURRENT
        October, 2007.
        *                         Also changed H07 variable names to be H08 to match 2008 survey.
        *              17) 04/11/2008 By Justin Oh, Updated %LET DSN HCS082_1 and CURRENT January,
        2008.
        *              18) 06/13/2008 By Keith Rathbun, Updated %LET DSN HCS083_1 and CURRENT April,
        2008.
        *               19) 03/11/2009 By Keith Rathbun, Updated %LET DSN HCS092_1 and CURRENT
        January, 2009.
        *              20) 04/20/2009 By Mike Rudacille, Switched from 2005 to 2007 benchmark data
        for transition to
        *                 V4 questionnaire.
        *             21) 05/05/2009 By Mike Rudacille, Updated for 2008 benchmark data.
        *              22) 06/22/2009 By Keith Rathbun, Updated %LET DSN HCS093_1 and CURRENT April,
        2009.
        *                         Changed weight variable from FWRWT_V4 back to FWRWT.
        *             23) 09/30/2009 By Mike Rudacille, Updated %LET DSN HCS094_1 and CURRENT July,
        2009.
        *
        *    Inputs:   1) HCS05A_1.SD2 - Annual 2005 Survey data
        *              2) HCS093_1.sas7bdat - Q3 fy 2009 Survey data
        *              3) AC2008DB.sas7bdat - 2008 CAHPS Benchmark Data
        *
        *    Output:   1) SMOKE.sas7bdat
        *
        *
        ****************************************************************************;
```

```
    OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR;

    /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
    %LET RCTYPE = ReportCards;

    LIBNAME BENCH        "..\..\..\..\2008AdultChildNCBD\Adult";
    LIBNAME INDAT        "..\..\..\Data\afinal";
    LIBNAME INNORM v612 "..\..\..\..\2005\Data";
    LIBNAME OUT          ".";

    %LET DSN=HCS094_1;
    %LET DSN_NORM=HCS05A_1;                 /*JSO 08/24/2006, Changed Regions, 16 to 15*/
        %LET REGNUM = 15;                              /*RSG 01/2005 Number of Regions (with serv
affiliation)*/
        %LET CONNUM = 4;                           /*RSG 01/2005 Number of Conus level (with serv
affiliation)*/
    %LET CURRENT = July, 2009;
    %LET WGT = FWRWT;
    %LET NORMWGT = CFWT;
        %LET CATCHNUM=9999;                      /*RSG 02/2005 number of catchment areas **/

    DATA BENCHA01;
        SET BENCH.AC2008DB (RENAME=(BIRTHYY=YOB));
        if product in (7,9) then model=4;
        if product=3 then model=2;                        /*coded according to AC FORMATS.SAS*/
        if product=1 then model=1;
        if product=4 then model=6;
        if product=8 then model=5;
        if product=2 then model=3;
        product=planid;
    if ^(model in (2,4));
    if disp in ('M10','I10')  ;
    if ac45_08 in (1,2) & ac46_08>=0 & ac46_08<=4;   /*02/2006 RSG - REMOVED REQUIREMENT FOR
ADDITIONAL VISIT (ACC22 FIELD)*/
    cessbnch=0;
    if ac46_08>0 then cessbnch=1;


    proc summary nway; class product;
    var cessbnch;
    output out=tbench mean=;
    proc print;
    proc summary;
    var cessbnch;
    output out=tbench mean=;
    proc print;
    data _null_;
    set tbench;
    call symput('CNSLGOAL',cessbnch);
    run;

    %LET NSMKGOAL = 0.88;

    %LET BMIGOAL  = 0.85;

    %INCLUDE "..\..\LoadWeb\LOADCAHQ.INC";

    PROC FORMAT;
    VALUE AGEF
    LOW - 34 = 1
     35 - 49 = 2
     50 - 64 = 3
     65 - HIGH = 4;

    /* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
    LIBNAME LIBRARY '..\..\..\..\2005\Data\fmtlib';

    DATA NORMDATA (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF
                    SM_RATE SM_CESS SM_RTDN SM_CSDN  BMI_DN BMI
                    TOTCON GROUP XSEXA &WGT. age_n MPCSMPL NXNS_COV);
                    /* 05/10/2007 JSO Added NXNS_COV in the keep statement */
    SET INNORM.&DSN_NORM.(DROP=&WGT.); /* 4/4/2006, KRR added drop so CFWT can renamed/used */
    LENGTH AGE_N AGE_GRP TMP_CELL 8.;
```

```
     IF      XREGION=13 THEN XOCONUS=1; /* 08/24/2006, JSO Create XOCONUS for 2005 data */
     ELSE IF XREGION=14 THEN XOCONUS=2;
     ELSE IF XREGION=15 THEN XOCONUS=3;


     TMP_CELL=STRATUM;

     AGE_N = FIELDAGE;

     AGE_GRP = PUT(AGE_N, AGEF.);
     IF AGE_GRP < 4;

     IF SERVAFF = 'A' THEN XSERVAFF = 1;          *Army;
     ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;    *Air Force;
     ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;    *Navy;
     ELSE XSERVAFF = 4;                           *Other/unknown;

     IF XTNEXREG = 1 THEN DO;
        IF XSERVAFF = 1 THEN XSERVREG = 1;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
        ELSE XSERVREG = 4;
     END;

     IF XTNEXREG = 2 THEN DO;
        IF XSERVAFF = 1 THEN XSERVREG = 5;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
        ELSE XSERVREG = 8;
     END;

     IF XTNEXREG = 3 THEN DO;
        IF XSERVAFF = 1 THEN XSERVREG = 9;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
        ELSE XSERVREG = 12;
     END;

     IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
        IF      XOCONUS = 1 THEN XSERVREG = 13;
        ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
        ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
     END;

     IF HP_SMOKH IN (1,2) THEN DO;
        SM_RATE = 0;
        IF HP_SMOKH = 2 THEN SM_RATE=1;
        SM_RTDN=1;
     END;

     if hp_smokh=1 & H05055>0 then do;      /*RSG 02/2006 NEW SMOKING CESSATION FORMULA AS PER
ERIC SCHONE */
        if H05055>1 then sm_cess=1;
        else sm_cess=0;
        sm_csdn=1;
     end;

     IF xbmicat > 0  THEN DO;
         BMI = 0;
         BMI_DN=1;
        IF xbmicat <=3 THEN BMI=1;
     END;

     IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

     ELSE IF XTNEXREG = 4 THEN TOTCON=2;

     IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

     RENAME &NORMWGT = &WGT;

     IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

     IF XTNEXREG = .    THEN DELETE;
```

```
IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;   /*JSO 07/30/2007, Added 9*/

NXNS_COV = XINS_COV;                  /*JSO 04/26/2007 added for reservists logic*/
                                      /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
IF DBENCAT IN('GRD','IGR') AND H05006 = 3 THEN DO;
   NXNS_COV = 3;
   XENR_PCM = .;
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6) AND H05007>=2 THEN DO;
   GROUP=1;
   OUTPUT;
END;

* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM IN (1,2,6) AND H05007>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   XENR_PCM IN (1,2) AND H05007>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;

* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM = 3 AND H05007>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   ((XENR_PCM = 3 AND H05007>=2) OR NXNS_COV IN (3,9)) THEN DO; /*JSO 07/30/2007, Added 9*/
   GROUP=3;
   OUTPUT;
END;

* nonenrollees;
IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
   GROUP=4;                   /*JSO 07/30/2007, Added 9*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR')THEN DO;
   GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;

RUN;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY '..\..\..\Data\afinal\fmtlib';
```

```
      DATA SMOKE (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF TOTCON GROUP
                     SM_RATE SM_CESS SM_RTDN SM_CSDN XSEXA &WGT BMI_DN BMI
                     MPCSMPL NXNS_COV);/* 05/10/2007 JSO Added NXNS_COV in the keep statement
*/
      SET INDAT.&DSN.;
      LENGTH AGE_N AGE_GRP TMP_CELL 8.;

      /* MER 4/20/09 - Restrict dataset to just non-zero V4 weights */
      IF &WGT <= 0 THEN DELETE;

      TMP_CELL=STRATUM;

      AGE_N = FIELDAGE;

      AGE_GRP = PUT(AGE_N, AGEF.);

      IF AGE_GRP < 4;
      IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
         ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
         ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
         ELSE XSERVAFF=4;

      IF XTNEXREG = 1 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 1;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
         ELSE XSERVREG = 4;
      END;

      IF XTNEXREG = 2 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 5;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
         ELSE XSERVREG = 8;
      END;

      IF XTNEXREG = 3 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 9;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
         ELSE XSERVREG = 12;
      END;

      IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
         IF     XOCONUS = 1 THEN XSERVREG = 13;
         ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
         ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
      END;

      IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

      ELSE IF XTNEXREG=4 THEN TOTCON=2;

      IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

      IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

      IF XTNEXREG = . THEN DELETE;

      IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

      NXNS_COV = XINS_COV;                /*JSO 04/26/2007 added for reservists logic*/
                                          /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
      IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
      IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
         NXNS_COV = 3;
         XENR_PCM = .;
      END;

      IF HP_SMKH2 IN (1,2) THEN DO;
         SM_RATE = 0;
         IF HP_SMKH2 = 2 THEN SM_RATE=1;
         SM_RTDN=1;
      END;
```

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```
    if hp_smkh2=1 & H09053>0 then do;      /*RSG 02/2006 NEW SMOKING CESSATION FORMULA AS PER
ERIC SCHONE */
        if H09053>1 then sm_cess=1;
        else sm_cess=0;
        sm_csdn=1;
    end;

    IF xbmicat > 0   THEN DO;
        BMI = 0;
        BMI_DN=1;
        IF xbmicat <=3 THEN BMI=1;
    END;

    * prime enrollees;
    IF NXNS_COV IN (1,2,6) AND H09004>=2 THEN DO;
        GROUP=1;
        OUTPUT;
    END;

    * enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
        XENR_PCM IN (1,2,6) AND H09004>=2 THEN DO;
        GROUP=2;
        OUTPUT;
    END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
        XENR_PCM IN (1,2) AND H09004>=2 THEN DO;
        GROUP=2;
        OUTPUT;
    END;

    * enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
        XENR_PCM = 3 AND H09004>=2 THEN DO;
        GROUP=3;
        OUTPUT;
    END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
        ((XENR_PCM = 3 AND H09004>=2) OR NXNS_COV IN (3,9)) THEN DO; /*JSO 07/30/2007, Added 9*/
        GROUP=3;
        OUTPUT;
    END;

    * nonenrollees;
    IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
        GROUP=4;                      /*JSO 07/30/2007, Added 9*/
        OUTPUT;
    END;

    * active duty;
    IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
        GROUP=5;          /*JSO 07/30/2007, added DBENCAT conditions*/
        OUTPUT;
    END;

    * active duty dependents;
    IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
        GROUP=6;          /*JSO 07/30/2007, added DBENCAT conditions*/
        OUTPUT;
    END;

    * retirees;
    IF XBNFGRP IN (3,4) THEN DO;
        GROUP=7;
        OUTPUT;
    END;

    * all beneficiaries;
    GROUP=8;
    OUTPUT;

    RUN;
```

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```
PROC SORT DATA=SMOKE;
BY TMP_CELL;
PROC SORT DATA=NORMDATA;
BY TMP_CELL;
RUN;


%MACRO A_SUDAAN(TABLEVAR,SMOKE,SMOKEVAR,DEN);

%IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
    %LET ENDNUM=&REGNUM;
    %LET PREF=R;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
    %LET ENDNUM=&CONNUM;
    %LET PREF=M;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
    %LET ENDNUM=&CONNUM;
    %LET PREF=S;
%END;

%ELSE %IF %UPCASE(&TABLEVAR)=TOTCON %THEN %LET PREF=C;

%DO I = 1 %TO 8;

    DATA INDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA MPCSMPL
                   &SMOKEVAR. &DEN. TMP_CELL XTNEXREG);
    SET SMOKE;
    WHERE XSERVREG > 0 AND GROUP=&I. AND &DEN. >= 0;
        %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
            IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;
        %END;
        %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
            IF TOTCON NE 1 THEN DELETE;
        %END;
        %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
            IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
        %END;
    RUN;


     DATA NORMDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA &SMOKEVAR. &DEN.
                     TMP_CELL XTNEXREG MPCSMPL);
         SET NORMDATA;
             WHERE XSERVREG > 0 AND GROUP=&I.;

             %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
                 IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;
             %END;
         %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
             IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
         %END;

          RUN;

         %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                 PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                 WEIGHT &WGT;
                 SETENV DECWIDTH=4;
                 NEST TMP_CELL / missunit;
                 VAR &SMOKEVAR;
                 TABLES AGE_GRP*XSEXA*MPCSMPL*&TABLEVAR.;
                 SUBGROUP AGE_GRP XSEXA MPCSMPL &TABLEVAR.;
                 LEVELS 8 2 2 &ENDNUM.;
                 OUTPUT  SEMEAN MEAN wsum nsum
                         / TABLECELL=DEFAULT REPLACE
                           FILENAME=&PREF.GRP&I.&SMOKE.;
                 RUN;
         %END;
         %ELSE %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                 PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                 WEIGHT &WGT;
                 SETENV DECWIDTH=4;
                 NEST TMP_CELL / missunit;
```

```
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA*MPCSMPL;
                        SUBGROUP AGE_GRP XSEXA MPCSMPL;
                        LEVELS 3 2 2;
                        OUTPUT  SEMEAN MEAN wsum nsum
                                 / TABLECELL=DEFAULT REPLACE
                                     FILENAME=&PREF.GRP&I.&SMOKE.;
                        RUN;
                %END;

        %IF %UPCASE(&SMOKE) NE CS %THEN %DO;

                DATA &PREF.SER_&I.&SMOKE.;
                SET &PREF.GRP&I.&SMOKE.;
                GROUP=&I.;
                IF SEMEAN NE .;
                %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                    KEEP &TABLEVAR. GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
                %END;
                %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                    TOTCON=1;
                    KEEP TOTCON GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
                %END;
                RUN;

                /* CREATE WEIGHTS FROM 2005 DATA*/
                proc summary data=normdat&i. nway;
                    var &WGT;
                    where &den>0;
                    class age_grp xsexa MPCSMPL;
                    output out=norm_&i. sum=normwt;

                    proc sort data=&pref.ser_&i.&smoke.;
                    by age_grp xsexa mpcsmpl;

                    data &pref.ser_&i.&smoke.;
                    merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                    by age_grp xsexa mpcsmpl;
                    if gin;
                    wsum=wsum/normwt;
                    nsum=nsum/normwt;
                    sesq=normwt*semean**2;
                    run;

                    proc summary data=&pref.ser_&i.&smoke. nway;
                    var mean semean sesq wsum nsum;
                    class &tablevar.;
                    weight normwt;
                    output   out=&pref.sert&i.&smoke.   mean(mean   sesq)=   sum(wsum   nsum)=
sumwgt(semean)=;
                    run;

                data &pref.sert&i.&smoke;
                    set &pref.sert&i.&smoke;
                    group=&i.;
                        semean=sqrt(sesq/semean);
                    drop _type_ _freq_;
                run;

                %IF &I. = 1 %THEN %DO;

                    DATA &PREF._&SMOKE.;
                    SET &PREF.SERT&I.&SMOKE.;
                    RUN;
                %END;
                %ELSE %DO;

                    DATA &PREF._&SMOKE.;
                        SET &PREF._&SMOKE. &PREF.SERT&I.&SMOKE.;
                    RUN;

                    PROC SORT DATA=&PREF._&SMOKE.;
                    BY GROUP;
                    RUN;
```

```
                %END;

        %END;
                %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                        WEIGHT &WGT;
                        SETENV DECWIDTH=4;
                        NEST TMP_CELL / missunit;
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA*&TABLEVAR.;
                        SUBGROUP AGE_GRP XSEXA &TABLEVAR.;
                        LEVELS 3 2 &ENDNUM.;
                        OUTPUT  SEMEAN MEAN wsum nsum
                                / TABLECELL=DEFAULT REPLACE
                                    FILENAME=&PREF.GRP&I.&SMOKE.;
                        RUN;
                %END;
                %ELSE %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                        WEIGHT &WGT;
                        SETENV DECWIDTH=4;
                        NEST TMP_CELL / missunit;
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA;
                        SUBGROUP AGE_GRP XSEXA;
                        LEVELS 3 2 ;
                        OUTPUT  SEMEAN MEAN wsum nsum
                                / TABLECELL=DEFAULT REPLACE
                                    FILENAME=&PREF.GRP&I.&SMOKE.;
                        RUN;
                %END;

        %IF %UPCASE(&SMOKE) = CS %THEN %DO;

                DATA &PREF.SER_&I.&SMOKE.;
                SET &PREF.GRP&I.&SMOKE.;
                GROUP=&I.;
                IF SEMEAN NE .;
                %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                    KEEP &TABLEVAR. GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
                %END;
                %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                    TOTCON=1;
                    KEEP TOTCON GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
                %END;
                RUN;

                /* CREATE WEIGHTS FROM 2005 DATA*/
                proc summary data=normdat&i. nway;
                        var &WGT;
                        where &den>0;
                        class age_grp xsexa;
                        output out=norm_&i. sum=normwt;

                        proc sort data=&pref.ser_&i.&smoke.;
                        by age_grp xsexa;

                        data &pref.ser_&i.&smoke.;
                        merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                        by age_grp xsexa;
                        if gin;
                        wsum=wsum/normwt;
                        nsum=nsum/normwt;
                        sesq=normwt*semean**2;
                        run;

                        proc summary data=&pref.ser_&i.&smoke. nway;
                        var mean semean sesq wsum nsum;
                        class &tablevar.;
                        weight normwt;
                        output   out=&pref.sert&i.&smoke.    mean(mean    sesq)=    sum(wsum    nsum)=
sumwgt(semean)=;
                        run;
```

```
        data &pref.sert&i.&smoke;
            set &pref.sert&i.&smoke;
            group=&i.;
                    semean=sqrt(sesq/semean);
            drop _type_ _freq_;
        run;




        %IF &I. = 1 %THEN %DO;

        DATA &PREF._CESS;
        SET &PREF.SERT&I.&SMOKE.;
        RUN;
        %END;
        %ELSE %DO;

        DATA &PREF._CESS;
                SET &PREF._CESS &PREF.SERT&I.&SMOKE.;
            RUN;

        PROC SORT DATA=&PREF._CESS;
        BY GROUP;
        RUN;

        %END;

    %END;
%END;

%MEND;

%A_SUDAAN(XSERVAFF,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVAFF,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVAFF,BM,BMI,BMI_DN);
%A_SUDAAN(XSERVREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVREG,BM,BMI,BMI_DN);
%A_SUDAAN(XTNEXREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XTNEXREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XTNEXREG,BM,BMI,BMI_DN);
%A_SUDAAN(TOTCON,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(TOTCON,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(TOTCON,BM,BMI,BMI_DN);

%MACRO ADDIT(PREF, TYPE);

DATA &PREF._&TYPE;
SET &PREF._&TYPE;
LENGTH BENEFIT $34. BENTYPE $50.;

BENEFIT="Healthy Behaviors";
    %IF &TYPE=RT %THEN %DO;
        BENTYPE="Non-Smoking Rate";
    %END;
    %IF &TYPE=CESS %THEN %DO;
        BENTYPE="Counselled To Quit";
    %END;
    %IF &TYPE = BM %THEN %DO;
        BENTYPE = "Percent Not Obese";
    %END;
RUN;

%MEND;

%ADDIT(C,RT);
%ADDIT(C,CESS);
%ADDIT(C,BM);
%ADDIT(M,RT);
```

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```
%ADDIT(M,CESS);
%ADDIT(M,BM);
%ADDIT(R,RT);
%ADDIT(R,CESS);
%ADDIT(R,BM);
%ADDIT(S,RT);
%ADDIT(S,CESS);
%ADDIT(S,BM);


%MACRO MAKEDATA(PREF, TABLEVAR);
  DATA &PREF._SMOKE;
   SET &PREF._RT
       &PREF._CESS
       &PREF._BM
 ;

    LENGTH MAJGRP $30. REGION REGCAT $25.;

     IF      GROUP=1 THEN MAJGRP="Prime Enrollees           ";
     ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
     ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
     ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
     ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
     ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
     ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
     ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

     %IF &TABLEVAR = XSERVAFF %THEN %DO;
         IF XSERVAFF = 1 THEN REGION = 'ARMY';
         IF XSERVAFF = 2 THEN REGION = 'AIR FORCE';
         IF XSERVAFF = 3 THEN REGION = 'NAVY';
         IF XSERVAFF = 4 THEN REGION = 'OTHER';
     %END;

     %IF &TABLEVAR = XSERVREG %THEN %DO;
            REGION = PUT(XSERVREG,SERVREGO.);  /*JSO 08/24/2006, Create new format for
Overseas*/
     %END;

     %IF &TABLEVAR = XTNEXREG %THEN %DO;
          IF XTNEXREG=1 THEN REGION="NORTH";
         ELSE IF XTNEXREG=2 THEN REGION="SOUTH";
         ELSE IF XTNEXREG=3 THEN REGION="WEST";
         ELSE IF XTNEXREG=4 THEN REGION="OVERSEAS";
     %END;

     %IF &TABLEVAR = TOTCON %THEN %DO;
          REGION = "USA MHS";
     %END;


         REGCAT=REGION;
         DROP GROUP &TABLEVAR;

     IF &TABLEVAR NE 0;

     RUN;


%MEND MAKEDATA;

%MAKEDATA(M,XSERVAFF);
%MAKEDATA(C,TOTCON);
%MAKEDATA(R,XSERVREG);
%MAKEDATA(S,XTNEXREG);


DATA SMOKE;
SET M_SMOKE R_SMOKE S_SMOKE C_SMOKE;
SESQ = SEMEAN**2;
RENAME MEAN=SCORE wsum=n_wgt nsum=n_obs;
RUN;
```

```
/* CALCULATE COMPOSITE SCORE - AVERAGE RATE AND CESSATION*/

PROC SORT DATA=SMOKE;
BY MAJGRP REGION REGCAT;
RUN;

PROC SUMMARY DATA=SMOKE SUM;
BY MAJGRP REGION REGCAT;
VAR SCORE SESQ N_WGT N_OBS;
OUTPUT SUM= OUT=PRECOMP;
RUN;

DATA COMP(RENAME=(S_MEAN=SCORE S_SE=SEMEAN));
SET PRECOMP;
IF _FREQ_ = 3 THEN DO;
   S_MEAN=SCORE/3;
   S_SE=SQRT(SESQ)/3;
   N_OBS=round(N_OBS/3);
END;
ELSE DO;
   S_MEAN=.;
   S_SE=.;
END;
BENTYPE="Composite";
BENEFIT="Healthy Behaviors";
DROP _TYPE_ _FREQ_ SCORE SESQ;
RUN;

PROC SORT DATA=SMOKE;
BY MAJGRP BENTYPE;
RUN;

DATA BENCH;
SET SMOKE;
BY MAJGRP BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
   SCORE=(SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT;
   OUTPUT;
END;
RUN;

PROC SORT DATA=SMOKE;
BY REGION BENTYPE;
RUN;

DATA BENCH2;
SET SMOKE;
```

```
BY REGION BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
   SCORE=(SUM(&CNSLGOAL, &NSMKGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   MAJGRP="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
RUN;

DATA SIG1;
SET SMOKE COMP;
IF BENTYPE='Non-Smoking Rate' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&NSMKGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;

   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &NSMKGOAL THEN SIG = 1;
      ELSE IF SCORE < &NSMKGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Counselled To Quit' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&CNSLGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &CNSLGOAL THEN SIG = 1;
      ELSE IF SCORE < &CNSLGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Percent Not Obese' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&BMIGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &BMIGOAL THEN SIG = 1;
      ELSE IF SCORE < &BMIGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Composite' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3))/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > ((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = 1;
```

```
        ELSE IF SCORE <((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = -1;
    END;
END;

DROP TSTAT PVAL;
RUN;

DATA SMOKE_ALL;
SET SIG1 BENCH BENCH2;
TIMEPD="&CURRENT.";
RUN;

PROC SORT DATA=SMOKE_ALL OUT=OUT.SMOKE;
BY MAJGRP REGION REGCAT BENTYPE;
RUN;
```

```
     *****************************************************************************
     *
     *  Project:   DoD Reporting and Analysis 6077-410
     *  Program:   LOADMPRQ.SAS
     *  Purpose:   Calculate MPR Preventive Care Composites
     *  Date:      4/07/2000
     *  Author:    Chris Rankin
     *
     *  Modified: 1) 05-08-2001 By Keith Rathbun, Added SEMEAN to LOADMPRQ.SD2
     *                to accommodate the Short Reports.  Condensed some code.
     *             2) 07-15-2002 By Mike Scott, Changed PERIOD to = "April, 2001
     *                to March, 2002".
     *             3) 03-21-2003 By Mike Scott, Changed PERIOD to = "January, 2001
     *                to December, 2002".
     *             4) 04-30-2003 By Mike Scott, Changed CMPNUM1 from 4 to 5, and
     *                changed the upper limits of both DO loops from 5 to 6 because
     *                of the addition of Cholesterol Testing.
     *             5) 06-23-2003 By Mike Scott, Changed setting BENTYPE from &PERIOD
     *                to Composite.  Added TIMEPD variable.
     *             6) 06-26-2003 By Mike Scott, Updated for Q2 2003.
     *             7) 10-21-2003 By Mike Scott, Updated for Q3 2003.
     *             8) 01-07-2004 By Mike Scott, Updated for Q4 2003.
     *             9) 03-24-2004 By Mike Scott, Updated for Q1 2004.
     *            10) 06-22-2004 By Regina Gramss, Updated for Q2 2004.
     *            11) 09/2004    By Regina Gramss, Updated for Q3 2004.
     *            12) 01/2005    By Regina Gramss, Replaced XTNEXREG with XSERVREG
     *                to produce "last conus_q" for Q4 2005
     *            13) 12/2005    By Regina Gramss, Updated for Q4 2005.
     *            14) 03/24/2006 By Keith Rathbun, Updated for Q2 FY 2006.
     *                %LET PERIOD = January, 2006 was the only change.
     *            15) 07/12/2006 By Justin Oh, Updated for Q3 FY 2006.
     *            16) 08/24/2006 By Justin Oh, change DO REG = 1 TO 15 from 1 TO 16.
     *            17) 10/04/2006 By Justin Oh, Updated %LET PERIOD.
     *            18) 12/20/2006 By Justin Oh, Updated %LET PERIOD October, 2006.
     *            19) 04/05/2007 By Justin Oh, Updated %LET PERIOD January, 2007.
     *            20) 06/22/2007 By Keith Rathbun, Updated %LET PERIOD April, 2007.
     *            21) 09/04/2007 By Justin Oh, Updated %LET PERIOD July, 2007.
     *            22) 01/10/2008 By Keith Rathbun, Updated %LET PERIOD October, 2007.
     *            23) 04/11/2008 By Justin Oh, Updated %LET PERIOD January, 2008.
     *            24) 06/13/2008 By Keith Rathbun, Updated %LET PERIOD April, 2008.
     *            25) 01/06/2009 By Mike Rudacille, Updated %LET PERIOD October, 2008.
     *            26) 01/16/2009 By Mike Rudacille, Changed CONUS variable to USA.
     *            27) 03/11/2009 By Keith Rathbun, Updated %LET PERIOD January, 2009.
     *            28) 06/22/2009 By Keith Rathbun, Updated %LET PERIOD April, 2009.
     *            29) 09/30/2009 By Mike Rudacille, Updated %LET PERIOD July, 2009.
     *
     *    Input:    1) RFINAL.sas7bdat
     *              2) CFINAL.sas7bdat
     *              3) MFINAL.sas7bdat
     *              4) SFINAL.sas7bdat
     *              5) SMOKE.sas7bdat
     *
     *    Output:   loadmprq.sas7bdat
     *
     *    Note:     ***CHECK COMPNUM AND CMPNUM1 ASSIGNMENTS AND UPPER LIMIT OF DO LOOPS***
     *
     *****************************************************************************;

     OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2;

     LIBNAME INLIB   ".";
     LIBNAME OUT     ".";
     LIBNAME LIBRARY "..\..\..\Data\Afinal\fmtlib";

     %LET CMPNUM1=4; /*** number of questions in first composite ***/ /*RSG 04/2005 Changed 5 to
4*/

     %LET PERIOD = July, 2009;
     %INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";
```

```
           **************************************************************;
           *** Note -- take out access to care questions and composite ***;
           **************************************************************;

        data mfinal(keep=cpbmk1 compress=no);
          set inlib.mfinal(keep=majgrp cpbmk1) INLIB.CFINAL (KEEP=MAJGRP CPBMK1);
          where majgrp="All Beneficiaries";    /*RSG 02/2005 Include CONUS MHS data*/
        run;

        data mfinal;
          if _n_=1 then set mfinal;
          set inlib.mfinal(drop=cpbmk1) INLIB.CFINAL(DROP=CPBMK1) ;
        run;

        proc sort data=mfinal;          /*RSG 01/2005 - Added code to select only 1 record per majgrp
*/
        by majgrp;                        /*using xservreg, there are now 4 conus areas which caused
duplicate benchmark calcs */
        data mfinal;
        set mfinal;
        by majgrp;
        if first.majgrp;
        run;

        ************************;
        ***** Benchmarks      **;
        ************************;

        DATA BENCHMKS(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SIG);
            FORMAT   MAJGRP  $30. REGION  $25. REGCAT  $26.    /** RSG 01/2005 Increase region
format to accommodate service affiliation **/
                     BENEFIT $34. BENTYPE $50. TIMEPD $35.;   ***MJS 06/23/03 Added TIMEPD;
          SET MFINAL;

          ARRAY BENCHMK{*} GOALVAR1-GOALVAR&CMPNUM1 CPBMK1;
          DO I = 1 TO 5;   ***RSG 04/2005 Changed 6 to 5;
             SCORE   = BENCHMK{I}*100;
             SIG     = .;
             REGION  = "Benchmark";
             REGCAT  = "Benchmark";
             BENEFIT = "Preventive Care";
             IF     I = 1 THEN BENTYPE = "Prenatal Care";
             ELSE IF I = 2 THEN BENTYPE = "Mammography";
             ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
             ELSE IF I = 4 THEN BENTYPE = "Hypertension";
             /*RSG 04/2005 DELETED CHOLESTEROL*/
             ELSE IF I = 5 THEN  BENTYPE = "Composite";    ***MJS 06/23/03 Changed &PERIOD to
Composite;
             TIMEPD = "&PERIOD";   ***MJS 06/23/03 Added line;
             OUTPUT;
          END;
          DROP I;
        RUN;

        DATA BENCHMKS;
          SET BENCHMKS;
          OUTPUT;
          IF MAJGRP = "All Beneficiaries" THEN DO;
             DO REG = 1 TO 15; DROP REG; /*JSO 08/24/2006, Changed Regions, 16 to 15*/
                  MAJGRP = "Benchmark";
                  REGION = PUT(REG,SERVREGO.);
                  REGCAT = PUT(REG,SERVREGO.);
                  OUTPUT;
             END;
             DO SERV = 1 TO 4; DROP SERV;
                  MAJGRP = "Benchmark";
                  REGION = PUT(SERV,XSERVAFF.);
                  REGCAT = PUT(SERV,XSERVAFF.);
                  OUTPUT;
             END;

             MAJGRP = "Benchmark";
             REGION = 'USA MHS';
             REGCAT = 'USA MHS';
```

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```
         OUTPUT;
         MAJGRP = "Benchmark";
         REGION = 'NORTH';
         REGCAT = 'NORTH';
         OUTPUT;
         MAJGRP = "Benchmark";
         REGION = 'SOUTH';
         REGCAT = 'SOUTH';
         OUTPUT;
         MAJGRP = "Benchmark";
         REGION = 'WEST';
         REGCAT = 'WEST';
         OUTPUT;
         MAJGRP = "Benchmark";
         REGION = 'OVERSEAS';
         REGCAT = 'OVERSEAS';
         OUTPUT;
       END;
     RUN;

     PROC FREQ DATA=BENCHMKS;
        TABLES MAJGRP/MISSING LIST;
     RUN;

     ************************;
     *****  Scores        **;
     ************************;

     DATA SCORES(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG N_OBS N_WGT);
         FORMAT MAJGRP  $30. REGION  $25. REGCAT  $26.    /** RSG 01/2005 Increase region format
to accommodate service affiliation **/
               BENEFIT $34. BENTYPE $50. TIMEPD $35.;   ***MJS 06/23/03 Added TIMEPD;
       SET INLIB.MFINAL INLIB.CFINAL
           INLIB.RFINAL INLIB.SFINAL;


       ARRAY SEMEANS{*} SERRV1-SERRV&CMPNUM1.  CP1SE ;
       ARRAY  SCORES{*} SCORV1-SCORV&CMPNUM1.  CSCOR1;
       ARRAY  SIGNIF{*} SIGV1-SIGV&CMPNUM1.    CPSIG1;
       ARRAY   NOBS {*} NOBSV1-NOBSV&CMPNUM1.  CPOBS1;
       ARRAY   NWGT {*} DENV1-DENV&CMPNUM1     CPDEN1;

       DO I = 1 TO 5;   ***RSG 04/2005 Changed 6 to 5;
          SCORE  = SCORES{I};
          SEMEAN = SEMEANS{I};
          SIG    = SIGNIF{I};
          N_OBS  = NOBS{I};
          N_WGT  = NWGT{I};
          BENEFIT = "Preventive Care";
          IF     I = 1 THEN BENTYPE = "Prenatal Care";
          ELSE IF I = 2 THEN BENTYPE = "Mammography";
          ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
          ELSE IF I = 4 THEN BENTYPE = "Hypertension";
          /*RSG 04/2005 DELETED CHOLESTEROL*/
          ELSE IF I = 5 THEN  BENTYPE = "Composite";    ***MJS 06/23/03 Changed &PERIOD to
Composite;
          TIMEPD = "&PERIOD";   ***MJS 06/23/03 Added line;
          OUTPUT;
       END;
     RUN;

     DATA LOADMPRQ (KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG
                         N_OBS N_WGT);
     SET BENCHMKS SCORES INLIB.SMOKE;
     RUN;

     PROC SORT DATA=LOADMPRQ OUT=OUT.LOADMPRQ;
     BY MAJGRP REGION;
     RUN;
```

```
    *****************************************************************************
    * PROJECT:  DOD Quarterly Survey, Consumer Reports (6077-410)
    * PROGRAM:  FAKEQ.SAS
    * PURPOSE:  Generate Fake Data for Report Cards
    * AUTHOR:   Mark A. Brinkley
    *
    * MODIFIED: 1) July 2000 By Eric Schone to utilize CACRPT and CATREP
    *              include files.
    *           2) February 2001 By Keith Rathbun - More updates for
    *              Quarterly report card format.  Made FAKE datastep into
    *              a macro to handle multiple quarters.  Added QTR and
    *              PERIOD parameters.
    *           3) July 2001 By Mark Brinkley - Updated for
    *              Quarterly 2 reports
    *           4) April 2002 By Keith Rathbun - Updated DSN and %LET
    *              statements for 2002 reports and added TREND records.
    *              Removed Flu Shot.
    *           5) July 2002 By Mike Scott - Updated DSN and %LET statements
    *              for Q2 2002 reports.
    *           6) March 2003 By Mike Scott - Updated for 2003 survey.
    *           7) June 2003 By Mike Scott - Added TIMEPD variable to be set to the period
    *              or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
    *              setting to 'Composite'.  Updated for Q2 2003.
    *           8) July 2003 BY Mike Scott - Above for K=7 through 10 in loop DO K=0 TO 11.
    *              Added LOADCAHQ.INC.
    *           9) October 2003 By Mike Scott - Updated for Q3 2003.
    *          10) January 2004 By Mike Scott - Updated for Q4 2003.
    *          11) March 2004 By Mike Scott - Updated for Q1 2004.
    *          12) June 2004 By Regina Gramss - Updated for Q2 2004.
    *          13) September 2004 By Regina Gramss - Updated for Q3 2004, to use XTNEXREG vs
XREGION
    *          14) January 2005 By Regina Gramss - Prepare "Last Conus_q" for Q4 2005
    *              replace XTNEXREG with XSERVREG
    *          15) April 2005 By Regina Gramss - Update for Q1 2005, delete cholesterol
    *              bentype and include Healthy Behaviors composite and BMI bentype.
    *          16) July 2005 By Regina Gramss - Update for Q2 2005.
    *          17) October 2005 By Regina Gramss - Updated for Q3 2005
    *          18) December 2005 By Regina Gramss - Updated for Q4 2005
    *          19) March 2006 By Keith Rathbun - Updated for Q2 FY 2006
    *          20) July 2006 By Justin Oh - Updated for Q3 FY 2006
    *          21) 08/22/2006 By Justin Oh - Changed XSERVREG for Overseas
    *          22) 10/03/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS063_1 to HCS064_1 for Q4FY2006 reports.
    *          23) 02/02/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS064_1 to HCS071_1 for Q4FY2006 reports.
    *          24) 04/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS071_1 to HCS072_1 for Q4FY2006 reports.
    *          25) 06/22/2007 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS072_1 to HCS073_1 for Q3FY2007 reports.
    *          26) 09/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS073_1 to HCS074_1 for Q4FY2007 reports.
    *          27) 01/10/2008 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS074_1 to HCS081_1 for Q1FY2008 reports.
    *          28) 04/11/2008 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS081_1 to HCS082_1 for Q2FY2008 reports.
    *          29) 06/13/2008 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS082_1 to HCS083_1 for Q3FY2008 reports.
    *          30) 10/02/2008 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS083_1 to HCS084_1 for Q4FY2008 reports.
    *          31) 01/06/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS084_1 to HCS091_1 for Q1FY2009 reports.
    *          32) 01/16/2009 By Mike Rudacille - Changed CONUS to USA.
    *          33) 03/11/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS091_1 to HCS092_1 for Q2FY2009 reports.
    *          34) 04/11/2009 By Mike Rudacille - Updated composite definitions
    *              to reflect modifications to beneficiary reports necessary for V4
    *          35) 06/22/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS092_1 to HCS093_1 for Q3FY2009 reports.
    *          36) 09/30/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
    *              Changed input data HCS093_1 to HCS094_1 for Q4FY2009 reports.
```

```
*
* INCLUDES: 1) CACRPT.INC - Report Card Catchment Definitions
*           2) CATREP.INC - Report Card Catchment Format Defns
*
****************************************************************************;
%LET NUMQTR = 5;   ***MJS 06/18/03 Changed 4 to 5;

%LET PERIOD1 = October, 2008;
%LET PERIOD2 = January, 2009;
%LET PERIOD3 = April, 2009;
%LET PERIOD4 = July, 2009;

%LET PERIOD5 = Trend;   ***MJS 06/18/03 Added line;

%INCLUDE "LOADCAHQ.INC";   ***MJS 07/07/03 Added;

LIBNAME OUT       ".";
LIBNAME IN        "..\..\Data\AFinal";
LIBNAME LIBRARY   "..\..\Data\AFinal\fmtlib";

OPTIONS COMPRESS=YES NOFMTERR;

****************************************************************************
* CREATE TEMPORARY DATASET FOR RECODING CACSMPL TO BE COLLAPSED FOR
* REPORT CARD PURPOSES
* FOR QUARTERLY REPORTS CATCHMENT LEVEL REPORTING IS NOT DONE
* AND THEREFORE THE VALUE OF CELLP IS SET TO 1
* FOR ANNUAL REPORTING PURPOSES
* CELLP WILL NEED TO BE ASSIGNED TO GEOCELL (KEEP GEOCELL ON INPUT)
****************************************************************************;

DATA TEMP;
  SET IN.HCS094_1;
   CELLP=1;
   ****************************************************************************
   * CODE FOR XSERVREG FROM XTNEXREG
   ****************************************************************************;
    IF SERVAFF='A' THEN XSERVAFF=1;               *Army;
       ELSE IF SERVAFF='F' THEN XSERVAFF=2;       *Air Force;
       ELSE IF SERVAFF='N' THEN XSERVAFF=3;       *Navy;
       ELSE XSERVAFF=4;


    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
      ELSE XSERVREG = 4;
    END;

    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 5;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
      ELSE XSERVREG = 8;
    END;

    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 9;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
      ELSE XSERVREG = 12;
    END;


    IF XTNEXREG = . THEN DELETE;

RUN;

proc freq;
table xservreg*cacsmpl/ noprint out=temp;
run;

data temp2;
```

```
      length cafmt $26;
      set temp end=last;
      by xservreg;
        caf=0;
      where cacsmpl ne 9999;
         if first.xservreg then do; /* took out condition for xregion= 8 since useing xservreg now
*/
           cafmt=put(xservreg,servregf.);
           output;
         end;
         cafmt=put(cacsmpl,catrep.);
         caf=1;
         if count>60 & cafmt ne 'INV' then output;
         if last then do;
           xservreg=0;
           caf=0;
           cafmt='Benchmark';
          output;
                   /** RSG 01/2005 Add in codes for service affiliation categories **/


          caf=1;

          xservreg=13;
          cafmt='Overseas Europe';
          output;
         xservreg=14;
          cafmt='Overseas Pacific';
          output;
         xservreg=15;
          cafmt='Overseas Latin America';
          output;
        xservreg=16;
          cafmt = 'ARMY';
          output;
          xservreg=17;
          cafmt = 'AIR FORCE';
          output;
          xservreg=18;
          cafmt = 'NAVY';
          output;
          xservreg=19;
          cafmt = 'OTHER';
          output;
          xservreg=20;
          cafmt = 'NORTH';
          output;
          xservreg=21;
          cafmt = 'SOUTH';
          output;
          xservreg=22;
          cafmt = 'WEST';
          output;
          xservreg=23;
          cafmt = 'OVERSEAS';
          output;
          xservreg=24;
          cafmt = 'USA MHS';
          output;
          xservreg=25;
          cafmt = 'Europe Army';
          output;
          xservreg=26;
          cafmt = 'Europe Air Force';
          output;
          xservreg=27;
          cafmt = 'Europe Navy';
          output;
          xservreg=28;
          cafmt = 'Europe Other';
          output;
          xservreg=29;
          cafmt = 'Pacific Army';
```

```
      output;
      xservreg=30;
      cafmt = 'Pacific Air Force';
      output;
      xservreg=31;
      cafmt = 'Pacific Navy';
      output;
      xservreg=32;
      cafmt = 'Pacific Other';
      output;
      xservreg=33;
      cafmt = 'Latin America Army';
      output;
      xservreg=34;
      cafmt = 'Latin America Force';
      output;
      xservreg=35;
      cafmt = 'Latin America Navy';
      output;
      xservreg=36;
      cafmt = 'Latin America Other';
      output;
    end;
run;

/*RSG 04/2005 order region groups the way it should appear in reports*/
data temp3 (rename=(temp_r=xservreg));
    set temp2;
if      xservreg=0  then temp_r=1;
else if xservreg=24 then temp_r=2;
else if xservreg=16 then temp_r=3;
else if xservreg=18 then temp_r=4;
else if xservreg=17 then temp_r=5;
else if xservreg=19 then temp_r=6;
else if xservreg=20 then temp_r=7;
else if xservreg=1  then temp_r=8;
else if xservreg=3  then temp_r=9;
else if xservreg=2  then temp_r=10;
else if xservreg=4  then temp_r=11;
else if xservreg=21 then temp_r=12;
else if xservreg=5  then temp_r=13;
else if xservreg=7  then temp_r=14;
else if xservreg=6  then temp_r=15;
else if xservreg=8  then temp_r=16;
else if xservreg=22 then temp_r=17;
else if xservreg=9  then temp_r=18;
else if xservreg=11 then temp_r=19;
else if xservreg=10 then temp_r=20;
else if xservreg=12 then temp_r=21;
else if xservreg=23 then temp_r=22;
else if xservreg=13 then temp_r=23;
else if xservreg=14 then temp_r=24;
else if xservreg=25 then temp_r=25;
else if xservreg=26 then temp_r=26;
else if xservreg=27 then temp_r=27;
else if xservreg=28 then temp_r=28;
else if xservreg=29 then temp_r=29;
else if xservreg=30 then temp_r=30;
else if xservreg=31 then temp_r=31;
else if xservreg=32 then temp_r=32;
else if xservreg=33 then temp_r=33;
else if xservreg=34 then temp_r=34;
else if xservreg=35 then temp_r=35;
else if xservreg=36 then temp_r=36;
drop xservreg;
run;

proc sort;
by xservreg caf cafmt;
run;

data temp4;
set temp3 end=last;
```

```
       start=_n_;
       label=cafmt;
       type='N';
       fmtname='ROWMAT';
       if last then call symput('x',_n_);

       run;

       proc format cntlin=temp4;

       proc print data=temp4;
       run;

       %MACRO FAKE;
       DATA FAKE;

          KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD I K;   ***MJS 06/18/03 Added TIMEPD;

          LENGTH MAJGRP  $ 30
                 REGION  $ 25    /*RSG 01/2005 lengthen format to fit service affiliation*/
                 REGCAT  $ 26
                 BENTYPE $ 50
                 TIMEPD  $ 35;   ***MJS 06/18/03 Added TIMEPD;



          DO I=1 TO 8;            ** 8 Major groups **;

             MAJGRP=PUT(I,MAJOR.);

             DO J=1 TO &x;        ** Region/catchment **;

             REGCAT=PUT(J,ROWMAT.);
             RETAIN REGION;

             **RSG 01/2005 Change code to fit XSERVREG values**;
             IF SUBSTR(REGCAT,1,8) IN ('Benchmar','Overseas','OVERSEAS') OR
               SUBSTR(REGCAT,1,5)            IN           ('Pacif','Europ','Latin','North','South','West
       ','NORTH','SOUTH','WEST') OR
                    REGCAT IN ('ARMY','AIR FORCE','NAVY','OTHER','USA MHS') THEN REGION=REGCAT;


               DO K=1 TO 11;      ** 11 Benefits **;  /*** 04-11-09 MER ***/

                  BENEFIT=PUT(K,BEN.);

                  IF K=1 THEN DO;
                     DO L=1 TO 3;                   ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,GETNCARE.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***MJS 06/18/03 Moved loop inside L loop and
       changed BENTYPE to TIMEPD;
                             TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                     END;
                  END;
                  ELSE IF K=2 THEN DO;
                     DO L=1 TO 3;                   ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,GETCAREQ.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***MJS 06/18/03 Moved loop inside L loop and
       changed BENTYPE to TIMEPD;
                             TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                     END;
                  END;
                  ELSE IF K=3 THEN DO;
                     DO L=1 TO 5;                   ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,HOWWELL.);    ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***MJS 06/18/03 Moved loop inside L loop and
       changed BENTYPE to TIMEPD;
                             TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                     END;
                  END;
                  ELSE IF K=4 THEN DO;
```

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```
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,CUSTSERV.);    ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;     ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=5 THEN DO;
              DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,CLMSPROC.);    ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;     ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
          END;
          ELSE IF K=6 THEN DO;
              %DO Q = 1 %TO &NUMQTR;
                  BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                  TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
              %END;                              ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
          END;
          ELSE IF K=7 THEN DO;
              %DO Q = 1 %TO &NUMQTR;
                  BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                  TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
              %END;                              ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
          END;
          ELSE IF K=8 THEN DO;
              %DO Q = 1 %TO &NUMQTR;
                  BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                  TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
              %END;                              ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
          END;
          ELSE IF K=9 THEN DO;
              %DO Q = 1 %TO &NUMQTR;
                  BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                  TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
              %END;                              ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
          END;
          ELSE IF K=10 THEN DO;
              DO L=1 TO 5;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                  BENTYPE=PUT(L,PREVCARE.);    ***that replaced BENTYPE hard assignment;
                  %DO Q = 1 %TO &NUMQTR;     ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                  %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
              END;
      END;
          ELSE IF K=11 THEN DO;             ***RSG 02/2005 Added for smoking scores.;
              DO M=1 TO 4;
                  BENTYPE=PUT(M,SMOKEF.);
                  %DO Q = 1 %TO &NUMQTR;
                      TIMEPD = "&&PERIOD&Q"; OUTPUT;
                  %END;
              END;
          END;
        END;
      END;
    END;
  RUN;
  %MEND FAKE;
  %FAKE;
```

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```
/*** 12-13 MAB ***/
/*** Since quarterly files won't have catchment level data then delete ***/
DATA FAKE;
  SET FAKE;
  IF REGION=REGCAT;
RUN;

/*** 12-13 MAB ***/
/*** Need to create single benchmarks for ALL major groups ***/
DATA EXTRA;
  SET FAKE;
  IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
  MAJGRP="Benchmark";
RUN;
/*** Combine extra data with fake ***/
DATA FAKE;
  SET EXTRA FAKE;
RUN;

/*** Need to clean up data ***/
DATA OUT.FAKEQ;
  SET FAKE;

  /*** Need to set oddball records to missing ***/
  IF REGION="Benchmark" THEN SIG=.;
  if region=''|compress(regcat)='.' then delete;

  /*** Don't populate catchment areas for 4 major groups ***/
  *IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;          /*** 12-13 MAB ***/

  DROP I K;

RUN;


PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG;   ***MJS 07/21/03 Added TIMEPD;
RUN;


ENDSAS;
```

```
*****************************************************************************
*
* PROGRAM:  MERGFINQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6077-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKEQ.SD2.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from MERGFINL.SAS.
*
* INPUTS:    1) MPR and CAHPS Individual and Composite data sets with adjusted
*               scores, and benchmark data for quarterly DoD HCS.
*               - LOADMPRQ.SD2 - MPR Scores Database
*               - LOADCAHQ.SD2 - CAHPS Scores Database
*               - BENCHA04.SD2 - CAHPS Benchmark Database
*               - FAKEQ.SD2    - WEB Layout in Column order
*
* OUTPUT:    1) MERGFINQ.SD2 - Combined Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*               and composite data sets
*
* MODIFIED: 1) 07/15/2002 by Mike Scott: Updated libnames for Q2 2002.
*           2) 03/21/2003 by Mike Scott: Updated for 2003 survey.
*           3) 07/09/2003 by Mike Scott: Updated for Q2 2003.  Added TIMEPD to KEYs.
*           4) 07/23/2003 by Mike Scott: Added TIMEPD to FREQs and PRINT.
*           5) 10/21/2003 by Mike Scott: Updated for Q3 2003.
*           6) 01/07/2004 by Mike Scott: Updated for Q4 2003.
*           7) 03/24/2004 by Mike Scott: Updated for Q1 2004.
*           8) 06/22/2004 by Regina Gramss: Updated for Q2 2004.
*           9) 09/2004    by Regina Gramss: Updated for Q3 2004, Use XTNEXREG vs XREGION
*          10) 01/2005    by Regina Gramss: Changed XTNEXREG to XSERVREG to compile
*               "Last conus_q" for Q4 2005
*          11) 04/2005    by Regina Gramss: Updated for Q1 2005
*          12) 07/2005    by Regina Gramss: updated for Q2 2005
*          13) 10/2005    by Regina Gramss: Updated for Q3 2005
*          14) 12/2005    by Regina Gramss: Updated for Q4 2005
*          15) 07/2006    by Justin Oh: Updated for Q3 FY 2006
*          16) 08/22/2006 by Justin Oh: Change DO REG = 1 TO 15 from 1 TO 16
*          17) 10/03/2006 by Justin Oh - Changed libname in2 and in3 for Q4FY2006.
*          18) 12/20/2006 by Justin Oh - Changed libname in2 and in3 for Q1FY2007.
*          19) 04/05/2007 by Justin Oh - Changed libname in2 and in3 for Q2FY2007.
*          20) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
*               ReportCards OR PurchasedReportCards.
*          21) 04/05/2007 by Justin Oh - Added %LET BCHTYPE to select BCH types
*               Benchmark OR PurchasedBenchmark.
*          22) 09/05/2007 by Justin Oh - Changed libname in2 and in3 for Q4FY2007.
*          23) 01/10/2008 by Keith Rathbun - Changed libname in2 and in3 for Q1FY2008.
*          24) 04/11/2008 by Justin Oh - Changed libname in2 and in3 for Q2FY2008.
*          25) 06/13/2008 by Keith Rathbun - Changed libname in2 and in3 for Q3FY2008.
*          26) 10/02/2008 by Mike Rudacille - Changed libname in2 and in3 for Q4FY2008.
*          27) 01/06/2009 by Mike Rudacille - Changed libname in2 and in3 for Q1FY2009.
*          28) 01/16/2009 by Mike Rudacille - Changed CONUS to USA.
*          29) 03/11/2009 by Keith Rathbun - Changed libname in2 and in3 for Q2FY2009.
*          30) 06/23/2009 by Keith Rathbun - Changed libname in2 and in3 for Q3FY2009.
*          31) 09/30/2009 by Mike Rudacille - Changed libname in2 and in3 for Q4FY2009.
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS      - Recode questions and generate CAHPS group files
*    - STEP2Q.SAS      - Calculate CAHPS individual adjusted scores for groups 1-7
*    - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*    - PRVCOMPQ.SAS    - Calculate MPR individual and composite scores
*    - BENCHA01-04.SAS - Convert Benchmark Scores into WEB layout
*    - LOADCAHQ.SAS    - Convert Quarterly CAHPS Scores Database into WEB layout
*    - LOADMPRQ.SAS    - Convert Quarterly MPR Scores Database into WEB layout
*
* 2) The output file (MERGFINQ.SD2) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
```

```
         ****************************************************************************
         * Assign data libraries and options
         ****************************************************************************;

         /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards              ***/
         %LET RCTYPE = ReportCards;

         /*** SELECT PROGRAM - Benchmark OR PurchasedBenchmark                  ***/
         %LET BCHTYPE = Benchmark;

         LIBNAME IN1   ".";
         LIBNAME IN2   "CAHPS_ADULTQ4FY2009\Data";
         LIBNAME IN3   "..\&RCTYPE\MPR_AdultQ4FY2009";
         LIBNAME IN4   "..\&BCHTYPE\Data";
         LIBNAME OUT   ".";
         LIBNAME LIBRARY   "..\..\DATA\AFINAL\FMTLIB";

         OPTIONS PS=79 LS=232 COMPRESS=YES NOCENTER;   ***MJS 07/23/03 Changed LS from 132;

         %INCLUDE "LOADCAHQ.INC";

         ****************************************************************************
         * Construct ORDERing variable from WEB layout
         ****************************************************************************;
         DATA ORDER;
            SET IN1.FAKEQ;
            ORDER = _N_;
            LENGTH KEY $200;
            KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                  UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                  UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added TIMEPD;
            KEEP KEY ORDER;
         RUN;

         PROC SORT DATA=ORDER; BY KEY; RUN;

         ****************************************************************************
         * Merge the Scores Databases
         ****************************************************************************;
         DATA MERGFINQ;
            SET IN2.LOADCAHQ(IN=INCAHPQ)
                IN3.LOADMPRQ(IN=INMPRQ )
                IN4.BENCHA04(IN=INBENQ );
            SVCAHPQ = INCAHPQ;
            SVMPRQ  = INMPRQ;
            SVBENQ  = INBENQ;
            LENGTH KEY $200;
            KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                  UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                  UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added TIMEPD;
            KEYLEN=LENGTH(KEY);
            KEYTEST=LENGTH(BENEFIT)+LENGTH(BENTYPE)+LENGTH(MAJGRP)+LENGTH(REGION)+LENGTH(TIMEPD);
            OUTPUT;
            IF INBENQ THEN DO;
               IF MAJGRP = "All Beneficiaries" THEN DO;
                  DO REG = 1 TO 24; DROP REG;  /*JSO 08/24/2006, Changed Regions, 16 to 24*/
                        MAJGRP = "Benchmark";
                        REGION = PUT(REG,SERVREGF.);
                        REGCAT = PUT(REG,SERVREGF.);
                        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added
         TIMEPD;
                        OUTPUT;
                  END;
                  DO SERV = 1 TO 4; DROP SERV;                         ****RSG 02/2005 Add in
         serv affiliation;
                        MAJGRP = "Benchmark";
                        REGION = PUT(SERV,XSERVAFF.);
                        REGCAT = PUT(SERV,XSERVAFF.);
                        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
                        OUTPUT;
```

```
        END;

    MAJGRP = "Benchmark";
    REGION = 'NORTH';
    REGCAT = 'NORTH';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

    MAJGRP = "Benchmark";
    REGION = 'Overseas Europe';
    REGCAT = 'Overseas Europe';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

    MAJGRP = "Benchmark";
    REGION = 'Overseas Pacific';
    REGCAT = 'Overseas Pacific';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

    MAJGRP = "Benchmark";
    REGION = 'Overseas Latin America';
    REGCAT = 'Overseas Latin America';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

    MAJGRP = "Benchmark";
    REGION = 'SOUTH';
    REGCAT = 'SOUTH';
    KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

        MAJGRP = "Benchmark";
        REGION = 'WEST';
        REGCAT = 'WEST';
    KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

        MAJGRP = "Benchmark";
        REGION = 'OVERSEAS';
        REGCAT = 'OVERSEAS';
    KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

        MAJGRP = "Benchmark";
        REGION = 'USA MHS';
        REGCAT = 'USA MHS';
    KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

    END;
  END;
  IF SCORE = . THEN DELETE;

RUN;


PROC SORT DATA=MERGFINQ; BY KEY; RUN;
```

```
****************************************************************************
* Append ORDERing variable to the merged Scores database file
****************************************************************************;
DATA MERGFINQ MISSING;
   MERGE MERGFINQ(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHPQ = 1 THEN SOURCE = "CAHPS     ";
   IF SVMPRQ  = 1 THEN SOURCE = "MPR       ";
   IF SVBENQ  = 1 THEN SOURCE = "BENCHMARK ";

   IF IN1 AND NOT IN2 THEN OUTPUT MISSING; *Missing from layout;
   IF IN1 THEN OUTPUT MERGFINQ;
RUN;

****************************************************************************
* Reorder file according to WEB layout
****************************************************************************;
PROC SORT DATA=MERGFINQ OUT=OUT.MERGFINQ; BY ORDER; RUN;

DATA FAKEQ;
   SET IN1.FAKEQ;
   ORDER = _N_;
RUN;

DATA LAYONLY;
   MERGE FAKEQ(IN=IN1) OUT.MERGFINQ(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: MERGFINQ.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINQ.sas7bdat - Merged Final Scores Database for input to
MAKEHTML.SAS";

TITLE5 "MERGFINQ.sas7bdat Data source counts";
PROC FREQ DATA=OUT.MERGFINQ;
TABLES SOURCE FLAG SVCAHPQ SVMPRQ SVBENQ
                   SVCAHPQ*SVMPRQ*SVBENQ
     /MISSING LIST;
RUN;

TITLE5 "MERGFINQ.sas7bdat Data attribute counts";
PROC FREQ DATA=OUT.MERGFINQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/23/03 Added TIMEPD*/
       REGION*REGCAT
       /MISSING LIST;
RUN;

TITLE5 "LAYONLY Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/23/03 Added TIMEPD*/
       REGION*REGCAT
       /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKEQ.sas7bdat)";
PROC PRINT DATA=MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD;   ***MJS 07/23/03 Added TIMEPD;
RUN;
```

```
        ******************************************************************************
        *
        *  PROGRAM:  CONUS_Q.SAS
        *  TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6077-410)
        *  PURPOSE:  Generate CAHPS CONUS scores and perform significance tests.
        *
        *  WRITTEN:  11/13/2000 BY KEITH RATHBUN, Adapted from CONUS_A.SAS.
        *            Merged SIGNIF_A.SAS funtionality.
        *
        *  MODIFIED: 1) 04/10/2002 BY KEITH RATHBUN, Update for 2002 survey:
        *               changed code to process 4 rolling quarters.
        *            2) 04/30/2002 By Eric Schone, to calculate & test trend.
        *            3) 07/17/2002 BY MIKE SCOTT, Updated %LET statements for
        *               Q2 2002.
        *            4) 03/21/2003 BY MIKE SCOTT, Updated for 2003 survey.
        *            5) 07/08/2003 BY MIKE SCOTT, Updated for Q2 2003.  Changed BENTYPE="&PERIOD4"
        *               to BENTYPE="Composite".  Added TIMEPD to KEY and FREQ.
        *            6) 07/23/2003 BY MIKE SCOTT, Added TIMEPD constraint to DATA LASTQTR.
        *            7) 10/21/2003 BY MIKE SCOTT, Updated for Q3 2003.
        *            8) 01/07/2004 BY MIKE SCOTT, Updated for Q4 2003.
        *            9) 01/28/2004 BY MIKE SCOTT, Updated LSTCONUS to point to Q3_2003t.
        *            10) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
        *            11) 06/22/2004 BY REGINA GRAMSS, Updated for Q2 2004, Added conditions
        *                to avoid error messages in data sigtest2 step (ensure degree of freedom
        *                is not zero for the probt function) and data trend steps (ensure division
        *                by zero is not taking place).
        *            12) 09/2004 BY REGINA GRAMSS, Updated for Q3, 2004.  Added in codes
        *                for trend calculations (per Eric Schone). Revised to use XTNEXREG.
        *            13) 01/2005 BY REGINA GRAMSS, Changed codes for XTNEXREG to XSERVREG
        *                to incorporate service affiliation into regions.  Change
        *                adjustments made to trend calculation to what was previous.
        *            14) 06/2005 BY REGINA GRAMSS, Included relevant codes from TOTAL_Q.SAS
        *                to consolidate both programs into one.  TOTAL_Q.SAS will no longer
        *                be used. Also put in codes to set trend score to missing if any of the
        *                previous scores are missing.
        *            15) 10/2005 BY REGINA GRAMSS, Updated for Q3 2005
        *            16) 12/2005 BY REGINA GRAMSS, Updated for Q4 2005
        *            17) 07/2006 BY Justin Oh, Updated for Q3 FY 2006
        *            18) 10/03/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            19) 12/20/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            20) 02/02/2007 By Justin Oh - Added "s" to Healthy Behaviors.
        *            21) 02/16/2007 By Justin Oh - Added if statement to change BENEFIT
        *                "Heathly Behavior" to Healthy "Behaviors" for the Last CONUS_Q.SD2 data
        *            22) 04/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            23) 04/05/2007 by Justin Oh - Added %LET BCHTYPE to select BCH types
        *                Benchmark OR PurchasedBenchmark.
        *            24) 04/05/2007 by Justin Oh - Added changes to select RC types
        *                ReportCards OR PurchasedReportCards.
        *            25) 10/03/2007 by Justin Oh - Removed code that removed Civilian PCM.
        *                IF "&RCTYPE" = 'ReportCards' AND
        *                MAJGRP="Enrollees with Civilian PCM" THEN DELETE;
        *            26) 10/03/2007 by Justin Oh - Removed %LET BCHTYPE to select BCH types
        *                Benchmark OR PurchasedBenchmark.
        *            27) 09/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            28) 01/10/2008 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            29) 04/11/2008 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            30) 10/02/2008 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS.
        *            31) 01/06/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS
        *            32) 01/16/2009 By Mike Rudacille - Changed CONUS to USA where appropriate
        *            33) 03/11/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
        *                Changed %LET LSTCONUS
        *            34) 04/11/2009 By Mike Rudacille - Changed BENTYPE and Composite definitions
```

```
*                to reflect modifications to beneficiary reports necessary for V4
*           35) 06/22/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
*               Changed %LET LSTCONUS
*           36) 09/30/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
*               Changed %LET LSTCONUS
*
*   INPUTS:  1) MERGFINQ.sas7bdat - Scores Database in WEB Layout
*            2) FAKEQ.sas7bdat - Scores Database WEB Layout
*             3) CONUS_Q.sas7bdat - Previous Quarters Combined CAHPS/MPR Scores Database in
WEB layout
*
*   OUTPUT:  1) TOTAL_Q.sas7bdat - Combined CAHPS/MPR Scores Database in WEB layout
*            2) LT30Q.sas7bdat - Records with <= 30 observations
*             3) CONUS_Q.sas7bdat - Current Quarters Combined CAHPS/MPR Scores Database in
WEB layout
*
*
*    NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS  - Recode questions and generate group files
*    - STEP2Q.SAS  - Calculate individual adjusted scores for group 1-7
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*    - LOADCAHPQ.SAS - Combine all questionnaire (CAHPS) scores together
*    - PRVCOMPQ.SAS - Calculate preventative measure scores for group1-8
*    - SMOKING_BMI.SAS    - Calculate healthy behaviors scores for group1-8
*    - LOADMPRQ.SAS   - Combined preventative and healthy behaviors scores
*    - MERGFINQ.SAS - Merge the final CAHPS and MPR Scores Databases
*
****************************************************************************
* Assign data libraries and options
***************************************************************************;

     LIBNAME IN1  ".";
     LIBNAME OUT  ".";

     OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER MPRINT MLOGIC;

****************************************************************************;
* Define GLOBAL parameters for last CONUSQ.sas7bdat, rolling quarters, and
* input dataset name.
*
* IMPORTANT: Update these GLOBALS each quarter prior to rerunning program.
***************************************************************************;
%LET LSTCONUS = ..\..\..\Q3FY2009t\Programs\Loadweb;

%LET PERIOD1 = October, 2008;
%LET PERIOD2 = January, 2009;
%LET PERIOD3 = April, 2009;
%LET PERIOD4 = July, 2009;

%LET DSN     = MERGFINQ;

****************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
***************************************************************************;
DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;
%LET FLAG = 0;
****************************************************************************
*
* Process Macro Input Parameters:
*
* 1) BENTYPE = Benefit Type
* 2) MAJGRP = Major Group
* 3) TYPE = INDIVIDUAL or COMPOSITE
* 4) BENEFIT = COMPOSITE Benefit Type
*
***************************************************************************;
%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
   SET IN1.&DSN END=FINISHED;
```

```
    %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
        WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
            /*SUBSTR(REGION,1,5) NOT IN("Bench","USA") AND*/
            /*SUBSTR(REGCAT,1,5) NOT IN("Bench","USA") AND*/
            SUBSTR(REGION,1,5) NE "Bench" AND SUBSTR(REGION,1,3) NE "USA" AND
            SUBSTR(REGCAT,1,5) NE "Bench" AND SUBSTR(REGCAT,1,3) NE "USA" AND
            REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
    %END;
    %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
        WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
            BENEFIT = "&BENEFIT" AND
            /*SUBSTR(REGION,1,5) NOT IN("Bench","USA") AND*/
            /*SUBSTR(REGCAT,1,5) NOT IN("Bench","USA") AND*/
            SUBSTR(REGION,1,5) NE "Bench" AND SUBSTR(REGION,1,3) NE "USA" AND
            SUBSTR(REGCAT,1,5) NE "Bench" AND SUBSTR(REGCAT,1,3) NE "USA" AND
            REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
    %END;
    %ELSE %DO;
        PUT "ERROR - Invalid Type = &TYPE";
    %END;

    IF SUBSTR(REGION,1,5) IN ('North','South') THEN DO;
        IF      SUBSTR(REGION,1,5)='North' THEN REGCON=1;
        ELSE IF SUBSTR(REGION,1,5)='South' THEN REGCON=2;
        TOTCON=1;
        IF      SUBSTR(REGION,7,4)='Army'      THEN SERVICE=1;
        ELSE IF SUBSTR(REGION,7,9)='Air Force' THEN SERVICE=2;
        ELSE IF SUBSTR(REGION,7,4)='Navy'      THEN SERVICE=3;
        ELSE                                        SERVICE=4;
    END;
    ELSE IF SUBSTR(REGION,1,4)='West' THEN DO;
        REGCON=3;
        TOTCON=1;
        IF      SUBSTR(REGION,6,4)='Army'      THEN SERVICE=1;
        ELSE IF SUBSTR(REGION,6,9)='Air Force' THEN SERVICE=2;
        ELSE IF SUBSTR(REGION,6,4)='Navy'      THEN SERVICE=3;
        ELSE                                        SERVICE=4;
    END;
    ELSE IF SUBSTR(REGION,1,6)='Europe' THEN DO;
        REGCON=4;
        TOTCON=2;
        IF      SUBSTR(REGION,8,4)='Army'      THEN SERVICE=1;
        ELSE IF SUBSTR(REGION,8,9)='Air Force' THEN SERVICE=2;
        ELSE IF SUBSTR(REGION,8,4)='Navy'      THEN SERVICE=3;
        ELSE                                        SERVICE=4;
    END;
        ELSE IF SUBSTR(REGION,1,7)='Pacific' THEN DO;
        REGCON=5;
        TOTCON=2;
        IF      SUBSTR(REGION,9,4)='Army'      THEN SERVICE=1;
        ELSE IF SUBSTR(REGION,9,9)='Air Force' THEN SERVICE=2;
        ELSE IF SUBSTR(REGION,9,4)='Navy'      THEN SERVICE=3;
        ELSE                                        SERVICE=4;
    END;
    ELSE IF SUBSTR(REGION,1,13)='Latin America' THEN DO;
        REGCON=6;
        TOTCON=2;
        IF      SUBSTR(REGION,15,4)='Army'      THEN SERVICE=1;
        ELSE IF SUBSTR(REGION,15,9)='Air Force' THEN SERVICE=2;
        ELSE IF SUBSTR(REGION,15,4)='Navy'      THEN SERVICE=3;
        ELSE                                         SERVICE=4;
    END;


RUN;

*************************************************************************;
* RSG 01/2005 Calc. total Service Affiliation Scores       *;
*************************************************************************;
PROC SORT DATA=TEMP;
BY SERVICE;

DATA TEMP2;
    SET TEMP;
```

```
   BY SERVICE;
      length key $200;
   IF FIRST.SERVICE THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;


KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.SERVICE THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE   = SUMSCOR1/SUMWGT1;
         SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
         SCORE   = .;
         SEMEAN  = .;
      END;

      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "USA";
      FLAG    = "USA";
      IF SERVICE=1 THEN REGION = "ARMY";
      IF SERVICE=2 THEN REGION = "AIR FORCE";
      IF SERVICE=3 THEN REGION = "NAVY";
      IF SERVICE=4 THEN REGION = "OTHER";
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
   END;
RUN;
**************************************************************************;
* RSG 01/2005 Calc. Total Region scores                               *;
**************************************************************************;
PROC SORT DATA=TEMP;
BY REGCON;
DATA TEMP3;
   SET TEMP;
   BY REGCON;
      length key $200;
   IF FIRST.REGCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.REGCON THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE = SUMSCOR1/SUMWGT1;
```

```
            SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
         END;
         ELSE DO;
            SCORE   = .;
            SEMEAN  = .;
         END;
         N_OBS   = N_OBS1;
         N_WGT   = SUMWGT1;
         SOURCE  = "REGION";
         FLAG    = "REGION";
         IF REGCON=1 THEN REGION = "NORTH";
         IF REGCON=2 THEN REGION = "SOUTH";
         IF REGCON=3 THEN REGION = "WEST";
         IF REGCON=4 THEN REGION = "Overseas Europe";
         IF REGCON=5 THEN REGION = "Overseas Pacific";
         IF REGCON=6 THEN REGION = "Overseas Latin America";

         REGCAT  = REGION;
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
         OUTPUT;
      END;
RUN;

************************************************************************;
* RSG 01/2005 Calc. Total CONUS Scores                                *;
* MER 01/2009 Changed CONUS to USA                                    *;
************************************************************************;
PROC SORT DATA=TEMP;
BY TOTCON;
DATA TEMP4;
   SET TEMP END=FINISHED;
   BY TOTCON;
      length key $200;
   IF FIRST.TOTCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;


      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;

   IF LAST.TOTCON THEN DO;



      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE   = SUMSCOR1/SUMWGT1;
         SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
         SCORE   = .;
         SEMEAN  = .;
      END;
      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "USA";
      FLAG    = "USA";
   IF TOTCON=1 THEN REGION = "USA MHS";
   IF TOTCON=2 THEN REGION = "OVERSEAS";
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
END;
```

```
       KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
             FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

       RUN;

       %IF &FLAG = 0 %THEN %DO;
          DATA FINAL;
             SET INIT TEMP2 TEMP3 TEMP4;
          RUN;
       %END;
       %ELSE %DO;
          DATA FINAL;
             SET FINAL TEMP2 TEMP3 TEMP4;
          RUN;
       %END;
       %LET FLAG = 1;

       %MEND;

       ****************************************************************************
       * Create CONUS for Active Duty - Individual
       ****************************************************************************;
       %PROCESS(BENTYPE=Claims Handled Correctly        ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Courteous Customer Service       ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Explains so You Can Understand    ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);

       ****************************************************************************
       * Create CONUS for Active Duty Dependents - Individual
       ****************************************************************************;
       %PROCESS(BENTYPE=Claims Handled Correctly            ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Courteous  Customer  Service        ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Explains  so  You  Can  Understand    ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Getting  Information                ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Getting  to  See  a  Specialist      ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Getting  Treatment                  ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Listens  Carefully                  ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Shows  Respect                      ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Spends  Time  with  You             ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Wait  for  Routine  Visit           ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Wait  for  Urgent  Care             ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);

       ****************************************************************************
       * Create CONUS for Enrollees with Civilian PCM - Individual
       ****************************************************************************;
       %PROCESS(BENTYPE=Claims Handled Correctly            ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Enrollees  with  Civilian  PCM,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Courteous  Customer  Service        ,MAJGRP=Enrollees  with  Civilian  PCM,
TYPE=INDIVIDUAL);
       %PROCESS(BENTYPE=Explains  so  You  Can  Understand    ,MAJGRP=Enrollees  with  Civilian  PCM,
TYPE=INDIVIDUAL);
```

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```
    %PROCESS(BENTYPE=Getting Information                    ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist           ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                         ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You                  ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit                ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                  ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Enrollees with Military PCM - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service            ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand        ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information                   ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist           ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                         ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You                  ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit                ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                  ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Non-enrolled Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly              ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service            ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand        ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information                   ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist           ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                         ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit                ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);

    ****************************************************************************
```

```
    * Create CONUS for Prime Enrollees - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly                    ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=Prime   Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service                ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand          ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                        ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist            ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                          ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                          ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows  Respect                              ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                    ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit                  ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                    ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);


    ****************************************************************************
    * Create CONUS for Retirees and Dependents - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly                ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service              ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand          ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information                     ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist            ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                      ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                      ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                          ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You                   ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit                 ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                   ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);


    ****************************************************************************
    * Create CONUS for All Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly                    ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=All   Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service                ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand          ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                        ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist            ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                          ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                          ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
```

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```
    %PROCESS(BENTYPE=Shows  Respect                              ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                     ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit                   ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                     ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);


    ****************************************************************************
    * Process Quarterly CONUS Composites
    ****************************************************************************
    ****************************************************************************
    * Create CONUS for Claims Processing - Quarterly
    ***************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                               ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);     ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with     Civilian    PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with     Military     PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",     MAJGRP=Non-enrolled       Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                          ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",     MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",  MAJGRP=All   Beneficiaries                        ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);


    ****************************************************************************
    * Create CONUS for Customer Service - Quarterly
    ***************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                              ,
TYPE=COMPOSITE,BENEFIT=Customer  Service);     ***MJS 07/08/03 Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with     Civilian    PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with     Military     PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",     MAJGRP=Non-enrolled       Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                          ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",     MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",  MAJGRP=All   Beneficiaries                        ,
TYPE=COMPOSITE,BENEFIT=Customer Service);


    ****************************************************************************
    * Create CONUS for Getting Care Quickly - Quarterly
    ***************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                              ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);    ***MJS 07/08/03 Changed  BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with     Civilian    PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with     Military     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                          ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",     MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",  MAJGRP=All   Beneficiaries                        ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
```

```
    ****************************************************************************
    * Create CONUS for Getting Needed Care - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                              ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Military     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled        Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                          ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Retirees    and    Dependents              ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                        ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);


    ****************************************************************************
    * Create CONUS for Health Care - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                              ,
TYPE=COMPOSITE,BENEFIT=Health   Care);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Military     PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled        Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                          ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Retirees    and    Dependents              ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                        ,
TYPE=COMPOSITE,BENEFIT=Health Care);


    ****************************************************************************
    * Create CONUS for Health Plan - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                              ,
TYPE=COMPOSITE,BENEFIT=Health   Plan);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Military     PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled        Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                          ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Retirees    and    Dependents              ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                        ,
TYPE=COMPOSITE,BENEFIT=Health Plan);


    ****************************************************************************
    * Create CONUS for How Well Doctors Communicate - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                              ,
TYPE=COMPOSITE,BENEFIT=How   Well   Doctors   Communicate);        ***MJS   07/08/03   Changed
BENTYPE="&PERIOD4" to BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with       Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
```

```
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries      ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Retirees    and    Dependents         ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",  MAJGRP=All   Beneficiaries                       ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);


    ****************************************************************************
    * Create CONUS for Primary Care Manager - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                            ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries      ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Retirees    and    Dependents         ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",  MAJGRP=All   Beneficiaries                       ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);


    ****************************************************************************
    * Create CONUS for Specialty Care - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                            ,
TYPE=COMPOSITE,BENEFIT=Specialty  Care);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries      ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Retirees    and    Dependents         ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",  MAJGRP=All   Beneficiaries                       ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);


    ****************************************************************************
    * Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
    * as place holders for missing records.  FAKEQ will be used for adding
    * new records.
    ****************************************************************************;
    DATA FAKEQ;
      SET IN1.FAKEQ;
        length key $200;
      SIG = .;
      SCORE = .;
      ORDER = _N_;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;

    RUN;
    PROC SORT DATA=FAKEQ OUT=TEMPQ;        BY KEY; RUN;
    PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;


    ****************************************************************************
    * Append BENCHMARK records to CAHPS records and perform significance tests
```

```
    *****************************************************************************;
    DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
       SET IN1.&DSN;
       WHERE SUBSTR(REGION,1,5) = "Bench" AND SVMPRQ = 0;
    RUN;
    Data abnchmrk(keep=benefit bentype ascore);
    set benchmrk;
    where upcase(majgrp)='ALL BENEFICIARIES';
    rename score=ascore;
    run;
    proc sort; by benefit bentype;
    proc sort data=benchmrk; by benefit bentype;
    data benchmrk;
    merge benchmrk abnchmrk; by benefit bentype;run;
    PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

    PROC SORT DATA=FINAL; BY KEY; RUN;

    DATA CONUS_Q;
       MERGE FINAL(IN=IN1) FAKEQ(IN=IN2);
       BY KEY;
       IF IN1;
    RUN;
    PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE; RUN;

    *****************************************************************************
    * Perform significance tests for CONUS scores
    *****************************************************************************;
    DATA SIGTEST1;
       MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
       BY MAJGRP BENEFIT BENTYPE;
       length key $200;
       TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
       IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1)); /** RSG 06/22/2004 - PUT
CONDITION TO AVOID DF=0 WHICH CAUSES ERROR FOR PROBT FUNCTION **/
       ELSE TEST = .; /** RSG 06/22/2004 - ADDED FOR CASES WITH N_OBS = 1 OR LESS SINCE PROBT
CAN'T BE PERFORMED AND WOULD RESULT IN TEST = MISSING ANYWAY **/
       SIG = 0;
       IF TEST < 0.05 AND TEST NE . THEN SIG = 1; /** RSG 06/22/2004 - ADDED CONDITION "TEST NE
." IN CASE MISSING IS CONSIDERED LESS THAN 0.05 **/
       IF SCORE < BSCORE THEN SIG = -SIG;


       KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
             UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
             UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
       SOURCE = "USA_Q";
       FLAG   = "USA_Q";
       IF SIN;
       score=score+ascore-bscore;
    RUN;
    PROC SORT DATA=SIGTEST1; BY KEY; RUN;

    *****************************************************************************
    * Extract CAHPS scores to perform significance tests
    *****************************************************************************;
    DATA CAHPS MPR bench;
       SET IN1.&DSN;
       *****************************************************************************
       * Significance tests have already been performed for MPR scores,
       * so remove from file.
       *****************************************************************************;
       IF SVMPRQ = 1 THEN OUTPUT MPR;
       IF SVMPRQ = 0 THEN do;
        if majgrp ne 'Benchmark' then OUTPUT CAHPS;
        else output bench; end;
    RUN;


    PROC SORT DATA=CAHPS;
       BY MAJGRP BENEFIT BENTYPE;
    RUN;


    *****************************************************************************
```

```
      * Perform significance tests for CAHPS scores
      ****************************************************************************;
      DATA SIGTEST2;
         MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
         BY MAJGRP BENEFIT BENTYPE;
         TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
         IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));  /** RSG 06/22/2004 PUT N_OBS >
1 CONDITION TO AVOID ERRORS BECAUSE PROBT CAN NOT HANDLE DF=0 **/
         ELSE TEST = .;
         SIG = 0;
         IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
         IF SCORE < BSCORE THEN SIG = -SIG;
         IF SIN;
         score=score+ascore-bscore;
         RUN;
      proc sort data=bench; by majgrp benefit bentype;
      data sigtest2;
      set sigtest2 bench; by majgrp benefit bentype;
      PROC SORT DATA=SIGTEST2; BY KEY; RUN;


      ****************************************************************************
      * When NOT 1st quarter: Get records from previous quarters
      ****************************************************************************;
      %MACRO LASTQTR;
         ****************************************************************************
         * Input composite records from previous quarters.
         ****************************************************************************;
         LIBNAME IN2 "&LSTCONUS";
         DATA LASTQTR (drop=key2); /*RSG 10/2005 - KEY2 WAS CREATED AT END OF PROG TO HELP
                                      SET TREND TO MISSING FOR SCORES MISSING IN ANY QUARTERS
                                      THIS SHOULD BE DROPPED AND RESET AT THE END OF PROG*/
            SET IN2.CONUS_Qr (DROP=KEY);

      /*** Change BENEFIT "Heathly Behavior" to Healthy "Behaviors" JSO 02/16/2007 ***/
            IF BENEFIT = 'Healthy Behavior' THEN BENEFIT = 'Healthy Behaviors';

      /*** Change SOURCE and FLAG from "CONUS_Q" to "USA_Q" MER 01/29/2009 ***/
      /*** Change REGION and REGCAT from "CONUS MHS" to USA MHS" MER 01/29/2009 ***/
            IF SOURCE = 'CONUS_Q' THEN SOURCE = 'USA_Q';
            IF FLAG = 'CONUS_Q' THEN FLAG = 'USA_Q';
            IF REGION = 'CONUS MHS' THEN REGION = 'USA MHS';
            IF REGCAT = 'CONUS MHS' THEN REGCAT = 'USA MHS';

            IF timepd IN ("&PERIOD1","&PERIOD2","&PERIOD3") AND
              (REGION = REGCAT) AND
               BENEFIT IN ("Getting Needed Care",
                           "Getting Care Quickly",
                           "How Well Doctors Communicate",
                           "Customer Service",
                           "Claims Processing",
                           "Health Care",
                           "Health Plan",
                           "Primary Care Manager",
                           "Specialty Care",
                           "Preventive Care",
                           "Healthy Behaviors") & TIMEPD NE "Trend";



            KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                  UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                  UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));

         RUN;
      %MEND LASTQTR;
      %LASTQTR;

      PROC SORT DATA=LASTQTR(DROP=ORDER); BY KEY; RUN;

      DATA LASTQTR;
         MERGE TEMPQ(IN=IN1) LASTQTR(IN=IN2);
         BY KEY;
         IF IN1 AND IN2;
      RUN;
```

```
PROC SORT DATA=MPR; BY KEY; RUN;

****************************************************************************
* Combine previously created records with the new file
****************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 LASTQTR MPR;
   BY KEY;
   if timepd="&period1" then period=1;   ***MJS 07/08/03 Changed from bentype="&period1";
   if timepd="&period2" then period=2;   ***MJS 07/08/03 Changed from bentype="&period2";
   if timepd="&period3" then period=3;   ***MJS 07/08/03 Changed from bentype="&period3";
   if timepd="&period4" then period=4;   ***MJS 07/08/03 Changed from bentype="&period4";
   ****************************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   ****************************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

data trend;
set combine;
where period ne . ;
if period<4|benefit="Preventive Care" then score=score/100;

proc sort data=trend;
by majgrp region regcat benefit bentype period;
run;

data avg(keep=majgrp region regcat benefit t_obs a_period a_score twgt bentype) ;
set trend;   by majgrp region regcat benefit bentype period;
if majgrp="Benchmark"|region="Benchmark" then n_wgt=1;
if first.majgrp|first.region|first.regcat|first.benefit|first.bentype then do;
t_obs=0;
t_score=0;
twgt=0;
t_period=0;
end;
t_obs+n_obs;
t_Score+n_wgt*score;
twgt+n_wgt;
t_period+period*n_wgt;
 if last.majgrp|last.region|last.regcat|last.benefit|last.bentype then do;
    if twgt notin (.,0) then do;
       a_score=t_score/twgt;
       a_period=t_period/twgt;
    end;
    else do;
       a_score=.;
       a_period=.;
    end;
    output;
 end;
RUN;

data trend2(drop=score) btrend(keep=majgrp benefit bentype trend serr);
merge trend avg;  by majgrp region regcat benefit bentype;
if majgrp="Benchmark"|region="Benchmark" then n_wgt=1;
if first.majgrp|first.region|first.regcat|first.benefit|first.bentype then do;
t_score=0;
t_se=0;
t_period=0;
end;
t_se+((n_wgt**2)*(semean**2));
t_score+n_wgt*(score-a_score)*(period-a_period);
t_period+n_wgt*(period-a_period)**2;
if last.majgrp|last.region|last.regcat|last.benefit|last.bentype then do;
if t_period ne 0 then do;   /* RSG 06/22/2004 Added to avoid division by zero*/
   trend=t_score/t_period;
   serr=sqrt(t_se/(t_period*twgt));
end;
else do;
```

```
          trend=.;
          serr=.;
      end;
      if region="Benchmark"|majgrp="Benchmark" then output btrend;
      output trend2;
      end;
      proc sort data=trend2; by majgrp benefit bentype;RUN;
      proc sort data=btrend; by majgrp benefit bentype;
      data trend3(rename=(trend=score));
      merge trend2 btrend(rename=(trend=btrend serr=bserr));
      by majgrp benefit bentype;
          length key $200;
      if ^(region="Benchmark"|majgrp="Benchmark") then do;
      ttrend=trend-btrend;
      serr=sqrt((serr**2)+(bserr**2));
      sig=0;
      if serr > 0 and t_obs notin (.,0) then test= 2*(1-probt(abs(ttrend/serr),t_obs));   /* RSG
06/22/2004 Added to avoid division by zero*/
      else test = .;
      if test<.05 & test ne . then sig=1;
      if sig=1 & ttrend<0 then sig=-1;
      end;
      timepd="Trend";
          KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      run;

      proc sort data=trend3(drop=t_obs twgt a_score a_period t_score t_se t_period serr
       bserr btrend ttrend order); by key;
       data trend4 ;
       merge trend3(in=din) fakeq(in=cin); by key;
       if din;
       RUN;


      data combine2;
      set combine trend4;RUN;

      proc sort; by key;
      data combine3 dupe;
      set combine2; by key;
      if ^(first.key & last.key) then output dupe;
      output combine3;
      proc print data=dupe;run;

      /* RSG 06/2005 - set trend to missing for component/composite
         scores with missing scores in any of the quarter*/
      data misses (keep=key2) all;
      set combine3;
      length key2 $200.;
      KEY2 = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                UPCASE(TRIM(REGION));
      if score = . then output misses;
      output all;
      run;
      proc sort data=misses;
      by key2;
      proc sort data=all;
      by key2;
      run;

      data combine4;
      merge all (in=a) misses (in=b);
      by key2;
      if a and b then do;
        if timepd = "Trend" then score = .;
      end;
      run;

      **************************************************************************
      * Create place holders for missing records
      **************************************************************************;
```

```
DATA FAKEONLY;
   MERGE COMBINE4(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;

RUN;

********************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
********************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE4;
   BY KEY;
   **********************************************************************
   * Convert CAHPS Composites and Individual to 1-100 scale
   **********************************************************************;
   IF timepd="Trend" OR (timepd="&PERIOD4" & benefit ne "Preventive Care")
      then
         SCORE = SCORE*100;
RUN;

PROC SORT DATA=CONUS_Q; BY ORDER; RUN;

DATA FAKEQ;
   SET IN1.FAKEQ;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/31/03 Added TIMEPD;

RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;         BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

PROC SORT DATA=CONUS_Q out=OUT.CONUS_Q;
BY KEY;
RUN;

DATA FAKEONLY;
   MERGE OUT.CONUS_Q(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

DATA TOTAL_Q;
   SET FAKEONLY OUT.CONUS_Q;
   BY KEY;
   IF MAJGRP="All Beneficiaries" then MAJGRP="All Users";
   IF MAJGRP="Non-enrolled Beneficiaries" then MAJGRP="Standard/Extra Users";
   IF BENEFIT="Primary Care Manager" THEN BENEFIT="Personal Doctor";   /*MJS 02/05/2003*/
   /* 11/14/2005 RSG - ADDED IN THESE CODE TO CAPITALIZE ALL WORDS IN TITLE */
   /*IF BENTYPE = "Problems Getting Referral to Specialist       "
      THEN BENTYPE = "Problems Getting Referral To Specialist  ";
   IF BENTYPE = "Delays in Care while Awaiting Approval         "
      THEN BENTYPE = "Delays In Care While Awaiting Approval    ";
   IF BENTYPE = "Advice over Telephone                         "
      THEN BENTYPE = "Advice Over Telephone                     ";
   IF BENTYPE = "Wait for Routine Visit                        "
      THEN BENTYPE = "Wait For Routine Visit                    ";
   IF BENTYPE = "Wait for Urgent Care                          "
      THEN BENTYPE = "Wait For Urgent Care                      ";
   IF BENTYPE = "Wait More than 15 Minutes Past Appointment    "
      THEN BENTYPE = "Wait More Than 15 Minutes Past Appointment";
   IF BENTYPE = "Explains so You can Understand                "
      THEN BENTYPE = "Explains So You Can Understand            ";
   IF BENTYPE = "Spends Time with You                          "
      THEN BENTYPE = "Spends Time With You                      ";
```

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```
     IF BENTYPE = "Courteous and Respectful                    "
        THEN BENTYPE = "Courteous And Respectful               ";
     IF BENTYPE = "Problem Getting Help from Customer Service    "
        THEN BENTYPE = "Problem Getting Help From Customer Service";
     IF BENTYPE = "Problem with Paperwork                       "
        THEN BENTYPE = "Problem With Paperwork                   ";
     IF BENTYPE = "Claims Handled in a Reasonable Time          "
        THEN BENTYPE = "Claims Handled In A Reasonable Time      ";*/
     IF substr(region,1,5) in ('Latin','Europ','Pacif')|Region='Overseas Latin America'
      then delete;

  RUN;

  PROC SORT DATA=TOTAL_Q OUT=OUT.TOTAL_Q; BY ORDER; RUN;

  TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6401-904)";
  TITLE2 "Program Name: CONUS_Q.SAS By Keith Rathbun";
  TITLE3 "Program Inputs: MERGFINQ.sas7bdat - Scores Database in WEB Layout";
  TITLE4 "Program Outputs: TOTAL_Q.sas7bdat - USA Scores Database in WEB layout";

  PROC FREQ;
  TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/08/03 Added
TIMEPD*/
          REGION*REGCAT
          /MISSING LIST;
  RUN;
```

G.7   Q4FY2009\PROGRAMS\LOADWEB\CREATETOTAL_QP4.SAS - COMBINES THE REGULAR TOTALQ AND PURCHASE TOTALQ INTO ONE DATASET - RUN QUARTERLY.

```
/*********************************************************************************/
/*** Project: 6244 DOD                                                     ***/
/*** Program: CreateTotal_qp&PERIOD.sas                                    ***/
/*** Purpose: Add from Purchase Care's Totalq data, Enrollees with Civilian PCM ***/
/***          to the Adult Beneficiary's Totalq data.  New data will be use to ***/
/***          populate the Purchase Care's section of the html reports.    ***/
/*** Author : Justin Oh 08/06/2008                                         ***/
/*** Input  : ..currentPeriod\PurchasedLoadweb\total_q                     ***/
/***          ..currentPeriod\Loadweb\total_q                              ***/
/*** Output : .\total_q                                                    ***/
/*** Modify :                                                              ***/
/*** B-4-Run: Change the %LET statements at the top of the program.        ***/
/*********************************************************************************/
OPTIONS COMPRESS=YES;

/*** Reference quarter's period                                            ***/
%LET PERIOD = 4;

/*** Adult Beneficiary and Purchase Care total_q.sas7bdat locations        ***/
LIBNAME TOTQ_P '..\PurchasedLoadweb';
LIBNAME TOTQ_A '.';
LIBNAME TOTQ_X '.';

/*** Keep only Enrollees with Civilian PCM, used for the Purchased Care group ***/
DATA total_pc;
   SET TOTQ_P.total_q;
   IF MAJGRP = 'Enrollees with Civilian PCM';
   IF MAJGRP = 'Enrollees with Civilian PCM' THEN MAJGRP = 'Purchased Care Users';
RUN;
/*** Add Purchase Care's renamed MAJGRP to create a final total_q file     ***/
DATA TOTQ_X.total_qp&PERIOD;
   SET TOTQ_A.total_q total_pc;
RUN;

/******************************* END OF PROGRAM *********************************/
```

```
*=======================================================================;
*   Programmer:  Mark A. Brinkley                                       ;
*        Title:  MAKEHTMQ.SAS                                           ;
*       Client:  6077-410                                               ;
*         Date:  06-01-2001                                             ;
*                                                                       ;
*      Purpose:  This program is designed to create                    ;
*                report cards for the 2000 DOD project                  ;
*                                                                       ;
*                                                                       ;
*  Input files:  TOTAL_QR.SD2                                           ;
* Output files:  HTML\                                                  ;
*                  1269*3 F*.HTM Files (Frame version)                  ;
*                  1269  P*.HTM Files (Printer friendly - no frames)    ;
*                    P*.XLS Files (Excel files)                         ;
*                  -------------------                                  ;
*                                                                       ;
*                                                                       ;
*                                                                       ;
*    ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!    ;
*                                                                       ;
*     IF YOU MODIFY THIS PROGRAM THEN PLEASE INITIAL AND DOCUMENT       ;
*     YOUR CHANGES.  THOSE FAILING TO DO THIS WILL BE SEVERELY          ;
*     BEATEN.                                                           ;
*                                                                       ;
*    ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!    ;
*                                                                       ;
*                                                                       ;
*                                                                       ;
* Modifications:                                                        ;
* 11-01-2000 - JSykes added pieces to create Excel Spreadsheets         ;
* 07-01-2001 - MAB modified for qtr 2                                   ;
* 10-25-2001 - C.Rankin moved link to printer friendly version         ;
*              from frame, created macro variable to include           ;
*              third row of subbenefit heading                         ;
* 11-01-2001 - D.Beahm changed splitpercent to splitpixel and adjusted ;
*              the pixel size of the top frame to prevent scrolling    ;
*              she also added a <BR> before the printer icon to make   ;
*              sure it appears on it's own line                        ;
* 12-21-2001 - D.Beahm changed column widths for frame page a so that  ;
*              the column headers would line up with the data in frame ;
*              page b. Also revised Excel code so benchmarks for the   ;
*              majorgrp are shaded dark red instead of blue            ;
* 04-18-2002 - Quarterly report cards will now show a rolling 4        ;
*              quarters of data for the trend. DKB updated the period  ;
*              BENTYPE references to account for this, this will need  ;
*              to be done each quarter. Also revised footnote          ;
*              to indicate that this is the 2002 Survey of Health Care ;
*              Beneficiaries. This reflects a change from previous     ;
*              years, the survey year now refers to the processing     ;
*              year instead of the year for which data was collected.  ;
*              Also changed image reference from QTR to COL, these     ;
*              new names for the qtr images reflects the column they   ;
*              are in instead of the quarter they represent            ;
* 06-19-2002 - Mark Brinkley                                           ;
*                Updated for Q2_2002                                   ;
*                Changed macro var PERIOD to CURRENTPERIOD             ;
*                Added macro vars PERIOD1-PERIOD3                      ;
* 07-29-2002 - Daniele Beahm                                           ;
*                Added links to trend pages. Clicking on the fielding  ;
*                Period now takes you to the component page for that   ;
*                period and clicking on the Trend column header now    ;
*                takes you to the Trend section of the help file       ;
* 02-04-2003 - Mike Scott                                              ;
*                Changed "Primary Care Manager" to "Personal Doctor"   ;
* 02-10-2003 - Mike Scott                                              ;
*                Inserted LENGTH HREF $ 250 statements before          ;
*                href = "string" statements so that href wouldn't be   ;
*                set by default                                        ;
* 02-14-2003 - Mike Scott                                              ;
```

```
*                    Added code to avoid scores > 100             ;
* 04-30-2003 - Mike Scott                                         ;
*                    Changed Preventive Care columns from 5 to 6 to  ;
*                    accommodate Cholesterol Testing.             ;
* 05-01-2003 - Mike Scott                                         ;
*                    Updated periods for Q1 2003, and changed "2001 and  ;
*                    2002" to "2002 and 2003" and "2002 Health Care  ;
*                    Survey" to "2003 Health Care Survey".        ;
* 05-04-2003 - Mike Scott                                         ;
*                    Removed Civilian PCM (var1=3 or majgrp=3), and  ;
*                    changed 4-8 references to 3-7.               ;
* 05-06-2003 - Mike Scott                                         ;
*                    Changed 7-0-0 to 8-0-0.                      ;
* 05-13-2003 - Mike Scott                                         ;
*                    Changed two widths.                          ;
* 05-14-2003 - Mike Scott                                         ;
*                    Changed columns from 2-12 to 1-11 which is   ;
*                    controlled by var3 - decreased var3's by 1 and  ;
*                    decreased K loops by 1.                      ;
* 07-03-2003 - Mike Scott                                         ;
*                    Incorporated TIMEPD variable into program to run  ;
*                    with Q1 2003 TOTAL_Q rerun to include TIMEPD  ;
*                    variable.                                    ;
* 07-30-2003 - Mike Scott                                         ;
*                    Added else do section to correct header.     ;
* 07-31-2003 - Mike Scott                                         ;
*                    Updated periods for Q2 2003.                 ;
* 08-01-2003 - Mike Scott                                         ;
*                    Added code so periods would print on var3=7,8,9,10. ;
* 08-07-2003 - Regina Gramss                                      ;
*                    Changed program to create additional trend pages  ;
*                    for each sub-benefit: pages are now named with 4  ;
*                    numbers (var4 has been added to all file name  ;
*                    references) to compensate for additional layer  ;
*                    of pages. All file references have been changed  ;
*                    to include var4.                             ;
* 01-28-2004 - Mike Scott                                         ;
*                    Changed back to html being generated in HTML  ;
*                    directory below directory where MAKEHTMQ is being  ;
*                    run.                                         ;
* 01-29-2004 - Mike Scott                                         ;
*                    Commented out LENGTH HREF $ 250 statements, since  ;
*                    HREF was already declared.                   ;
* 02-11-2004 - Mike Scott                                         ;
*                    Changed all lengths to 100 that were less than 100. ;
* 03-24-2004 - Mike Scott                                         ;
*                    Updated for Q1 2004.  Changed hard-coded years in  ;
*                    footnotes stating source to macro variables. ;
* 05-07-2004 - Mike Scott - Changed "Wait More than 15 Minutes Past  ;
*                    Appointment" to "Wait in Doctor's Office" and  ;
*                    "Problems Getting Referral to Specialist" to "Problems ;
*                    Getting to See Specialist".  NAed out trends for the  ;
*                    composites Getting Needed Care, Getting Care Quickly,  ;
*                    and Customer Service and for the questions Problems  ;
*                    Getting Personal Doctor/Nurse (GNC), Wait in Doctor's  ;
*                    Office (GCQ), and Problem with Paperwork (CS).  ;
* 02-16-2004 - Mike Scott - Moved initial data read-in outside macro  ;
*                    loop to speed up program.                    ;
* 06-22-2004 - Regina Gramss - Updated for Q2 2004 run.           ;
* 08-02-2004 - Regina Gramss - removed lines that replaced trend  ;
*                    with NA                                      ;
* 10-07-2004 - Regina Gramss - Adjusted for XTNEXREG              ;
* 02-14-2005 - Mark Brinkley - added 12th benefit SMOKING         ;
* 05-10-2005 - Regina Gramss - deleted chol testing under Prevention  ;
*                    and added BMI for Healthy Behaviors (which replaced  ;
*                    Smoking Cessation)                           ;
* 07-29-2005 - Regina Gramss - updated for Q2 2005 - changed period  ;
*                    values to quarter, cy values (vs. dates)     ;
* 10-31-2005 - Regina Gramss - updated for Q3 2005               ;
* 12-28-2005 - Regina Gramss - updated for Q4 2005               ;
* 05-11-2006 - Lucy Lu - updated for Q2 FY 2006                  ;
*                    change made:  change macro variables SRCYR1 to SRFYR1  ;
*                                            SRCYR2 to SRFYR2      ;
* 02-09-2007 - Justin Oh - condensed %if statement for bottom_notes  ;
```

```
*                         macro.                                    ;
* 02-15-2007 - Justin Oh - added bottom_notes_xls to condensed %if    :
*              statements for xls outputs in three places            ;
* 02-01-2009 - Mike Rudacille - changed CONUS to USA                 ;
*                                                                     ;
* NOTE: Update only SRFYR1, SRFYR2, PERIOD1/2/3, and CURRENTPERIOD.  ;
*=====================================================================;

%LET SRFYR1 = 2008;   *** Previous year;   /*MJS 03/24/04 Added macro variables*/
%LET SRFYR2 = 2009;   *** Current year;

/*** Added macro variables for previous periods (MAB 6-19-2002) ***/
%LET PERIOD1 = October, 2008;
%LET PERIOD2 = January, 2009;
%LET PERIOD3 = April, 2009;

/*** Change name of macro variable from PERIOD (MAB 6-19-2002) ***/
%LET CURRENTPERIOD = July, 2009;   /** Current Period of these reports **/
%LET QTRS=4; /** Qtr of these reports     **/
%LET QTRNO=1;     /**LLU 5/15/06. ne 1 indicates the data is from cuerrent year and
proceeding year, 1 is from current year only*/


OPTIONS NOXWAIT;        /* 2000/11: added noxwait*/


%LET HTMLSP=%NRSTR( );     /**DANIELE CHANGED %STR(&NBSP;) TO %NRSTR(&NBSP)**/
%LET QUOTE=%STR("");
%LET OUTDIR=HTML;                   /** Directory to put HTML files **/  /*MJS 01/28/04 Set
to HTML*/
%LET IMGDIR=images;              /** Directory with images **/
%LET TARGET=target='_parent';    /** HTML code for frames targeting **/
%LET OUTXLS=1;                   /** 1=Make XLS file/0=Don't   Added 1-24 MAB **/
%LET fontface=%STR(Arial,Helvetica,Swiss,Geneva);
%LET hdcolr=%STR('white');
%LET BLUE=%STR('#663300');       /** This is really dark red **/
%LET GREEN=%STR('#009933');
%LET RED=%STR('#cc0000');
%LET GRAY=%STR('white');
%LET LOGO=%STR('images\tricare_side_35_new.gif');
%LET HELP_BUT=%STR('images\help75.gif');
%LET HOME_BUT=%STR('images\home75.gif');
%LET BACK_BUT=%STR('images\back75.gif');
%LET NUMBER_HTML_FILES=0;          /** Keep count of HTML files created **/


%LET SUB_HEAD=0;                   /** Macro variable for sub-benfit heading **/
                                   /** 1=headings, 0=no headings         **/

/*********************************************************/
/***** Macro for putting notes at bottom of table   *****/
/*********************************************************/
%MACRO BOTTOM_NOTES();            /** Modified %if condition at the QTRNO level to minimize
duplicate codes **/
                                  /** Deleted previously commented out per page bottom
notes. JSO 02/09/07  **/
        PUT "<tr>";

    %IF &QTRNO NE 1 %THEN %DO;
        PUT "           <td  colspan='&columns.'><font  face='Arial,Helvetica,Swiss,Geneva'
size='2'>Source:  Health  Care  Surveys  of  DoD  Beneficiaries  conducted  in  &SRFYR1  and
&SRFYR2.</font>";   ***MJS 03/24/04
    %END;
    %ELSE %DO;
        PUT "           <td  colspan='&columns.'><font  face='Arial,Helvetica,Swiss,Geneva'
size='2'>Source: &SRFYR2 Health Care Survey of DOD Beneficiaries</font>";    ***MJS 03/24/04
Changed hard-coded year to
    %END;

        PUT "   <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
        PUT     "                   <b>Indicates   score    significantly    exceeds
benchmark</b></font><b>&htmlsp.<br>";
        PUT     "                </b><font    face='Arial,Helvetica,Swiss,Geneva'    size='2'
color='#cc0000'><i>Indicates score significantly falls short of benchmark</i></font><br>";
```

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```
         PUT "          <font  face='Arial,Helvetica,Swiss,Geneva'  size='2'>NA  Indicates  not
applicable</font><br>";

       /* MER 10/24/2009 Fix no longer needed */
       /*%if &var3 = 4 and &seppage = 2 %then %do;
         PUT "      <font face='Arial,Helvetica,Swiss,Geneva' size='2'>* Indicates scores not
available for that quarter</font><br>";
       %end;*/

         PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed
due to small sample size</font><br>";

       %if &var3 = 0 %then %do;
         PUT "          <font  face='Arial,Helvetica,Swiss,Geneva'  size='2'>#  Indicates  <a
href='..\html\help.htm#transition' &target.>change</a> to composite</font><br>";
       %end;
       %else %if &var3 = 1 or &var3 = 3 or (&var3 = 11 and &seppage = 1) %then %do;
         PUT "          <font  face='Arial,Helvetica,Swiss,Geneva'  size='2'>#  Indicates  <a
href='..\html\help.htm#transition' &target.>change</a> to questions</font><br>";
       %end;

         PUT "     <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
         PUT "</td></tr>";

    %MEND BOTTOM_NOTES;

    %MACRO BOTTOM_NOTES_XLS();         /** Added BOTTOM_NOTES_XLS macro to substitute 3 separate
duplicate codes.       **/
                                      /**  Big  difference  between  BOTTOM_NOTES  macro  is  the
special fonts. JSO 02/15/07  **/
        %if &outxls.=1 %then %do;
           FILE XLSDATA;
           PUT; PUT;
           %if &var3.=0 %then %do;
              PUT "Source: &SRFYR2 Health Care Survey of DOD Beneficiaries";
           %end;
           %else %do;
              %IF &QTRNO NE 1 %THEN %DO;
                  PUT "Source:  Health  Care  Surveys  of  DoD  Beneficiaries  conducted  in  &SRFYR1
and &SRFYR2";
              %END;
              %ELSE %DO;
                  PUT "Source: &SRFYR2 Health Care Survey of DOD Beneficiaries";
              %END;
           %end;
              PUT "Indicates score significantly exceeds benchmark";
              PUT "Indicates score significantly falls short of benchmark";
              PUT "NA Indicates not applicable";
           /* MER 10/24/2009 Fix no longer needed */
           /*%if &var3 = 4 and &seppage = 2 %then %do;
              PUT "* Indicates scores were not available that quarter";
           %end;*/
           PUT "*** Indicates suppressed due to small sample size";
           %if &var3 = 0 %then %do;
              PUT "# Indicates change to composite";
           %end;
           %else %if &var3 = 1 or &var3 = 3 or (&var3 = 11 and &seppage = 1) %then %do;
              PUT "# Indicates change to questions";
           %end;
        %end;

    %MEND BOTTOM_NOTES_XLS;

    /*******************************************************/
    /***** Macro for adding in link row to trends data  *****/
    /*******************************************************/

    /*** Macro variable with Javascript to go back ***/
    %LET     GOBACK=%STR(<script>document.write(&quote.<a       href='javascript:history.go(-1)'
target='_parent'>&quote.);
    document.write(&quote.<img  src='images\\back75.gif'  border='0'  alt='Go  to  previous
page'>&quote.);document.write(&quote.</a>&quote.);</script>);
```

```
      LIBNAME SRC1  '.'  ACCESS=READONLY;
      OPTIONS LS=210;

      /*********************************************************************/
      /****   Macro to create html pages                            ****/
      /****           var1=major group                              ****/
      /****           var2=region                                   ****/
      /****           var3=benefit                                  ****/
      /****           var4=trend                                    ****/
      /****        seppage=0/no separate pages for qtrly trends     ****/
      /****               1/1st separate page                       ****/
      /****               2/2nd separate page                       ****/
      /*********************************************************************/
      /** RSG 08/07/03 - added var4 to add extra dimension of page numbers for
          sub benefit trend pages**/

      /** Load in data **/   ***MJS 05/13/04;
      DATA PRE_SUBSET;
        SET SRC1.TOTAL_QP4;


        IF BENEFIT="Total" THEN DELETE;  /*** MAB testing 2/11/2005 ***/

        /* MER 08/27/09 Temporary fix for Q3FY2009 */
        /*IF (BENEFIT="Customer Service" AND TIMEPD="Trend") THEN SCORE=.;*/

        IF SCORE>100 then SCORE=100;                              ***MJS ADDED 2/14/2003
to avoid scores > 100;
        IF (TIMEPD="Trend" and -.5<SCORE<0) THEN SCORE=ABS(SCORE);       ***DKB ADDED 8/13/2002
to avoid negative zero values;
        IF TIMEPD="Trend" THEN TIMEPD="Est. Quarterly Rate of Change";    ***DKB ADDED 8/12/2002
to rename Trend column;

        IF BENTYPE="Wait More Than 15 Minutes Past Appointment" THEN     /*MJS 5/7/04 Changed
label*/
          BENTYPE="Wait In Doctor`s Office";
        IF BENTYPE="Problems Getting Referral To Specialist" THEN        /*MJS 5/7/04 Changed
label*/
          BENTYPE="Problems Getting To See Specialist";
        IF BENTYPE="Percent Normal Weight" THEN
          BENTYPE="Percent Not Obese";                                   /* RSG 09/20/2005
Changed label*/

        /**RSG 01/2005 CREATE SERVICE FIELD TO ORDER REGION BY SERVICE AFFILIATION, ALSO
          CHANGE CONUS SERVICE AFFILIATION TO LOWER CASE*/

          IF MAJGRP = "Benchmark" THEN LINEUP=1;
          ELSE IF MAJGRP = "Prime Enrollees" THEN LINEUP=2;
          ELSE IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=3;
          ELSE IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=4; ***JSO 11/07/07 Added
Civilian PCM;
          ELSE IF MAJGRP = "Standard/Extra Users" THEN LINEUP=5;
          ELSE IF MAJGRP = "Purchased Care Users" THEN LINEUP=6;         ***JSO 07/28/08 Added
Purchased Care Users;
          ELSE IF MAJGRP = "Active Duty" THEN LINEUP=7;
          ELSE IF MAJGRP = "Active Duty Dependents" THEN LINEUP=8;
          ELSE IF MAJGRP = "Retirees and Dependents" THEN LINEUP=9;
          ELSE IF MAJGRP = "All Users" THEN LINEUP=10;

          IF REGION = "Benchmark" THEN LINEUP2=1;
          ELSE IF UPCASE(REGION) = 'USA MHS' THEN DO;
             LINEUP2=2;
             REGION = 'US MHS';
             REGCAT = 'US MHS';
          END;
          ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP2=3;
          ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP2=4;
          ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP2=5;
          ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP2=6;
          ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP2=7;
          ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP2=8;
          ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP2=9;
          ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP2=10;
          ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP2=11;
```

```
        ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP2=12;
        ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP2=13;
        ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP2=14;
        ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP2=15;
        ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP2=16;
        ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP2=17;
        ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP2=18;
        ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP2=19;
        ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP2=20;
        ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP2=21;
        ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP2=22;
        ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP2=23;
        ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP2=24;


    RUN;    ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

    PROC SORT;
    BY LINEUP LINEUP2;
    RUN;

    %MACRO MKHTML(var1,var2,var3,seppage,var4);


    /*** Determine some macro variables ***/
    %if &prefix=f %then %do;
      %let width1=640;
      %let width2=640;
      %let border=0;
    %end;
    %else %do;
      %let width1=90%;
      %let width2=85%;
      %let border=1;
    %end;



    %let number_html_files=%EVAL(1+&number_html_files.);


    /** Load in data **/
    DATA SUBSET;
      SET PRE_SUBSET;
      LENGTH FILEOUT1 $ 100;    /*MJS 02/11/04*/
      LENGTH FILEOUT2 $ 100;
      LENGTH FILEOUT3 $ 100;


      /*** VAR1 indicated major group ***/
      %if &var1.=0 %then %let major=%STR();
      %if &var1.=1 %then %let major=%STR(Prime Enrollees);
      %if &var1.=2 %then %let major=%STR(Enrollees with Military PCM);
      %if &var1.=3 %then %let major=%STR(Enrollees with Civilian PCM);   ***JSO 10/31/07 Added
Civilian PCM;
      %if &var1.=4 %then %let major=%STR(Standard/Extra Users);          ***(var1.=3), and
changed 3-7 back to 4-8;
      %if &var1.=5 %then %let major=%STR(Purchased Care Users);          ***JSO 07/28/08 Added
Purchased Care Users;
      %if &var1.=6 %then %let major=%STR(Active Duty);
      %if &var1.=7 %then %let major=%STR(Active Duty Dependents);
      %if &var1.=8 %then %let major=%STR(Retirees and Dependents);
      %if &var1.=9 %then %let major=%STR(All Users);


      %if &var1.=0 %then %do;
         /* RSG 02/2005 - CONUS WILL NOW BE PART OF REGION LIST SO COMMENT OUT NEXT SECTION*/
         /* %if &var2.^=99 %then %do;
            IF SUBSTR(REGION,1,3)="USA" THEN DELETE;
         %end;*/

         %let comma=%STR();
         %let grpmsg=%STR();
      %end;
```

```
      %else %do;
         IF MAJGRP="&major.";      /*** Subset data by major group ***/
         %let comma=%STR(,);
         %let grpmsg=%STR(Click below to view this table by other groups);
      %end;


       /*** Create macro variables to refer to Component or Trend pages ***/
       %if &seppage.=2 %then %do;
           %let q=q;
           %let unq=;
           %let click_alt=Click for Component data;
           %let click_image=component.gif;
       %end;
       %else %do;
           %let q=;
           %let unq=q;
           %let click_alt=Click for Trend data;
           %let click_image=trend.gif;
       %end;


      FILEOUT1=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q..htm");        /** Main
html **/
      FILEOUT2=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.a.htm");     /** Header
html **/
      FILEOUT3=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.b.htm");       /** Data
html **/
        /*** Added &var4 to all file names for additional sub-benefit trend pages
             08-07-2003 RSG ***/
          /*MJS 01/28/04 Added &outdir.\ to above filenames*/

         /*** Added 07-12-2001 MAB  If creating Excel then don't create HTML ***/
         %if &outxls.=1 %then %do;
           %let fileout1= NUL;
           %let fileout2= NUL;
           %let fileout3= NUL;
         %end;
         %else %do;
           call symput('fileout1',FILEOUT1);
           call symput('fileout2',FILEOUT2);
           call symput('fileout3',FILEOUT3);
         %end;



      /*------------------------*/
      /* 2000/11: begin xls code */
      /*------------------------*/

      /*MJS 01/28/04 Added &outdir.\ to filename*/
      FILEOUTX=COMPRESS("&outdir.\p&var1.-&var2.-&var3.-&var4.&q..xls");              /* create
run-specific xls file */
      CALL SYMPUT('fileoutX',FILEOUTX);                                          /* via global macro
vars        */
      %if &seppage. ne 2 %then %do;
         %if &var3 = 0 or &var3 = 1 or &var3 = 3 or &var3 = 11 %then %do;
            TEMPLATE=COMPRESS("Templates\Template&var3._trans.xls");
         %end;
         %else %do;
            TEMPLATE=COMPRESS("Templates\Template&var3..xls");
         %end;
      %end;
      /* MER 10/24/2009 Fix no longer needed */
      /*%else %if &var3 = 4 %then %do;
         TEMPLATE=COMPRESS("Templates\Template_trend2.xls");
      %end;*/
      %else %if &var3 = 1 or &var3 = 3 %then %do;
         TEMPLATE=COMPRESS("Templates\Template_trend_trans.xls");
      %end;
      %else %do;
         TEMPLATE=COMPRESS("Templates\Template_trend.xls");
      %end;
```

```
       CALL SYMPUT('template',TEMPLATE);                              /* identify which
template xls file */
       /*------------------------*/
       /* 2000/11: end xls code  */
       /*------------------------*/


       /*** VAR3 dictates type of benefit heading ***/
       %if &var3=0 %then %do;
         %let headvar=BENEFIT;
       %end;
       %else %do;          /*MJS 07/30/03 Added else do - was %else %let headvar=BENTYPE;*/
         %if &seppage.=2 or &var3=6 or &var3=7 or &var3=8 or &var3=9 %then %let headvar=TIMEPD;
/*MJS 08/01/03 Added &var3 code*/
         %else %let headvar=BENTYPE;
       %end;

       /*** clean up headvar variable ***/
       /***IF BENTYPE="Trend" THEN BENTYPE="Trend<BR>% change";***/

       /*** Link to XLS file ***/
       HREFXLS=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..xls");
       call symput('hrefxls',HREFXLS);
     RUN;


     /*** Subset data by region ***/
     DATA SUBSET2;
       SET SUBSET;

       %if &var2.=0 %then %do;    /** 0 = All regions **/
          IF REGION=REGCAT;       /** Just do All Region table **/
           %let sub_regs=%STR(All Regions);
       %end;

       %else %if &var2.=1 %then %do;
          IF UPCASE(REGION)="US MHS"; /* MER 08/27/09 changed to US MHS */
           %let sub_regs=%STR(US MHS);
       %end;
       %else %if &var2.=2 %then %do;
          IF UPCASE(REGION)="ARMY";
           %let sub_regs=%STR(ARMY);
       %end;
       %else %if &var2.=3 %then %do;
          IF UPCASE(REGION)="NAVY";
           %let sub_regs=%STR(NAVY);
       %end;
       %else %if &var2.=4 %then %do;
          IF UPCASE(REGION)="AIR FORCE";
           %let sub_regs=%STR(AIR FORCE);
       %end;

       %else %if &var2.=5 %then %do;
          IF UPCASE(REGION)="OTHER";
           %let sub_regs=%STR(OTHER);
       %end;
       %else %if &var2.=6 %then %do;
          IF UPCASE(REGION)="NORTH";
           %let sub_regs=%STR(NORTH);
       %end;
       %else %if &var2.=7 %then %do;
          IF UPCASE(REGION)="NORTH ARMY";
           %let sub_regs=%STR(North Army);
       %end;
       %else %if &var2.=8 %then %do;
          IF UPCASE(REGION)="NORTH NAVY";
           %let sub_regs=%STR(North Navy);
       %end;

       %else %if &var2.=9 %then %do;
          IF UPCASE(REGION)="NORTH AIR FORCE";
           %let sub_regs=%STR(North Air Force);
       %end;
       %else %if &var2.=10 %then %do;
```

```
            IF UPCASE(REGION)="NORTH OTHER";
             %let sub_regs=%STR(North Other);
        %end;
        %else %if &var2.=11 %then %do;
            IF UPCASE(REGION)="SOUTH";
             %let sub_regs=%STR(SOUTH);
        %end;
        %else %if &var2.=12 %then %do;
            IF UPCASE(REGION)="SOUTH ARMY";
             %let sub_regs=%STR(South Army);
        %end;

      %else %if &var2.=13 %then %do;
            IF UPCASE(REGION)="SOUTH NAVY";
             %let sub_regs=%STR(South Navy);
      %end;
      %else %if &var2.=14 %then %do;
            IF UPCASE(REGION)="SOUTH AIR FORCE";
             %let sub_regs=%STR(South Air Force);
      %end;
      %else %if &var2.=15 %then %do;
            IF UPCASE(REGION)="SOUTH OTHER";
             %let sub_regs=%STR(South Other);
      %end;
      %else %if &var2.=16 %then %do;
            IF UPCASE(REGION)="WEST";
             %let sub_regs=%STR(WEST);
      %end;

      %else %if &var2.=17 %then %do;
            IF UPCASE(REGION) = "WEST ARMY";
             %let sub_regs=%STR(West Army);
      %end;
      %else %if &var2.=18 %then %do;
            IF UPCASE(REGION) = "WEST NAVY";
             %let sub_regs=%STR(West Navy);
      %end;
      %else %if &var2.=19 %then %do;
            IF UPCASE(REGION) = "WEST AIR FORCE";
             %let sub_regs=%STR(West Air Force);
      %end;
      %else %if &var2.=20 %then %do;
            IF UPCASE(REGION) = "WEST OTHER";
             %let sub_regs=%STR(West Other);
      %end;
      %else %if &var2.=21 %then %do;
            IF UPCASE(REGION) = "OVERSEAS";
             %let sub_regs=%STR(OVERSEAS);
      %end;
      %else %if &var2.=22 %then %do;
            IF UPCASE(REGION) = "OVERSEAS EUROPE";
             %let sub_regs=%STR(Overseas Europe);
      %end;
      %else %if &var2.=23 %then %do;
            IF UPCASE(REGION) = "OVERSEAS PACIFIC";
             %let sub_regs=%STR(Overseas Pacific);
      %end;

    RUN;


    /*** Subset data by Benefit ***/
    DATA SUBSET3;
      SET SUBSET2;

    %if &var3.=0 %then %do;   /** 0=All Benefits **/
        IF BENTYPE="Composite" and TIMEPD="&currentperiod.";   ***MJS 07/03/03 Changed from IF
BENTYPE="&currentperiod.";
    %end;
    %else %if &var3.=1 %then %do;   ***MJS 4/23/03 Changed 2 to 1;
        IF BENEFIT="Getting Needed Care";

        /*** # of columns for this benefit table ***/
        %let columns=%EVAL(3+&qtrs.); ***MER ADDED 3+ instead of 5+ 4/21/09;
```

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```
      %end;
      %else %if &var3.=2 %then %do;   ***MJS 4/23/03 Changed 3 to 2;
         IF BENEFIT="Getting Care Quickly";
         %let columns=%EVAL(3+&qtrs.); ***MER ADDED 3+ instead of 5+ 4/21/09;
      %end;
      %else %if &var3.=3 %then %do;   ***MER 4/21/09 Changed 4 to 3;
         IF BENEFIT="How Well Doctors Communicate";
         %let columns=%EVAL(5+&qtrs.);
      %end;
      %else %if &var3.=4 %then %do;   ***MER 4/21/09 Changed 5 to 4;
         IF BENEFIT="Customer Service";
         %let columns=%EVAL(3+&qtrs.); ***MER ADDED 3+ instead of 4+ 4/21/09;
      %end;
      %else %if &var3.=5 %then %do;   ***MER 4/21/09 Changed 6 to 5;
         IF BENEFIT="Claims Processing";
         %let columns=%EVAL(3+&qtrs.);
      %end;
      %else %if &var3.=6 %then %do;   ***MER 4/21/09 Changed 7 to 6;
         IF BENEFIT="Health Plan";
         %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
      %end;
      %else %if &var3.=7 %then %do;   ***MER 4/21/09 Changed 8 to 7;
         IF BENEFIT="Health Care";
         %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
      %end;
      %else %if &var3.=8 %then %do;   ***MER 4/21/09 Changed 9 to 8;
         IF BENEFIT="Personal Doctor";      ***MJS 02/04/2003;
         %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
      %end;
      %else %if &var3.=9 %then %do;   ***MER 4/21/09 Changed 10 to 9;
         IF BENEFIT="Specialty Care";
         %let columns=%EVAL(2+&qtrs.);      ***DKB ADDED 2+ instead of 1+ for Trend 5/3/2002;
      %end;
      %else %if &var3.=10 %then %do;  ***MER 4/21/09 Changed 11 to 10;
         IF  BENEFIT="Preventive  Care";      ***MJS  04/30/03  Changed  from  5+  to  6+  because
Cholesterol Testing was added;
         %let columns=%EVAL(5+&qtrs.);    ***DKB CHANGED FROM 6+ to 5+ because removed flu shot
5/7/02;
      %end;
      %else %if &var3.=11 %then %do;  ***MER 4/21/09 Changed 12 to 11;
         IF BENEFIT="Healthy Behaviors";
         %let columns=%EVAL(4+&qtrs.);
      %end;

      /*** Set macro variable ***/
      %if &var3.=0 %then %do;
         %let sub_ben=%STR(&currentperiod. Composite Scores);
         %let columns=12;    ***MER 4/21/09 Changed from 13 to 12;
      %end;
      %else %do;
        call symput('sub_ben',BENEFIT);
      %end;


      /*** Determine number of columns for sub-benefits  ***/
      /*** Equals cols - (x for qtrs  - 1 for stub column) ***/
      %let subcols=%EVAL(&columns.-&qtrs.-2);                      ***DKB CHANGED FROM -1 to -2
5/3/2002;

      /*** Determine number of columns less 1st (stub) column ***/
      %let columns_less1=%EVAL(&columns.-1);

   RUN;



   /*** Added 4-3-01 MAB ***/
   DATA SUBSET4;
     SET SUBSET3;

     WIDTH_COL1=120; /** Set width of column 1 **/

     IF BENTYPE="Composite" THEN WIDTH3=90;  ***DKB ADDED TREND and changed width3 from 120 to
90 4/30/2002***;
```

```
      ELSE WIDTH3=90;                                    ***MJS 07/03/03 Changed from BENTYPE IN any
period and Est. Quarterly Rate of Change;

      /** Deal with some special cases **/
      IF BENEFIT="Preventive Care" THEN DO;
          IF BENTYPE="Composite" THEN WIDTH3=.;    ***DKB ADDED TREND 4/30/2002***;
          ELSE WIDTH3=80;                            ***MJS 07/03/03 Changed from BENTYPE IN any
period and Est. Quarterly Rate of Change;
      END;
      %if &prefix.=p %then %do;
          WIDTH3=.;
      %end;

      %else %if &var3.=0 %then %do;
   /*    WIDTH_COL1=.;
          WIDTH3=40;*/
   /* MER 05/02/09 new values for V4 frames */
          WIDTH_COL1=80;
          /* MER 05/02/09 */
          %if &var2.=0 %then %do;
             WIDTH3=44;
          %end;
          %else %do;
             WIDTH3=43;
          %end;
      %end;


          /*** Added 5-7-2001 mab ***/

      RUN;

      /****************************************************************/
      /****   Put out Header rows of table                       ****/
      /****************************************************************/
      DATA HTML;
        SET SUBSET4;
        LENGTH HREFBACK $100;   /*MJS 02/11/04*/

        IF REGION IN("Benchmark") OR MAJGRP IN("Benchmark");

        /** Determine where back button should link to **/
        %if &var1.=0 %then %do;
           HREFBACK=COMPRESS("&prefix.8-0-0-0.htm");   ***MJS 05/06/03 Changed 8-0-0 to 7-0-0;
                                                       ***JSO 11/12/07 Changed 7-0-0 to 8-0-0;
        %end;
        %else %do;
           HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
        %end;

        /*** Create macro variable date with today's date ***/
        DATETIME=DATETIME();
        CALL SYMPUT ('DATETIME',left(put(datetime,datetime20.)));
        DROP DATETIME;

      RUN;

      /*** ÛÛ FRAMES SECTION ÛÛ ***/
      %if &prefix=f %then %do;

         /*** Make frameset page split frames smaller on all ratings pages ***/

       %if &var3.=0 %then %do;
            %let splitpixel=228;
          %end;
          %else %if &var3.=1 OR &var3.=2 %then %do;   ***MJS 4/23/03 Changed 2&3 to 1&2;
            %let splitpixel=211;
          %end;
          %else %if &var3.=5 OR &var3.=11 %then %do;  ***MER 4/21/09 Changed 6&12 to 5&11;
            %let splitpixel=181;
          %end;
          %else %if &var3.=3 %then %do;    ***MER 4/21/09 Changed 4 to 3;
            %let splitpixel=196;
          %end;
```

```
        %else %if &var3.=4 %then %do;   ***MER 4/21/09 Changed 5 to 4;
             %let splitpixel=221;
        %end;
        %else %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
             %let splitpixel=158;   ***MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;
        %end;
        %else %if &var3.=10 %then %do;   ***MER 4/21/09 Changed 11 to 10;
             %let splitpixel=192;
        %end;

        %if &SEPPAGE.=2 %then %do;
             %let splitpixel=157;
        %end;


     /*** Create frameset page HTML page ***/
     DATA _NULL_;
       FILE "&FILEOUT1.";
       PUT "<html>";
       PUT "<frameset rows='&splitpixel.,*'>";
        %if &seppage.=2 %then %do;
          PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.qa.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
          PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.qb.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
        %end;
        %else %do;
          PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.a.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
          PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.b.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
        %end;


        PUT "</frameset></html>";
     RUN;


     /*** Since done making frameset page then assign fileout1 = frame 1 ***/
     %let fileout1=&fileout2.;
     %if &seppage.=1 %then %do;
         %let fileout1=&fileout2.;
      %end;
      %else %if &seppage.=2 %then %do;
         %let fileout1=&fileout2.;
      %end;

  %end;


  /*** Initialize HTML page ***/
  DATA _NULL_;
    FILE "&FILEOUT1.";

    PUT "<! Created &datetime.>";
    PUT "<html><head><title>";
    PUT "&major. &comma. &sub_ben., &sub_regs.";
    PUT "</title></head>";
    PUT    "<body   bgcolor='#999999'   text='#000099'   link='#660066'   alink='#660066'
vlink='#996699'>";

    /*** link to printer friendly version moved, 10/25/2001 C.Rankin ***/


  RUN;

  /*------------------------*/
  /* 2000/11: begin xls code */
  /*------------------------*/
  %if &outxls.=1 %then %do;
    X "COPY &template. &fileoutX.";                              /* copy template xls to
run-specific xls file */
     DATA _NULL_;
       X=SLEEP(3);
```

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```
      RUN;
      X "START &fileoutX.";
      DATA _NULL_;
        X=SLEEP(3);
      RUN;                                                    /* open run-specific xls file
*/
      FILENAME XLSTITLE DDE 'excel|Sheet1!R1C1:R2C20' NOTAB;        /* xls rows 1 & 2 (titles)
*/
      FILENAME XLSDATA DDE 'excel|Sheet1!R6C1:R100C20' NOTAB;         /* xls rows 6+ (body of
table)           */
   %end;
   /*------------------------*/
   /* 2000/11: end xls code   */
   /*------------------------*/




   /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
   /*** If ALL benefits (VAR3=0) then do special column headers ***/
   %if &var3.=0 %then %do;
   DATA _NULL_;
     SET HTML END=EOF;
     *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

     IF _N_=1 THEN DO;

          FILE "&FILEOUT1." MOD;       /* 2000/11: moved file stmt inside if stmt */

           /*** put table title ***/
           /**PUT  "<h2><center><font  face='&fontface.'>&major., &sub_regs. <br> &sub_ben.
</font></center></h2>"**/

           /** MF Changes ROW 1 **/
           PUT   "<center><table    border='&border.'   cellpadding='2'   cellspacing='0'
bgcolor='#D8D8D8' colspan=12 width='&width1.'>";
           PUT "<tr bgcolor='white'>";
           PUT "       <td  colspan='6'  valign='top'  bgcolor='#999999'><img  border='0'
height='25' width='242' src=&logo.></td>";
           PUT "    <td colspan='6' align='right' valign='bottom' bgcolor='#999999'>";
           PUT "           <div align='right'>";
           PUT "             <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";

           /*** 4-17 MAB added JS code to go back ***/
           PUT "&goback.";

           PUT "                    <noscript><a href=""" HREFBACK   +(-1)  """ &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
           PUT "           &htmlsp. &htmlsp.";
           PUT "              <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
           PUT "       </td>";
           PUT "</tr>";

           /** MF Changes ROW 2 **/
           /** Modified 2-2 MAB to better align title **/
           PUT "<tr>";
           PUT "       <td valign='center' align='center' colspan='12' bgcolor='#D8D8D8'>";
           PUT "                <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs.<br>";
           PUT "                &sub_ben.</b></font>";
           PUT "       </td>";
           PUT "</tr>";

           /*** Print out 3rd row ***/
           /*** ÛÛ FRAMES SECTION ÛÛ ***/


            /***here***/

           %if &prefix=f %then %do;
               PUT "<tr bgcolor= &hdcolr.>";
```

```
                         /**RSG 02/2005 add in a dummy gif to align titles and comment out extra
cell**/
                 /**PUT "<td width=70>&htmlsp.</td>";**/
                 PUT    "<td   width=40   colspan=1><IMG   SRC='&imgdir.\dummy.gif'   ALT='   '
BORDER=0></td>";
                 PUT "<td width=80 colspan=2><IMG SRC='&imgdir.\eoa.gif'ALT='Ease of Access'
BORDER=0></td>";
                 PUT    "<td    width=185    colspan=3><IMG    SRC='&imgdir.\com_cus_ser.gif'
ALT='Communication and Customer Service' BORDER=0></td>";
                 PUT "<td width=160 colspan=4><IMG SRC='&imgdir.\ratings0.gif' ALT='Ratings'
BORDER=0></td>";
                 PUT     "<td     width=50     colspan=1><IMG     SRC='&imgdir.\prevention.gif'
ALT='Prevention' BORDER=0></td>";
                 PUT  "<td  width=80  colspan=1><IMG  SRC='&imgdir.\healthy.gif'  ALT='Healthy
Behaviors' BORDER=0></td>";
                 PUT "</tr>";
                 PUT "<tr bgcolor= &hdcolr.>";
             %end;
             %else %do;
                 PUT "<tr bgcolor= &hdcolr.>";
                 PUT "<td>&htmlsp.</td>";

                 /*** MAB rearranged 2/11/2005 ***/
                 PUT  "<td  align='center'  valign='bottom'  colspan=2><font  face='&fontface.'
size='2'><b>Ease of Access</b></font></td>";
                 PUT  "<td  align='center'  valign='bottom'  colspan=3><font  face='&fontface.'
size='2'><b>Communication and Customer Service</b></font></td>";
                 PUT  "<td  align='center'  valign='bottom'  colspan=4><font  face='&fontface.'
size='2'><b>Ratings</b></font></td>";
                 PUT  "<td  align='center'  valign='bottom'  colspan=1><font  face='&fontface.'
size='2'><b>Prevention</b></font></td>";
                 PUT  "<td  align='center'  valign='bottom'  colspan=1><font  face='&fontface.'
size='2'><b>Behaviors</b></font></td>";
                 PUT "</tr>";
                 PUT "<tr bgcolor= &hdcolr.>";
             %end;


             /*** Print out 1st column of 4th row ***/
             /*** ÛÛ FRAMES SECTION ÛÛ ***/
             %if &prefix=f %then %do;
                 *PUT "<td width=80>&htmlsp.</td>";
                 /* MER 05/02/09 trying new values for V4 frames */
                 PUT "<td width=125>&htmlsp.</td>";
                 /**RSG 02/2005 Added in dummy gif to align title**/
             /*    PUT "<td align='center' valign='bottom'><IMG SRC='&imgdir.\dummy.gif'ALT=' '
BORDER=0>";*/
             %end;
             %else %do;
                 PUT "<td width='8%'><font face='&fontface.'>&htmlsp.</font></td>";
             %end;



             /*** MAB 2/11/2005 ***/
             bennum=1;  /** index to all 11 benefits **/



             /*------------------------*/
             /* 2000/11: begin xls code */
             /*------------------------*/
             %if &outxls.=1 %then %do;
               FILE XLSTITLE;
               PUT "&major. &comma. &sub_regs.";
               PUT "%cmpres('&sub_ben.')";
             %end;
             /*------------------------*/
             /* 2000/11: begin xls code */
             /*------------------------*/
      END;

   FILE "&FILEOUT1." MOD ;                   /* 2000/11: refer back to htm file */
```

```
      /*** Put Benefits across columns (Continuation of 4th row) ***/
      HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-"||bennum||"-&var4..htm");


   /** If TOTAL benefit then don't have HREF **/
   /*** ÛÛ FRAMES SECTION ÛÛ ***/
   %if &prefix=f %then %do;
     IF BENNUM=1 OR BENNUM=2 OR BENNUM=3 OR BENNUM=4 OR BENNUM=11 THEN DO;
        IMAGE=COMPRESS("&imgdir.\image0_"||bennum||"_trans.gif");
     END;
     ELSE DO;
        IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
     END;
     IF      BENNUM=0      THEN      PUT      "<td     align='center'    valign='bottom'><IMG
SRC='&imgdir.\image0_0.gif' alt='Total' BORDER=0></td>";
        ELSE PUT "<td align='center' valign='bottom'><a href="" HREF +(-1) "" &target.><IMG
SRC='" IMAGE '" alt='" BENEFIT '" BORDER=0></a></td>";

   %end;
   %else %do;
        IF   BENNUM=0   THEN   PUT   "<td   width='8%'   align='center'   valign='bottom'><font
face='&fontface.'size='1'>" &HEADVAR. "</font></td>";
        ELSE  IF  BENNUM<5  OR  BENNUM=11  THEN  PUT   "<td   width='8%'   align='center'
valign='bottom'><font face='&fontface.'size='1'><a href="" HREF +(-1) "" &target.>" &HEADVAR.
+(-1) "<b>#</b></a></font></t
        ELSE     PUT     "<td     width='8%'     align='center'     valign='bottom'><font
face='&fontface.'size='1'><a href="" HREF +(-1) "" &target.>" &HEADVAR. "</a></font></td>";
     %end;


   bennum+1;


   IF EOF THEN DO;
     PUT "</tr>";
     /***  2-2 MAB removed scale row ***/
   END;

RUN;
%end;

/*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
/*** If Sub-benefit (VAR3^=0) then do differently ***/
/*** If not separate page (SEPPAGE=0) for quarterly info then do as before ***/
%else %if &seppage.=0 OR &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                              ***MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;

DATA _NULL_;
  SET HTML END=EOF;
  *LENGTH HREF $ 250;    /*MJS 01/29/04 Commented out statement*/

  COLUMNS=&columns.;
  SPAN1=ROUND(COLUMNS/2,1);
  SPAN2=COLUMNS-SPAN1;


  IF _N_=1 THEN DO;

        FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */


        /** MF Changes ROW 1 **/
        PUT    "<center><table    border='&border.'    cellpadding='2'    cellspacing='0'
bgcolor='#D8D8D8' width='&width2.'>";
        PUT "<tr bgcolor='white'>";
        PUT "      <td colspan="" SPAN1 +(-1) "" valign='top' bgcolor='#999999'><img
border='0' height='25' width='242' src=&logo.></td>";
        PUT "          <td   colspan="" SPAN2 +(-1) ""  align='right'  valign='bottom'
bgcolor='#999999'>";
        PUT "          <div align='right'>";
        PUT "            <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";

        /*** 4-17 MAB added JS code to go back ***/
```

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```
            PUT "&goback.";

            PUT "                    <noscript><a href=""" HREFBACK   +(-1) """ &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
            PUT "            &htmlsp. &htmlsp.";
            PUT "              <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
            PUT "      </td>";
            PUT "</tr>";

            /** MF Changes ROW 2 **/
            /** Modified 2-2 MAB to better align title **/
            PUT "<tr>";
            PUT "            <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
            PUT "                    <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";

            /*** If ratings then don't display reference period ***/
            %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                    ***MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;
                PUT "                &sub_ben.</b></font>";
            %end;
            %else %do;
                PUT "                &sub_ben.<BR>&currentperiod.</b></font>";
            %end;


            PUT "        </td>";
            PUT "</tr>";


            /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

            %if &sub_head.=1 %then %do;
              /** 3rd Row ***/
              /** ÛÛ FRAMES SECTION ÛÛ ***/
              %if &prefix=f %then %do;
                    PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                    /*** If sub-benefits then output sub-benefit columns ***/
                    %if &subcols.^=0 %then %do;
                      IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                      PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG  SRC="
IMAGE " alt='" BENEFIT "' BORDER=0></td>";
                      PUT    "<td   align='center'   valign='bottom'   colspan=&qtrs.><IMG
SRC='&imgdir.\composite.gif' ALT='Composite' BORDER=0></td></tr>";
                    %end;
                    %else %do;
                      PUT    "<td   align='center'   valign='bottom'   colspan=&qtrs.><IMG
SRC='&imgdir.\border_rating.gif' ALT='Ratings' BORDER=0></td></tr>";
                    %end;
              %end;
              %else %do;
                    PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                    /*** If sub-benefits then output sub-benefit columns ***/
                    %if &subcols.^=0 %then %do;
                      PUT   "<td   align='center'   valign='bottom'   colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                      PUT   "<td   align='center'   valign='bottom'   colspan=&qtrs.><font
face='&fontface.'><b>Composite</b></font></td></tr>";
                    %end;
                    %else %do;
                      PUT   "<td   align='center'   valign='bottom'   colspan=&qtrs.><font
face='&fontface.'><b>Ratings</b></font></td></tr>";
                    %end;
              %end;
            %end;


            /*** 4th Row start (column 1) ***/
            /*** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
              PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
```

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```
                             PUT   "<td  align='center'  valign='bottom'><img  src='&imgdir.\blank_120_50.gif'
border=0></td>";
                  %end;
                  %else %do;
                     PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
                     PUT "<td width='10%'>&htmlsp.</td>";
                  %end;



                  /*------------------------*/
                  /* 2000/11: begin xls code */
                  /*------------------------*/
                  %if &outxls.=1 %then %do;
                     FILE XLSTITLE;
                     PUT "&major. &comma. &sub_regs.";
                     PUT "%cmpres('&sub_ben.')";
                  %end;
                  /*------------------------*/
                  /* 2000/11: begin xls code */
                  /*------------------------*/
         END;

         FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
         /*** Print out column headings ***/

            HREF=COMPRESS("..\html\help.htm#q&var3.");
            HREF1=COMPRESS("..\html\help.htm#trend");      /*7-29-2002 DKB ADDED LINK FOR TREND
SECTION OF HELP FILE*/



         /*** 4th Row (columns 2+) ***/
         /*** If quarter column then HREF link is different ****/
         /*** ÛÛ FRAMES SECTION ÛÛ ***/
         %if &prefix=f %then %do;
            IF   _N_>&subcols.      THEN    IMAGE=COMPRESS("&imgdir.\col"||_N_-&subcols.||".gif");
*DKB CHANGED IMAGE NAME FROM QTR TO COL;
            ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");

            /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */   ***MJS 07/03/03 Changed
BENTYPE to TIMEPD;
            IF  TIMEPD  NE  "Est.  Quarterly  Rate  of  Change"  THEN  PUT  "<td  align='center'
valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='" IMAGE "' alt='" TIMEPD "'
BORDER=0></a></td>";
            ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF1 +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
         %end;
         %else %do;
            /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */   ***MJS 07/03/03 Changed
BENTYPE to TIMEPD;
            IF TIMEPD NE "Est. Quarterly Rate of Change" THEN PUT "<td width='10%' align='center'
valign='bottom'><font face='&fontface.' size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR.
"</a></font><
            ELSE  PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF1 +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
         %end;



         IF EOF THEN DO;
           PUT "</font></tr>";
           /***  2-2 MAB removed scale row ***/
         END;

      RUN;
      %end;

      /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
      /*** Added MAB 11-20-2000 ***/
      /*** If Sub-benefit then do differently ***/
      /*** If separate page (SEPPAGE=1) then create 1st of 2 HTML files ***/
      /*** 1 for data without qtrly info and 1 for just qtrly info ***/
      %else %if &seppage.=1 %then %do;
```

```
      /*** 8-7-2003 Mark Brinkley ***/
      DATA HTML2;
        SET HTML;
        IF TIMEPD="&currentperiod.";
      RUN;

      /*** Remove qtrs from column counts ***/
      %let columns=%EVAL(&columns.-&qtrs.);

      /*** Do sub-benefit page without any qtrly info ***/
      DATA _NULL_;
        SET HTML2 END=EOF;


      /*** Since spliting up table need to delete some records ***/
      /*** Modified 2-2 MAB to deal with new period values **/
      IF BENTYPE="Composite" THEN DELETE; ***DKB ADDED TREND 4/30/2002***;
                                      ***MJS 07/03/03 Changed from BENTYPE  IN any period
and Est. Quarterly Rate of Change;

      FILE "&FILEOUT1." MOD ;

      COLUMNS=&columns.;
      SPAN2=ROUND(COLUMNS/2,1);
      SPAN1=COLUMNS-SPAN2;


      IF _N_=1 THEN DO;

            FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */


            /** MF Changes ROW 1 **/
            PUT    "<center><table    border='&border.'    cellpadding='2'    cellspacing='0'
bgcolor='#D8D8D8' width='&width2.'>";
            PUT "<tr bgcolor='white'>";
            PUT "      <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img
border='0' height='25' width='242' src=&logo.></td>";
            PUT "        <td  colspan=""" SPAN2  +(-1)  """  align='right'  valign='bottom'
bgcolor='#999999'>";
            PUT "          <div align='right'>";
              /** RSG - 09/02/03 Second set of trend pages need to refer to var4=0 pages **/
            PUT "             <a  href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm'
&target.><img src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
            PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. ";

                  /*** 4-17 MAB added JS code to go back ***/
            PUT "&goback.";
            PUT "             <noscript><a  href=""" HREFBACK   +(-1)  """  &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
            PUT "          &htmlsp. ";
            PUT "          <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
                PUT "    </td>";
            PUT "</tr>";

            /** MF Changes ROW 2 **/
            /** Modified 2-2 MAB to better align title **/
            PUT "<tr>";
            PUT "          <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
            PUT "             <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";


            PUT "             &sub_ben.<BR>&currentperiod.</b></font>";



            PUT "        </td>";
            PUT "</tr>";
```

```
                 /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

             %if &sub_head.=1 %then %do;
                /*** 3rd Row ***/
                /*** ÛÛ FRAMES SECTION ÛÛ ***/
                %if &prefix=f %then %do;
                    PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                    IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                    PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
                %end;
                %else %do;
                    PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                    PUT    "<td    align='center'    valign='bottom'    colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                %end;
             %end;

             /*** 4th Row start (column 1) ***/
             /*** ÛÛ FRAMES SECTION ÛÛ ***/
             %if &prefix=f %then %do;
               PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
               PUT  "<td  align='center'  valign='bottom'><img  src='&imgdir.\blank_130_50.gif'
border=0></td>";
             %end;
             %else %do;
               PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
               PUT "<td width='10%'>&htmlsp.</td>";
             %end;


       qnum=1; /**RSG 08/07/03 Added as counter to use to for link to the trend pages**/

             /*------------------------*/
             /* 2000/11: begin xls code */
             /*------------------------*/
             %if &outxls.=1 %then %do;
               FILE XLSTITLE;
               PUT "&major. &comma. &sub_regs.";
               PUT "%cmpres('&sub_ben.')";
             %end;
             /*------------------------*/
             /* 2000/11: begin xls code */
             /*------------------------*/
       END;

       FILE "&FILEOUT1." MOD ;              /* 2000/11: refer back to htm file */
       /*** Print out column headings ***/

       /*HREF=COMPRESS("help.htm#q&var3.");   */

       HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-&var3.-"||qnum||"&unq..htm");
        *** RSG 08/07/03 Use qnum counter to refer to subbenefit trend pages;

    *****************************************;
      /*** 4th Row (columns 2+) ***/
      /*** If quarter column then HREF link is different ****/
      /*** ÛÛ FRAMES SECTION ÛÛ ***/
      %if &prefix=f %then %do;
         %if &var3 = 1 or &var3 = 3  %then %do;
       IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||"_trans.gif");
         %end;
         %else %if &var3 = 11 %then %do;
            IF _N_ < 3 THEN IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||"_trans.gif");
            ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
         %end;
         %else %do;
       IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
         %end;
         PUT  "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
      %end;
      %else %do;
```

```
          %if &var3 = 1 or &var3 = 3 %then %do;
              PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "<b>#</b></a></font></td>";
          %end;
          %else %if &var3 = 11 %then %do;
              IF  _N_  <  3  THEN  PUT  "<td  width='10%'  align='center'  valign='bottom'><font
face='&fontface.'   size='1'><a   href="""   HREF   +(-1)   """   &target.>"   &HEADVAR.
"<b>#</b></a></font></td>";
              ELSE PUT "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
          %end;
          %else %do;
              PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
          %end;
      %end;

      qnum+1; *** RSG 08/07/03 Added to increase the counter;

      IF EOF THEN DO;
        PUT "</font></tr>";
        /***  2-2 MAB removed scale row ***/
      END;


    RUN;
    %end;

    /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
    /*** If separate page (SEPPAGE=2) then create 2nd of 2 HTML files ***/
    /*** 1 for data without qtrly info and 1 for just qtrly info ***/
    %else %if &seppage.=2 %then %do;


    /*** Keep only qtrs in column counts ***/
    /**DKB CHANGED FROM +1 to +3 on 4/29/2002 ***/
    %let columns=%EVAL(&qtrs.+2);  /** MAB changed to 2   6-19-2002 **/


    /*** Then do sub-benefit page with just qtrly info ***/
    DATA JUSTQTR;
      SET HTML;
      /*** Since spliting up table need to delete some records ***/
      /*** Modified 2-2 MAB to deal with new period values **/

      *  IF BENTYPE="Composite";   ***DKB ADDED TREND on 4/29/2002 to account for trend col;
      %if &var4. = 0 %then %do;  **RSG ADDED TREND FOR BENTYPES on 8/7/2003 - select
                                      records appropriate for bentype;
              IF BENTYPE="Composite";
      %end;
      %else %if &var4. ne 0 and BENTYPE ne "Composite" %then %do;
              %if &var3. = 1 %then %do;
                      %if &var4. = 1 %then %do;
                              IF BENTYPE = "Getting to See a Specialist";
                      %end;
                      %else %if &var4. = 2 %then %do;
                              IF BENTYPE = "Getting Treatment";
                      %end;
              %end;
              %else %if &var3. = 2 %then %do;
                      %if &var4. = 1 %then %do;
                              IF BENTYPE = "Wait for Routine Visit";
                      %end;
                      %else %if &var4. = 2 %then %do;
                              IF BENTYPE = "Wait for Urgent Care";
                      %end;
              %end;
              %else %if &var3. = 3 %then %do;
                      %if &var4. = 1 %then %do;
                              IF BENTYPE = "Listens Carefully";
                      %end;
                      %else %if &var4. = 2 %then %do;
                              IF BENTYPE = "Explains so You Can Understand";
                      %end;
```

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```
                     %else %if &var4. = 3 %then %do;
                             IF BENTYPE = "Shows Respect";
                     %end;
                     %else %if &var4. = 4 %then %do;
                             IF BENTYPE = "Spends Time with You";
                     %end;
              %end;
              %else %if &var3. = 4 %then %do;
                     %if &var4. = 1 %then %do;
                             IF BENTYPE = "Getting Information";
                     %end;
                     %else %if &var4. = 2 %then %do;
                             IF BENTYPE = "Courteous Customer Service";
                     %end;
              %end;
              %else %if &var3. = 5 %then %do;
                     %if &var4. = 1 %then %do;
                             IF BENTYPE = "Claims Handled in a Reasonable Time";
                     %end;
                     %else %if &var4. = 2 %then %do;
                             IF BENTYPE = "Claims Handled Correctly";
                     %end;
              %end;
              %else %if &var3. = 10 %then %do;
                     %if &var4. = 1 %then %do;
                             IF BENTYPE = "Mammography";
                     %end;
                     %else %if &var4. = 2 %then %do;
                             IF BENTYPE = "Pap Smear";
                     %end;
                     %else %if &var4. = 3 %then %do;
                             IF BENTYPE = "Hypertension";
                     %end;
                     %else %if &var4. = 4 %then %do;
                             IF BENTYPE = "Prenatal Care";
                     %end;
              %end;
              %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
                     %if &var4. = 1 %then %do;
                             IF BENTYPE = "Non-Smoking Rate";
                     %end;
                     %else %if &var4. = 2 %then %do;
                             IF BENTYPE = "Counselled To Quit";
                     %end;
                        %else %if &var4. = 3 %then %do;
                                IF BENTYPE = "Percent Not Obese";
                        %end;
              %end;
              call symput('sub2_ben',BENTYPE); **create macro var to use in sub-benefit
                                        trend pages (below) - RSG 08/07/03;
      %end;


     RUN;                          ***MJS 07/03/03 Changed from BENTYPE IN any period and Est.
Quarterly Rate of Change;

     DATA _NULL_;
       SET JUSTQTR END=EOF;
       *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

       FILE "&FILEOUT1." MOD ;

       COLUMNS=&columns.;
       SPAN2=ROUND(COLUMNS/2,1);
       SPAN1=COLUMNS-SPAN2;

       IF _N_=1 THEN DO;

             FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */

             /** MF Changes ROW 1 **/
             PUT   "<center><table   border='&border.'   cellpadding='2'   cellspacing='0'
bgcolor='#D8D8D8' width='&width2.'>";
             PUT "<tr bgcolor='white'>";
```

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```
          PUT "        <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img
border='0' height='25' width='242' src=&logo.></td>";
          PUT "           <td  colspan=""" SPAN2  +(-1)  """  align='right'  valign='bottom'
bgcolor='#999999'>";
          PUT "             <div align='right'>";
          PUT "                    <a  href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm'
&target.><img src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
          PUT "              <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";

          /*** 4-17 MAB added JS code to go back ***/
          PUT "&goback.";

          PUT "                   <noscript><a  href=""" HREFBACK   +(-1)  """  &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
          PUT "           &htmlsp.";
          PUT "             <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
          PUT "     </td>";
          PUT "</tr>";

          /** MF Changes ROW 2 **/
          /** Modified 2-2 MAB to better align title **/
          PUT "<tr>";
          PUT "            <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
          PUT "                 <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";

          /*** Since trend data don't display reference period ***/
          PUT "                &sub_ben.</b></font><br>";
          /*** For trend data for each benefit type, display benefit type - RSG 08/07/03***/
            %if &var4. ne 0 %then %do;
          PUT "                <font face='&fontface.' color='#3333cc' size='4'><b>";
            PUT "                  &sub2_ben.</b></font>";
            %end;
          PUT "          </td>";
          PUT "</tr>";


          /*** 3rd Row ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
          /**PUT "<td></td>"**/



          /*** 4th Row start (column 1) ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
          %if &prefix=f %then %do;
            PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
            PUT  "<td  align='center'  valign='bottom'><img  src='&imgdir.\blank_130_50.gif'
border=0></td>";
          %end;
          %else %do;
            PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
            PUT "<td width='10%'>&htmlsp.</td>";
          %end;



          /*------------------------*/
          /* 2000/11: begin xls code */
          /*------------------------*/
          %if &outxls.=1 %then %do;
            FILE XLSTITLE;
            PUT "&major. &comma. &sub_regs.";
              %if &var4. = 0 %then %do;
                  PUT "%cmpres('&sub_ben.')";
              %end;
              %else %do;
                  PUT "%CMPRES('&sub_ben. &comma. &sub2_ben.')";
              %end;
          %end;
          /*------------------------*/
```

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```
            /* 2000/11: begin xls code */
            /*------------------------*/
      END;

      FILE "&FILEOUT1." MOD ;                    /* 2000/11: refer back to htm file */
      /*** Print out column headings ***/


         LENGTH HREFf1 $250;
         LENGTH HREFf2 $250;
         LENGTH HREFf3 $250;
         LENGTH HREFf4 $250;

         LENGTH HREFp1 $250;
         LENGTH HREFp2 $250;
         LENGTH HREFp3 $250;
         LENGTH HREFp4 $250;

        LENGTH HREF5  $250;


         ****7-29-2002 DKB ADDED LINKS TO COMPONENT PAGES OF PREVIOUS QUARTERS FROM TREND
PAGE****;
         **********************THIS       WILL      NEED      TO      BE      UPDATED      EACH
QUARTER********************;
            ***FRAMES***;
            HREFf1=COMPRESS("..\Period1\f&var1.-&var2.-&var3.-0.htm");
            HREFf2=COMPRESS("..\Period2\f&var1.-&var2.-&var3.-0.htm");
            HREFf3=COMPRESS("..\Period3\f&var1.-&var2.-&var3.-0.htm");
            HREFf4=COMPRESS("f&var1.-&var2.-&var3.-0.htm");

            ***NO FRAMES***;
            HREFp1=COMPRESS("..\Period1\p&var1.-&var2.-&var3.-0.htm");
            HREFp2=COMPRESS("..\Period2\p&var1.-&var2.-&var3.-0.htm");
            HREFp3=COMPRESS("..\Period3\p&var1.-&var2.-&var3.-0.htm");
            HREFp4=COMPRESS("p&var1.-&var2.-&var3.-0.htm");

         ****HELP FILE FOR TREND COLUMN***;
            HREF5=COMPRESS("..\html\help.htm#trend");      /*7-29-2002 DKB ADDED LINK FOR TREND
SECTION OF HELP FILE*/

         ****************************************************;

            /* MER 05/09/2009 Temporary fix for V4 transition
               No Customer Service composite for April and July, 2008 */
            /* MER 08/06/2009 Modified for Q3FY2009 to handle July, 2008 only */
            /* MER 10/24/2009 Fix no longer needed */
            /*%if &var3.=4 %then %do;
               HREFf1=HREF5;
               HREFf2=HREF5;
               HREFp1=HREF5;
               HREFp2=HREF5;
            %end;*/

      /*** 4th Row (columns 2+) ***/
      /*** If quarter column then HREF link is different ****/
      /*** ÛÛ FRAMES SECTION ÛÛ ***/

         *LENGTH HREF $250;

      %if &prefix=f %then %do;
        /* MER 10/24/2009 Fix no longer needed */
        /*%if &var3.=4 and &seppage.=2 %then %do;
           IF TIMEPD = "April, 2008" OR TIMEPD = "July, 2008" THEN DO;
               IMAGE=COMPRESS("&imgdir.\col"||_N_||"_R.gif");
           END;
           ELSE DO;
               IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");
           END;
        %end;*/
        %if &var3.=1 or &var3.=3 %then %do;
           IF TIMEPD = "Est. Quarterly Rate of Change" THEN DO;
               IMAGE=COMPRESS("&imgdir.\col"||_N_||"_trans.gif");
           END;
```

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```
           ELSE DO;
               IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");
           END;
        %end;
        %else %do;
           IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");   *DKB CHANGED IMAGE NAME FROM QTR TO
COL;
        %end;


        IF _N_=1 THEN HREF=HREFf1;
        ELSE IF _N_=2 THEN HREF=HREFf2;
        ELSE IF _N_=3 THEN HREF=HREFf3;
        ELSE IF _N_=4 THEN HREF=HREFf4;
        ELSE IF _N_=5 THEN HREF=HREF5;
          if timepd ne "Est. Quarterly Rate of Change*" then
              PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
          else do;
            IMAGE=COMPRESS("&imgdir.\col"||_N_||"_R.gif");
            PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
          end;
      %end;
      %else %do;
        IF _N_=1 THEN HREF=HREFp1;
        ELSE IF _N_=2 THEN HREF=HREFp2;
        ELSE IF _N_=3 THEN HREF=HREFp3;
        ELSE IF _N_=4 THEN HREF=HREFp4;
        ELSE IF _N_=5 THEN HREF=HREF5;

        /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE*/

        /* MER 10/24/09 Fix no longer needed */
        /*%if &var3.=4 and &seppage.=2 %then %do;
            IF TIMEPD = "April, 2008" OR TIMEPD = "July, 2008" THEN DO;
              PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "<b>*</b></a></font></td>";
            END;
            ELSE DO;
              PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
            END;
        %end;*/
        %if &var3.=1 or &var3.=3 %then %do;
            IF TIMEPD = "Est. Quarterly Rate of Change" THEN DO;
              PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "<b>#</b></a></font></td>";
            END;
            ELSE DO;
              PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
            END;
        %end;
        %else %do;
            PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
        %end;

    %end;



    IF EOF THEN DO;
      PUT "</font></tr>";
      /*** 2-2 MAB removed scale row ***/
    END;

  RUN;

  %end;

  /*** ÛÛ FRAMES SECTION ÛÛ ***/
  %if &prefix=f %then %do;
    /*** Close out header HTML page ***/
    DATA _NULL_;
```

```
      FILE "&FILEOUT1." MOD;

        PUT "</center></table>";
        PUT "</body></html>";
      RUN;


    /*** Since done making frame 1 page then assign fileout1 = frame 2 ***/
    %let fileout1=&fileout3.;

    /*** Initialize out data HTML page ***/
    DATA _NULL_;
      FILE "&FILEOUT3.";

      PUT "<! Created &datetime.>";
      PUT "<html>";
      PUT   "<body   bgcolor='#999999'   text='#000099'   link='#660066'   alink='#660066'
vlink='#996699'>";
      PUT   "<center><table  border='1'  cellpadding='2'  cellspacing='0'  bgcolor='#D8D8D8'
cols=&columns. width=640>";
    RUN;




  %end;




    /***********************************/
    /****  Put out rest of table    ****/
    /****  Colored scores and Stub  ****/
    /***********************************/
    %if &seppage.=0 OR &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                                *** MER 4/21/09 Changed 7/8/9/10 to 6/7/8/9;
    DATA HTML3;
      SET SUBSET4;
    RUN;
    %end;
    %else %if &seppage.=1 %then %do;
    DATA HTML3;
      SET SUBSET4;

      /*** 8-7-2003 Mark Brinkley ***/
      IF TIMEPD="&currentperiod.";

      /*** Since splitting up table need to delete some records ***/
      /*** Modified 2-2 MAB to deal with new period values **/
      IF BENTYPE="Composite" THEN DELETE;   ***DKB ADDED TREND 5/2/2002***;
    RUN;                                        ***MJS 07/03/03 Changed from BENTYPE IN any period
and Est. Quarterly Rate of Change;
    %end;
    %else %if &seppage.=2 %then %do;

    DATA HTML3;
      SET SUBSET4;
      /*** Since splitting up table need to delete some records ***/
      /*** Modified 2-2 MAB to deal with new period values **/
    *  IF BENTYPE="Composite";   ***DKB ADDED TREND 5/2/2002***;

      *** RSG ADDED VAR4 CONDITIONS FOR SUB-BENEFIT TREND PAGES 08/07/03;
    %if &var4. = 0 %then %do;
            IF BENTYPE="Composite";
    %end;
    %else %if &var4. ne 0 and BENTYPE ne "Composite" %then %do;
            %if &var3. = 1 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Getting to See a Specialist";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Getting Treatment";
                    %end;
            %end;
```

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```
              %else %if &var3. = 2 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Wait for Routine Visit";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Wait for Urgent Care";
                    %end;
              %end;
              %else %if &var3. = 3 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Listens Carefully";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Explains so You Can Understand";
                    %end;
                    %else %if &var4. = 3 %then %do;
                            IF BENTYPE = "Shows Respect";
                    %end;
                    %else %if &var4. = 4 %then %do;
                            IF BENTYPE = "Spends Time with You";
                    %end;
              %end;
              %else %if &var3. = 4 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Getting Information";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Courteous Customer Service";
                    %end;
              %end;
              %else %if &var3. = 5 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Claims Handled in a Reasonable Time";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Claims Handled Correctly";
                    %end;
              %end;
              %else %if &var3. = 10 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Mammography";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Pap Smear";
                    %end;
                    %else %if &var4. = 3 %then %do;
                            IF BENTYPE = "Hypertension";
                    %end;
                    %else %if &var4. = 4 %then %do;
                            IF BENTYPE = "Prenatal Care";
                    %end;
              %end;
              %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Non-Smoking Rate";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Counselled To Quit";
                    %end;
                    %else %if &var4. = 3 %then %do;
                        IF BENTYPE = "Percent Not Obese";
                    %end;
              %end;
        %end;

    RUN;                            ***MJS 07/03/03 Changed from BENTYPE IN any period and Est.
Quarterly Rate of Change;
    %end;

    /*ÛÛÛÛ ALL MAJGRPS ÛÛÛÛ*/
    %if &var1.=0 %then %do;

    DATA HTML4;
      SET HTML3 END=EOF;
```

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```
        *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/


        IF MAJGRP="Prime Enrollees" THEN MAJNUM=1;
        IF MAJGRP="Enrollees with Military PCM"  THEN MAJNUM=2;
        IF MAJGRP="Enrollees with Civilian PCM" THEN MAJNUM=3;
        IF MAJGRP="Standard/Extra Users" THEN MAJNUM=4;   ***JSO 10/31/07  Added Civilian PCM;
        IF MAJGRP="Purchased Care Users" THEN MAJNUM=5;   ***JSO 07/28/08  Purchased Care Users;
        IF MAJGRP="Active Duty" THEN MAJNUM=6;              ***(MAJNUM=3), and changed 3-7 bacl to
4-8;
        IF MAJGRP="Active Duty Dependents" THEN MAJNUM=7;
        IF MAJGRP="Retirees and Dependents" THEN MAJNUM=8;
        IF MAJGRP="All Users" THEN MAJNUM=9;


      /*** HREF link to another page ***/
    /*  HREF=COMPRESS("..\html\&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");
        RSG 02/2005 - changed for period1-3, link goes to that period component page*/
        HREF=COMPRESS("&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");
      /*** MAB 7-12-2001 updated to reference trend page if needed ***/


      /**RSG 02/2005 - CONUS TREATED AS REGION, COMMENT OUT CODE**/
      /*%if &var2.^=17 and &var2.^=18 and &var2.^=19 and &var2.^=20 %then %do;
        IF SUBSTR(REGION,1,3)="USA" THEN DELETE;
      %end;*/


      LENGTH HREFQ LMAJGRP $ 100;   /*MJS 02/11/04*/
      RETAIN LMAJGRP;

      IF _N_=1 THEN DO;
        LMAJGRP=" ";
        ROW=0;


      /*** Add links to trend data 7.6.2001 MAB ***/
      %let columns_less1=%EVAL(&columns.-1);
      %if &seppage.=0 %then %do;
            FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
            PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
              /**RSG 02/2005 Comment out next line because total score is removed **/
    /*        PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";           */

            %do i=1 %to 11;   ***MER 04/21/09 Changed 12 to 11 for 11 Benefits;
              %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;     ***MER 04/21/09
Changed 7,8,9,10 to 6,7,8,9;
                  HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");   /*** href to
2nd html file ***/
              %end;
              %else %do;
                  HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");   /*** href to
2nd html file ***/
              %end;

              PUT  "<td  width='"  WIDTH3  "'><a  href='"  HREFQ  "'  &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
            %end;
            PUT "</tr>";
      %end;

      END;



      IF LMAJGRP^=MAJGRP THEN DO;              /*** Start new row ***/
          FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
          ROW+1;
          IF LMAJGRP^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


          /*** Column 1 / Row 1 ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
```

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```sas
          %if &prefix=f %then %do;
                 IF MAJGRP IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" MAJGRP "</font></b></td>";    /*** no HREF links ***/
             %end;
             %else %do;
                 IF   MAJGRP   IN("Benchmark")  THEN   PUT   "<tr><td><b><font  face='&fontface.'
size='2'>" MAJGRP "</font></b></td>";                           /*** no HREF links ***/
             %end;


             /*** Column 1 / Row 2+ ***/

             ELSE  IF  MOD(ROW,2)=0  THEN  PUT  "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " MAJGRP " </a></font></td>";   /** Shade row **/
             ELSE  PUT  "<tr><td><font  face='&fontface.'  size='2'><a  href=""" HREF +(-1) """
&target.> " MAJGRP " </a></font></td>";



             /*-------------------------*/
             /* 2000/11: begin xls code */
             /*-------------------------*/
              %if &outxls.=1 %then %do;
                 FILE XLSDATA;
                 IF LMAJGRP^=" " THEN            PUT " ";
                 IF REGION IN("Benchmark") THEN PUT REGION '09'x @@;     /* '09'x ensures text
string is put into one cell */
                 ELSE IF MOD(ROW,2)=0 THEN       PUT MAJGRP '09'x @@;    /* rather than spanning
across cells               */
                 ELSE                            PUT MAJGRP '09'x @@;
              %end;
             /*-------------------------*/
             /* 2000/11: end xls code   */
             /*-------------------------*/


             LMAJGRP=MAJGRP;
          END;



       /*** Column 2+ ***/
       /*******************************************/
       /**** Need to output different formats    ****/
       /*******************************************/
       FILE "&FILEOUT1." MOD ;                 /* 2000/11: refer back to htm file */


       IF MAJGRP IN("Benchmark") THEN DO;
          IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
             ELSE   IF   SCORE=.A   THEN   PUT   "<td   width='"   WIDTH3   "'  align='center'
valign='bottom'><b><font face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
             ELSE  PUT  "<td  width='"  WIDTH3  "'  align='center'  valign='bottom'><b><font
face='&fontface.'  color=&blue.  size='2'>"  SCORE  3.0  "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></b></td>";
       END;
       ELSE DO;
         IF SCORE=. THEN DO;
             PUT    "<td    align='center'    valign='bottom'><b><font    face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
         END;
         ELSE IF SCORE=.A THEN DO;
             PUT    "<td    align='center'    valign='bottom'><b><font    face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
         END;
         ELSE DO;
             IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
             ELSE  IF  SIG=.  THEN  PUT  "<td  align='center'  valign='bottom'><b><font
face='&fontface.' size='2'>***<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
             ELSE  IF  SIG=.A  THEN  PUT  "<td  align='center'  valign='bottom'><b><font
face='&fontface.' size='2'>NA<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
             ELSE  IF  SIG=-1  THEN  PUT  "<td  align='center'  valign='bottom'><i><font
face='&fontface.'  size='2'  color=&red.>"  SCORE  3.0   "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></i></td>";
```

```
              ELSE  PUT  "<td align='center'  valign='bottom'><font  face='&fontface.'  size='2'>"
SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
          END;
        END;



        /*------------------------*/
        /* 2000/11: begin xls code */
        /*------------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF MAJGRP IN("Benchmark") THEN DO;   /** Replaced 1-22 mab **/
                IF SCORE=. THEN        PUT "***" '09'x @@;
                ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
                ELSE                   PUT SCORE '09'x @@;
          END;
          ELSE DO;
            IF SCORE=. THEN DO;
                PUT "***" '09'x @@;
            END;
            ELSE IF SCORE=.A THEN DO;
                PUT "NA" '09'x @@;
            END;
            ELSE DO;
                IF SIG=1 THEN        PUT SCORE '09'x @@;
                ELSE IF SIG=. THEN   PUT "***" '09'x @@;
                ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
                ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
                ELSE                PUT SCORE '09'x @@;
            END;
          END;
        %end;
        /*------------------------*/
        /* 2000/11: end xls code   */
        /*------------------------*/

        IF EOF THEN DO;
           FILE "&FILEOUT1." MOD ;                          /* 2000/11: to refer back to htm file
*/
            PUT "</tr>";  /*** terminate last row ***/

            %BOTTOM_NOTES;  /** Macro with bottom notes **/


            /*------------------------*/
            /* 2000/11: begin xls code */
            /*------------------------*/

            %BOTTOM_NOTES_XLS;  /** Macro with bottom notes for XLS **/

            /*------------------------*/
            /* 2000/11: end xls code   */
            /*------------------------*/

        END;
      RUN;
      %end;




      /*ÛÛÛÛ All Regions ÛÛÛÛ*/
      %if &var2.=0 %then %do;
      DATA HTML4;
        SET HTML3 END=EOF;
        *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

        LENGTH LREGION HREFQ $ 100;   /*MJS 02/11/04*/
        RETAIN LREGION;

        IF _N_=1 THEN DO;
```

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```
                LREGION=" ";
               REGNUM=1;
               ROW=0;


           /*** Add links to trend data 7.6.2001 MAB ***/
           %let columns_less1=%EVAL(&columns.-1);
           %if &seppage.=0 %then %do;
                FILE "&FILEOUT1." MOD ;    /* 2000/11: moved inside if stmt */
                PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";
                   /**RSG 02/2005 Commented out next line because no longer have TOTAL score**/
      /*        PUT "<td width='" WIDTH3 "'>&htmlsp.</td>";          */

                %do i=1 %to 11;     ***MER 04/21/09 changed 12 to 11 since we now have 11
benefits;
                    %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;    ***MER 04/21/09
Changed from 7,8,9,10 to 6,7,8,9;
                        HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");   /*** href to
2nd html file ***/
                    %end;

                    %else %do;
                        HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");    /*** href to
2nd html file ***/
                    %end;

                    PUT  "<td  width='"  WIDTH3  "'><a  href='"  HREFQ  "'  &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
                %end;
                PUT "</tr>";
           %end;


       END;


     IF LREGION^=REGION THEN DO;               /*** Start new row ***/
           FILE "&FILEOUT1." MOD ;    /* 2000/11: moved inside if stmt */
           ROW+1;
           IF LREGION^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


           /*------------------------*/
           /* 2000/11: begin xls code */
           /*------------------------*/
           %if &outxls.=1 %then %do;
             FILE XLSDATA;
             IF LREGION^=" " THEN PUT " ";          /*** terminate previous row ***/
             FILE "&FILEOUT1." MOD ;                /* 2000/11: to refer back to htm file */
           %end;
           /*------------------------*/
           /* 2000/11: end xls code   */
           /*------------------------*/


           /*** Column 1 / Row 1 ***/
           /*** ÛÛ FRAMES SECTION ÛÛ ***/
           %if &prefix=f %then %do;
               IF REGION IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
           %end;
           %else %do;
               IF  REGION  IN("Benchmark")  THEN  PUT  "<tr><td><b><font  face='&fontface.'
size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
           %end;
           ELSE DO;   /*** HREF links for each region ***/


              /*HREF=COMPRESS("..\html\&prefix.0-"||REGNUM||"-&var3.-&var4.&q..htm");
                RSG 02/2005 - Changed link so period1-3 will link to appropriate component
page*/
                HREF=COMPRESS("&prefix.0-"||REGNUM||"-&var3.-&var4.&q..htm");
```

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```
                /*** MAB 7-12-2001 updated to reference trend page if needed ***/



                /*** Certain major groups are not large enough to show ***/
                /*** catchment level detail. so don't add HREF link here  ***/
                /*** Remove since qtrs not going down to catchment level ***/
                /**%if &var1.=3 or &var1.=5 or &var1.=6  %then %do;    ***MJS 05/04/03 Removed
Civilian PCM (&var1.=3), and changed 4,6,7 to 3,5,6;
                    IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font   face='&fontface.'
size='2'> " REGCAT " </font></td>";    Shade row
                    ELSE PUT "<tr><td><font  face='&fontface.' size='2'> " REGCAT " </font></td>";
                %end;
                %else %do;
                    IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font   face='&fontface.'
size='2'><a href=""" HREF +(-1) """> " REGCAT " </a></font></td>";   Shade row
                    ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1) """>
" REGCAT " </a></font></td>";
                %end;**/


                /*** Column 1 / Row 2+ ***/
                %if &prefix=f %then %do;
                    if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                        regcat = "OVERSEAS" or regcat="US MHS" then do; /* MER 08/27/09 changed to
US MHS */
                        IF   MOD(ROW,2)=0   THEN   PUT   "<tr   bgcolor=   &gray.><td><b><font
face='&fontface.'   size='2'><a   href="""   HREF   +(-1)   """   &target.>   "   REGCAT   "
</a></b></font></td>"; /** Shade row **/
                        ELSE PUT "<tr><td><b><font face='&fontface.' size='2'><a href=""" HREF +(-
1) """ &target.> " REGCAT " </a></b></font></td>";
                    end;
                        else do;
                        IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
                        ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1)
""" &target.> " REGCAT " </a></font></td>";
                            end;
                %end;
                %else %do;
                    if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                        regcat = "OVERSEAS" or regcat="US MHS" then do; /* MER 08/27/09 changed to
US MHS */
                        IF   MOD(ROW,2)=0   THEN   PUT   "<tr   bgcolor=   &gray.><td><b><font
face='&fontface.'   size='2'><a   href="""   HREF   +(-1)   """   &target.>   "   REGCAT   "
</a></b></font></td>"; /** Shade row **/
                        ELSE PUT "<tr><td><b><font face='&fontface.' size='2'><a href=""" HREF +(-
1) """ &target.> " REGCAT " </a></b></font></td>";
                    end;
                        else do;
                        IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font  face='&fontface.'
size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>"; /** Shade row **/
                        ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF +(-1)
""" &target.> " REGCAT " </a></font></td>";
                        end;
                %end;



                REGNUM+1;

                    /**RSG 02/2005 Conus treated as Region, comment out code**/
                /**IF SUBSTR(REGION,1,3) = "USA" THEN DO;
                    REGNUM=ORIGNUM;
                END;**/

            END;

            /*-------------------------*/
            /* 2000/11: begin xls code */
            /*-------------------------*/
            %if &outxls.=1 %then %do;
              FILE XLSDATA;
              IF REGION IN("Benchmark") THEN  PUT REGCAT '09'x @@;   /* no logic difference */
              ELSE DO;
```

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```
                        IF MOD(ROW,2)=0 THEN                  PUT REGCAT '09'x @@;     /* just presentation
difference in htm */
                        ELSE                                  PUT REGCAT '09'x @@;     /* keeping as is to
preserve htm code structure */
               END;
            %end;
            /*------------------------*/
            /* 2000/11: end xls code  */
            /*------------------------*/

            LREGION=REGION;
       END;


       /*** Column 2+ ***/
       /*****************************************/
       /**** Need to output different formats    ****/
       /*****************************************/
       FILE "&FILEOUT1." MOD ;              /* 2000/11: refer back to htm file */
       IF REGION IN("Benchmark") THEN DO;     /*** no significance ***/
          IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
             ELSE  IF  SCORE=.A   THEN  PUT  "<td  width='"  WIDTH3  "'  align='center'
valign='bottom'><b><font face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
             ELSE  PUT  "<td  width='"  WIDTH3  "'  align='center'  valign='bottom'><b><font
face='&fontface.'  color=&blue.  size='2'>"  SCORE  3.0  "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></b></td>";
          END;
       ELSE DO;
          IF SCORE=. THEN DO;
              PUT     "<td     align='center'     valign='bottom'><b><font     face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
          END;
          ELSE IF SCORE=.A THEN DO;
              PUT     "<td     align='center'     valign='bottom'><b><font     face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
          END;
          ELSE DO;
              IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                 ELSE   IF   SIG=.   THEN   PUT   "<td   align='center'   valign='bottom'><b><font
face='&fontface.' size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                 ELSE   IF   SIG=.A   THEN   PUT   "<td   align='center'   valign='bottom'><b><font
face='&fontface.' size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                 ELSE   IF   SIG=-1   THEN   PUT   "<td   align='center'   valign='bottom'><i><font
face='&fontface.'   size='2'   color=&red.>"   SCORE   3.0      "<!CODE=   "   +(-1)   ORDER   Z5.
"></font></i></td>";
                 ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>"
SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
          END;
       END;


       /*------------------------*/
       /* 2000/11: begin xls code */
       /*------------------------*/
       %if &outxls.=1 %then %do;
         FILE XLSDATA;
         IF REGION IN("Benchmark") THEN DO;
             IF SCORE=. THEN       PUT "***" '09'x @@;
             ELSE IF SCORE=.A THEN PUT "NA"  '09'x @@;
             ELSE                  PUT SCORE '09'x @@;
         END;
         ELSE DO;
           IF SCORE=. THEN DO;
              PUT "***" '09'x @@;
           END;
           ELSE IF SCORE=.A THEN DO;
              PUT "NA" '09'x @@;
           END;
           ELSE DO;
              IF SIG=1 THEN       PUT SCORE '09'x @@;
              ELSE IF SIG=. THEN  PUT "***" '09'x @@;
```

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```
                    ELSE IF SIG=.A THEN PUT "NA"   '09'x @@;
                    ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
                    ELSE                 PUT SCORE '09'x @@;
              END;
           END;
        %end;
        /*------------------------*/
        /* 2000/11: end xls code  */
        /*------------------------*/


        IF EOF THEN DO;
           FILE "&FILEOUT1." MOD ;               /* 2000/11: refer back to htm file */
           PUT "</tr>";  /*** terminate last row ***/


           %BOTTOM_NOTES;  /** Macro with bottom notes **/


           /*------------------------*/
           /* 2000/11: begin xls code */
           /*------------------------*/

           %BOTTOM_NOTES_XLS;  /** Macro with bottom notes for XLS **/

           /*------------------------*/
           /* 2000/11: end xls code  */
           /*------------------------*/

        END;

     RUN;

     %end;




     /*ÛÛÛÛ Single Regions ÛÛÛÛ*/
     /* This code is not applicable for the 2000 report cards */
     /*  since not enough data to display sub-region info. */
     /*  Will leave in code in case this changes */
     %if &var2.^=0 AND &var1.^=0 %then %do;
     DATA HTML4;
       SET HTML3 END=EOF;

       LENGTH LREGCAT $ 100 /*HREF $ 250*/;   /*MJS 01/29/04 Commented out HREF statement*/
       RETAIN LREGCAT;                        /*MJS 02/11/04*/

       IF _N_=1 THEN DO;
          LREGCAT=" ";
          ROW=0;
       END;


       IF LREGCAT^=REGCAT THEN DO;              /*** Start new row ***/
             FILE "&FILEOUT1." MOD ;   /* 2000/11: moved inside if stmt */
             ROW+1;
             IF LREGCAT^=" " THEN PUT "</tr>";  /*** terminate previous row ***/
             IF REGCAT IN("Benchmark") THEN PUT "<tr><td><b><font face='&fontface.' size='2'>"
REGCAT "</font></b></td>";
             ELSE IF SUBSTR(REGCAT,1,2) = "US" THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
             ELSE IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'>" REGCAT "</font></td>";   /** Shade row **/
             ELSE PUT "<tr><td><font face='&fontface.' size='2'>" REGCAT "</font></td>";

             /*------------------------*/
             /* 2000/11: begin xls code */
             /*------------------------*/
             %if &outxls.=1 %then %do;
```

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```
               FILE XLSDATA;
               IF LREGCAT^=" " THEN PUT " ";
               IF REGCAT IN("Benchmark") THEN        PUT REGCAT '09'x @@;              /* no logic
difference */
               ELSE IF SUBSTR(REGCAT,1,2) = "US") THEN PUT REGCAT '09'x @@;
               ELSE IF MOD(ROW,2)=0 THEN                PUT REGCAT '09'x @@;              /* just
presentation difference in htm */
               ELSE                                 PUT REGCAT '09'x @@;         /* keeping as is
to preserve htm code structure */
            %end;
            /*------------------------*/
            /* 2000/11: end xls code   */
            /*------------------------*/


            LREGCAT=REGCAT;

       END;



       /*********************************************/
       /**** Need to output different formats    ****/
       /*********************************************/
       FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
       IF REGION IN("Benchmark") THEN DO;      /*** no significance ***/
           IF SCORE=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           ELSE  IF  SCORE=.A  THEN  PUT  "<td  align='center'  valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           ELSE PUT "<td align='center' valign='bottom'><b><font face='&fontface.' color=&blue.
size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
       END;
       ELSE DO;
         IF SCORE=. THEN DO;
           PUT     "<td     align='center'    valign='bottom'><b><font    face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
         END;
         ELSE IF SCORE=.A THEN DO;
           PUT     "<td     align='center'    valign='bottom'><b><font    face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
         END;
         ELSE DO;
           IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           ELSE    IF    SIG=.   THEN   PUT   "<td   align='center'   valign='bottom'><b><font
face='&fontface.' size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           ELSE    IF   SIG=.A   THEN   PUT   "<td   align='center'   valign='bottom'><b><font
face='&fontface.' size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           ELSE    IF   SIG=-1   THEN   PUT   "<td   align='center'   valign='bottom'><i><font
face='&fontface.'  size='2'  color=&red.>"  SCORE  3.0     "<!CODE=   "  +(-1)   ORDER  Z5.
"></font></i></td>";
           ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>"
SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
         END;
       END;

       /*------------------------*/
       /* 2000/11: begin xls code */
       /*------------------------*/
       %if &outxls.=1 %then %do;
         FILE XLSDATA;
         IF REGION IN("Benchmark") THEN DO;
             IF SCORE=. THEN        PUT "***" '09'x @@;
             ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
             ELSE                 PUT SCORE '09'x @@;
         END;
         ELSE DO;
           IF SCORE=. THEN DO;
               PUT "***" '09'x @@;
           END;
           ELSE IF SCORE=.A THEN DO;
               PUT "NA" '09'x @@;
           END;
```

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```
              ELSE DO;
                   IF SIG=1 THEN       PUT SCORE '09'x @@;
                   ELSE IF SIG=. THEN   PUT "***" '09'x @@;
                   ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
                   ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
                   ELSE                PUT SCORE '09'x @@;
              END;
          END;
       %end;
       /*------------------------*/
       /* 2000/11: end xls code   */
       /*------------------------*/


       IF EOF THEN DO;
          FILE "&FILEOUT1." MOD ;                   /* 2000/11: refer back to htm file */
          PUT "</tr>";  /*** terminate last row ***/

          %BOTTOM_NOTES;  /** Macro with bottom notes **/


          /*------------------------*/
          /* 2000/11: begin xls code */
          /*------------------------*/

          %BOTTOM_NOTES_XLS;  /** Macro with bottom notes for XLS **/

          /*------------------------*/
          /* 2000/11: end xls code   */
          /*------------------------*/

       END;

    RUN;
    %end;



    /***********************************/
    /****  Print out footer info     ****/
    /***********************************/
    DATA _NULL_;
       FILE "&FILEOUT1." MOD ;
       LENGTH HREF $250;


       /** Determine where back button should link to **/
       %if &var1.=0 %then %do;
          HREFBACK=COMPRESS("&prefix.8-0-0-0.htm");   ***MJS 05/14/03 Changed 8 to 7;
       %end;
       %else %do;
          HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
       %end;

      /*HERE!*/

       /** MF Changes **/
       PUT "<tr>";
       PUT "   <td colspan='&columns.'>";
       PUT "       <center>";
       PUT "            <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp.&htmlsp.";
              /*** 7-17 MAB added JS code to go back ***/
       PUT "&goback.";
       PUT "            <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";

       PUT "             <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a><br>";
       PUT "          <font face='Arial,Helvetica,Swiss,Geneva' size='2'><b>&grpmsg.<br>";
       PUT "          </b></font>";
```

```
        majgrp1=COMPRESS("&prefix.1-&var2.-&var3.-&var4.&q..htm");
        majgrp2=COMPRESS("&prefix.2-&var2.-&var3.-&var4.&q..htm");
        majgrp3=COMPRESS("&prefix.3-&var2.-&var3.-&var4.&q..htm");      ***JSO  10/31/07  Added
Civilian PCM;
        majgrp4=COMPRESS("&prefix.4-&var2.-&var3.-&var4.&q..htm");    ***(majgrp3), and changed
3-7 back to 4-8;
        majgrp5=COMPRESS("&prefix.5-&var2.-&var3.-&var4.&q..htm");      ***JSO  07/28/08  Added
Purchased Care Users;
        majgrp6=COMPRESS("&prefix.6-&var2.-&var3.-&var4.&q..htm");
        majgrp7=COMPRESS("&prefix.7-&var2.-&var3.-&var4.&q..htm");
        majgrp8=COMPRESS("&prefix.8-&var2.-&var3.-&var4.&q..htm");
        majgrp9=COMPRESS("&prefix.9-&var2.-&var3.-&var4.&q..htm");


         /*** Certain major groups are not large enough to show ***/
         /*** catchment level detail. So if we are in html file ***/
         /*** which has this detail then don't link to a html   ***/
         /*** file which doesn't exist                          ***/

        %if &var1.^=0 %then %do;
          %if &var1.^=4 and &var1.^=6 and &var1.^=7 and &var2.^=0 %then %do;   ***JSO 10/31/07
Added Civilian PCM (&var1.^=3), changed 3,5,6 back to 4,6,7;
                                                              ***and    changed
MAJGRP 4&7 below back to 5&8;
            PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
                PUT   "<a   href="""   MAJGRP2   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Enrollees with Military PCM</font></a>&htmlsp.&htmlsp.";
                PUT   "<a   href="""   MAJGRP6   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Active Duty</font></a>&htmlsp.&htmlsp.";
            PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

          %end;
          %else %do;

            PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
                PUT   "<a   href="""   MAJGRP2   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Enrollees with Military PCM</font></a>&htmlsp.&htmlsp.";
                PUT   "<a   href="""   MAJGRP3   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Enrollees  with  Civilian  PCM</font></a>&htmlsp.&htmlsp.";    ***JSO  10/31/07  Added
Civilian PCM;
                PUT   "<a   href="""   MAJGRP4   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Standard/Extra Users</font></a>&htmlsp.&htmlsp.";          ***(MAJGRP5), and changed 3-
7 back to 4-8;
                PUT   "<a   href="""   MAJGRP5   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Purchased  Care  Users</font></a>&htmlsp.&htmlsp.";           ***JSO  07/28/08  Added
Purchased Care Users;
            PUT "<br>";
            PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
            PUT "<a href=""" MAJGRP7 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty Dependents</font></a>&htmlsp.&htmlsp.";
                PUT   "<a   href="""   MAJGRP8   +(-1)   """   &target.><font   face='&fontface.'
size='2'>Retirees and Dependents</font></a>&htmlsp.&htmlsp.";
            PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

          %end;
         %end;

        /*** link to printer friendly version moved C.Rankin 10/25/2001 ***/

        /*** 4-17 MAB added  ***/
        /*** If creating frames need link to printer friendly version of file ***/
        /***DANIELE ADDED BR STATEMENT ON 11/1/01 SO PRINTER ICON WOULD SHOW UP ON SEPARATE LINE
***/
        %if &prefix=f %then %do;
           HREFP=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..htm");
           PUT "      <BR><font face='Arial,Helvetica,Swiss,Geneva' size='1'><a href='" HREFP "'
&target.><img src='&imgdir.\printer.gif' alt='Printer Friendly Page' border=0>Printer Friendly
Page</a></font>
        %end;
```

```
      RUN;


      /*** Close HTML page ***/
      DATA _NULL_;
        FILE "&FILEOUT1." MOD ;

        PUT "</center></td></tr></table>";
        PUT "</body></html>";

      RUN;




      /*----------------------------*/
      /* 2000/12: begin xls color code */
      /*----------------------------*/
      %if &outxls.=1 %then %do;
        FILENAME CMDS DDE 'excel|system';

        /* Align 2 titles */
        DATA _NULL_;
           FILE CMDS;
           CELL=COMPRESS("[SELECT(""R1C1:R1C"||&columns.||""")]"); PUT CELL;
           PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
           CELL=COMPRESS("[SELECT(""R2C1:R2C"||&columns.||""")]"); PUT CELL;
           PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns **/
        RUN;

        DATA _NULL_;
          FILE CMDS;
          SET HTML4(DROP=ROW) END=EOF;

          RETAIN ROW COLUMN;


          /*** Need to initialize row and column pointers ***/
          IF _N_=1 THEN DO;
            ROW=6;
            COLUMN=1;
          END;

          /*** Increment Row and Column pointers ***/
      /*    COLUMN=COLUMN+1;
          IF &var3.in (0,6,7,8,9) and COLUMN>&columns. THEN DO;    ***MER 4/21/09 Changed 7/8/9/10
to 6/7/8/9;
             ROW=ROW+1;
             COLUMN=2;
          END;
          ELSE IF COLUMN>&columns.+1 THEN DO;
             ROW=ROW+1;
             COLUMN=2;
          END;
      *** RSG/MAB - 10/13/03 - changes for new template format */

        COLUMN=COLUMN+1;
        IF COLUMN>&columns. THEN DO;
           ROW=ROW+1;
           COLUMN=2;
        END;


        CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
        PUT CELL;

        /** Before color cell center data **/
        PUT '[ALIGNMENT(3, False, 3,0, False)]';


        IF    REGION    IN("Benchmark")    OR    MAJGRP    IN("Benchmark")    THEN    PUT
'[FORMAT.FONT("Arial",10,True,False,False,False,9)]';  /*** BOLD & DARK RED ***/
```

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```
          ELSE IF SCORE NOT IN(.,.A) THEN DO;
             IF    SIG=1    THEN   PUT    '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';
/*** BOLD & GREEN ***/
             ELSE  IF   SIG=-1   THEN   PUT  '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';
/*** RED ***/
             ELSE PUT '[FORMAT.FONT("Arial",10,False,False,False,False,5)]';    /*** BLUE ***/
          END;


          /*** If last record then output footer ***/
          IF EOF THEN DO;
             ROW=ROW+3; COLUMN=1;
             CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
             PUT CELL;
             PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';                /*** BOLD &
GREEN ***/
             ROW=ROW+1;
             CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
             PUT CELL;
             PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';    /*** RED ***/
          END;
        RUN;
        FILENAME CMDS DDE 'excel|system';
        DATA _NULL_;
          FILE CMDS;
          PUT '[SAVE()]';
          PUT '[CLOSE()]';
        RUN;
     %end;
     /*-----------------------------*/
     /* 2000/12: end xls color code   */
     /*-----------------------------*/




     %MEND MKHTML;
     /*ÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛ*/
     /*ÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛÓÛ*/
     /*

     %LET PREFIX=p;
     %LET OUTXLS=0;

     %MKHTML(0,21,2,2,0);
     %MKHTML(1,0,1,2,0);
     %MKHTML(1,0,2,2,0);
     %MKHTML(1,0,4,2,0);
     %MKHTML(2,0,2,2,0);
     %MKHTML(2,0,4,2,0);
     %MKHTML(3,0,11,2,0);
     %MKHTML(3,0,2,2,0);
     %MKHTML(3,0,4,2,0);
     %MKHTML(4,0,1,2,0);
     %MKHTML(4,0,2,2,0);
     %MKHTML(6,0,11,2,0);
     */



     *********************************************;
     **** Create macros to call MKHTML macro  ****;
     *********************************************;

     /*** Create 8 HTML pages (8 Majgrps / All Regions / All Benefits)***/
     %MACRO DOALL1();
                %MKHTML(1,0,0,0,0);
                %MKHTML(2,0,0,0,0);
                %MKHTML(6,0,0,0,0);
                %MKHTML(9,0,0,0,0);
                %MKHTML(3,0,0,0,0);      ***JSO 10/31/07 Added Civilian PCM (Majgrp 3), and
changed 3-7 back to 4-8;
                %MKHTML(4,0,0,0,0);
                %MKHTML(5,0,0,0,0);    ***JSO 07/28/08 Added Purchased Care Users;
```

```
                %MKHTML(7,0,0,0,0);
                %MKHTML(8,0,0,0,0);
     %MEND DOALL1;




     /*** Create 322 HTML pages (8 Majgrps / All Regions / 12 Benefits)***/
     %MACRO DOALL2();
        %DO J=1 %TO 9;                                        /*** JSO Changed 8 to 9
07/28/2008 ***/
           %DO K=6 %TO 9;         * 11 Sub-benefits ;             /*** MER Changed 12 to 11
04/21/2009 ***/
              %MKHTML(&J.,0,&K.,1,0);  ***RSG 08/07/03 Add var4 part of new page numbers;

              /*** Call macro for 2nd page (except for ratings benefits) ***/
              %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                 %IF &K. = 3 OR &K. = 10 %THEN %DO L= 0 %TO 4; ***RSG 08/07/03 There are
different number of
                                                sub-benefits trend pages for each
benefit so need a counter "L"
                                                to do different number of pages for each
benefit;
                    %MKHTML(&J.,0,&K.,2,&L.);
                 %END;
                 %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
                    %MKHTML(&J.,0,&K.,2,&L.);
                 %END;
                 %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 3;
                    %MKHTML(&J.,0,&K.,2,&L.);
                 %END;
              %END;
           %END;

        %END;
     %MEND DOALL2;




      /*** Create 25 HTML pages (All Majgrps / 23 Regions / All Benefits) ***/
     %MACRO DOALL3();
          %DO J=1 %TO 23;
              %MKHTML(0,&J.,0,0,0);
          %END;
     %MEND DOALL3;




      /*** Need to populate new table for all majgrps ***/
     /*** Create 1150 HTML pages (All Majgrps / 23 Regions / 12 Benefits) ***/
     %MACRO DOALL4();
        %DO J=1 %TO 23;
           %DO K=6 %TO 9;
              %MKHTML(0,&J.,&K.,1,0);
              /*** Call macro for 2nd page (except for ratings benefits) ***/
              %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                 %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4; ***RSG 08/07/03 Counter "L" for
different number;
                    %MKHTML(0,&J.,&K.,2,&L.);                              *of sub-benefit
trend pages for each benefit;
                 %END;
                 %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
                    %MKHTML(0,&J.,&K.,2,&L.);
                 %END;
                 %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 3;
                    %MKHTML(0,&J.,&K.,2,&L.);
                 %END;
              %end;
           %END;
        %END;
     %MEND DOALL4;




     /*** Create 4 HTML pages (All Majgrps / 4 Region-ConusMHS / All Benefits) ***/
```

```
       /** RSG 02/2005 - CONUS TREATED AS ANOTHER REGION**/
       /*%MACRO DOALL5();
              %DO K=17 %TO 20;
                 %MKHTML(0,&K.,0,0,0);
              %END;
       %MEND DOALL5;


       %MACRO DOALL6();
            %DO J = 17 %TO 20;
               %DO K=1 %TO 12;   ***MJS 4/23/03 Changed 2 to 1 and 12 to 11;
                      %MKHTML(0,&J.,&K.,1,0);
                   /*** Call macro for 2nd page (except for ratings benefits) ***/
       /*         %if &k.^=7 AND &k.^=8 AND &k.^=9 AND &k.^=10 %then %do;
                             %IF &K. = 1 OR &K. = 2 OR &K. = 4 %THEN %DO L = 0 %TO 4; ***RSG
08/07/03 counter for sub-benefit trend pages;
                                 %MKHTML(0,&J.,&K.,2,&L.);                ***MJS  4/23/03
Changed 8/9/10/11 to 7/8/9/10;
                             %END;
                             %ELSE %IF &K. = 3 OR &K. = 6 OR &K.=12 %THEN %DO L = 0 %TO 2;
                                 %MKHTML(0,&J.,&K.,2,&L.);
                             %END;
                             %ELSE %IF &K. = 5 %THEN %DO L = 0 %TO 3;
                                 %MKHTML(0,&J.,&K.,2,&L.);
                             %END;
                             %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 5;
                                 %MKHTML(0,&J.,&K.,2,&L.);
                             %END;
                  %end;
               %END;
            %end;

       %MEND DOALL6;
       */


       /*** Run macro to create Printer Friendly HTML files (non-frames) ***/


       %LET PREFIX=p;
       %LET OUTXLS=0;
       *%DOALL1;
       %DOALL2;
       *%DOALL3;
       %DOALL4;


       /*** Run macro to create Excel files ONLY ***/

       %LET PREFIX=p;
       %LET OUTXLS=1;
       *%DOALL1;
       %DOALL2;
       *%DOALL3;
       %DOALL4;


       /*** Run macro to create Frame HTML files ***/

       %LET PREFIX=f;
       %LET OUTXLS=0;
       *%DOALL1;
       %DOALL2;
       *%DOALL3;
       %DOALL4;




       %PUT "&number_html_files. HTML files created.";
```

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```
***************************************************************************
*
*  PROJECT:  DoD - Quarterly Adult Report Cards
*  PROGRAM:  STEP1Q.SAS
*  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                    Create a Female dummy variable
*                    Create an Education dummy variable
*                    Create 15 region dummies combining regions.
*                           7 & 8 into region 8. That is, there
*                           isn't a region 7 dummy.
*                    Create 7 age dummy variables.
*
*            We require the most desired code to be the highest value.
*            Recode the dependent variables into:
*                    1 - the least desirable value
*                    2 - the 2nd least desirable value
*                    3 - the most desirable value
*                    . - missing
*
*            Create 7 variables GROUP1 - GROUP7
*                    IF (XINS_COV IN (1,2,6) AND H09004>=2) THEN GROUP1 = 1
*                    IF (XENR_PCM IN (1,2,6) AND H09004>=2) THEN GROUP2 = 1
*                    IF (XENR_PCM = 3,7      AND H09004>=2) THEN GROUP3 = 1
*                    IF XINS_COV IN (3)                     THEN GROUP4 = 1
*                        /*JSO 08/24/2006, Deleted 4,5*/
*                    IF XBNFGRP = 1                         THEN GROUP5 = 1
*                    IF XBNFGRP = 2                         THEN GROUP6 = 1
*                    IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                    GROUP8 is output for all beneficiaries
*
*  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
*               adult report cards.  Removed permanent dataset ENTIRE.SD2.
*            2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
*               for 3rd quarter adult report cards.
*            3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
*               stratification done in Q3, changed all references of the
*               POSTSTR variable to ADJ_CELL
*            4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
*               XENR_PCM
*            5) April 2002 By Mike Scott, Updated variable names for 2002
*               survey.
*            6) July 2002 By Mike Scott: See Note #2.  Replaced variable
*               S02S01 with H04075 (new health status variable), deleted
*               code to recode S02S01 to H00077, and changed H00077/R00077
*               rename/recode to H04075/R04075 rename/recode.  The Hispanic/
*               Latino variable is not present.
*            7) January 2003 By Mike Scott, Changed ADJ_CELL to COM_SAMP.
*            8) March 2003 By Mike Scott, Updated variable names for 2003
*               survey.
*            9) June 2003 By Mike Scott, Updated for Q2 2003.
*            10) July 2003 By Mike Scott, Changed COM_SAMP to ADJ_CELL.
*            11) October 2003 By Mike Scott, Updated for Q3 2003.
*            12) January 2004 By Mike Scott, Updated for Q4 2003, and changed
*               DAGEQY to FIELDAGE.
*            13) March 2004 By Mike Scott, Updated for Q1 2004.
*            14) April 2004 By Keith Rathbun, Removed reverse coding for
*               H04031.  2004 survey question wording is 'Within 15 minutes'
*               instead of "More than 15 Minutes".  Added service affiliation
*               variables so only one version of this program is needed to
*               handle the consumer watch processing.
*            15) June 2004 by Regina Gramss, Updated for Q2 2004.
*             16) Sept 2004 by Regina Gramss, changed XRegion to xtenxreg, updated for Q3
2004.
*            17) Jan 2005 by Regina Gramss, changed XTENXREG to XSERVREG to include
*               service affiliation.  Regions have been changed from 4 categories to 16.
*            18) Apr 2005 by Regina Gramss, updated field names for 2005 data.
*            19) Jul 2005 by Regina Gramss, updated for Q2 2005
*            20) Oct 2005 by Regina Gramss, updated for Q3 2005
*            21) Dec 2005 by Regina Gramss, updated for Q4 2005
*            22) March 21, 2006 by Keith Rathbun, updated variable names
```

```
*              for Q2 FY 2006.  Changed references to ADJ_CELL to be STRATUM.
*        23) July 12, 2006 by Justin Oh, updated for Q3 FY 2006
*        24) Aug 22, 2006 by Justin Oh, changed overseas to 3 regions.
*              Regions have been changed from 16 categories to 24.
*              Added XOCONUS to the Keep statement for Overseas classifications.
*              Changed XSERVREG for Overseas (Europe,Pacific,Latin America).
*              Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
*                      IF XINS_COV IN (3)     THEN GROUP4 = 1
*              Since only XINS_COV IN (1,2,3,6) is kept, (4,5) not needed.
*        25) Oct 03, 2006 by Justin Oh, changed input data HCS063_1 to HCS064_1
*              for Q4FY2006 reports.
*        26) Apr 05, 2007 by Justin Oh, Added %LET BCHTYPE to select BCH types
*              Benchmark OR PurchasedBenchmark.
*        27) Apr 05, 2007 by Justin Oh, Added changes to select RC types
*              ReportCards OR PurchasedReportCards.
*        28) Apr 26, 2007 by Justin Oh, Added codes, variables for new
*              reservists logic.
*        29) May 15, 2007 by Justin Oh, Changed XINS_COV to NXNS_COV to assign
*              Groups 1,3, and 4 for new reservists logic.
*        30) Jul 30, 2007 by Justin Oh, Added added DBENCAT conditions to assign
*              Groups All, 4, 5, and 6.
*        31) Oct 02, 2007 by Justin Oh, changed input data HCS073_1 to HCS074_1
*              for Q4FY2007 reports.
*        32) January 10, 2008 by Keith Rathbun, updated variable names
*              for Q1 FY 2008.
*        33) Apr 11, 2008 by Justin Oh, changed input data HCS081_1 to HCS082_1
*              for Q2FY2008 reports.
*        34) June 13, 2008 by Keith Rathbun, changed input data HCS082_1 to HCS083_1
*              for Q3FY2008 reports.
*        35) Jan 16, 2009 by Mike Rudacille, changed CONUS variable to USA
*        36) Jan 21, 2009 by Mike Rudacille, changed 2009 questionnaire variables
*              applicable to both V3 and V4 from V3 names to V4 names
*        37) March 11, 2009 by Keith Rathbun, changed input data HCS091_1 to HCS092_1
*              for Q2FY2009 reports.
*        38) April 6, 2009 by Mike Rudacille, changed variable names to reflect
*              modifications to beneficiary reports necessary for V4
*        39) June 22, 2009 By Keith Rathbun, Change weight variable from
*              FWRWT_V4 back to FWRWT.  Changed input data HCS092_1 to HCS093_1
*              for Q3FY2009 reports.
*        40) Sept 30, 2009 By Mike Rudacille, Changed input data HCS093_1 to HCS094_1
*              for Q4FY2009 reports.
*              41) October 5, 2009 by Emma Ernst for 2009 Reports
*
*  INPUTS:   1) HCSyyq_1 - DoD Quarterly HCS Database
*
*  OUTPUTS:  1) GROUP1-8.sas7bdat - DoD Quarterly GROUP files as defined above
*
*  INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                      values for consistency w/ TOPS
*
*  NOTES:    1) Groups 1-3 modified 10/09/2000
*
*            2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*               status variable for 2000).  H02077 was the Hispanic/Latino
*               variable.  In Q2_2002, H02077 is health status, and H02079
*               is the Hispanic/Latino variable.  To make the Quarter 2 data
*               file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*               the health status variable which was H02077 is now H04075,
*               and the Hispanic/Latino variable which was H02079 is now
*               H02077.
*
*************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards          ***/
%LET RCTYPE = ReportCards;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT "DATA";
LIBNAME IN1  "..\..\..\Data";
LIBNAME LIBRARY  "..\..\..\Data\fmtlib";


%LET WGT= CFW_V3;


TITLE1    'Program Saved as: STEP1Q.SAS';
```

```
proc format;
     value servreg 1 = 'North Army'
                   2 = 'North Air Force'
                   3 = 'North Navy'
                   4 = 'North Other'
                   5 = 'South Army'
                   6 = 'South Air Force'
                   7 = 'South Navy'
                   8 = 'South Other'
                   9 = 'West Army'
                  10 = 'West Air Force'
                  11 = 'West Navy'
                  12 = 'West Other'
                  13 = 'Europe Army'
                  14 = 'Europe Air Force'
                  15 = 'Europe Navy'
                  16 = 'Europe Other'
                  17 = 'Pacific Army'
                  18 = 'Pacific Air Force'
                  19 = 'Pacific Navy'
                  20 = 'Pacific Other'
                  21 = 'Latin America Army'
                  22 = 'Latin America Air Force'
                  23 = 'Latin America Navy'
                  24 = 'Latin America Other';

DATA ENTIRE;
   SET IN1.HCS09A_1(KEEP=
                 MPRID
                 FIELDAGE   /*MJS 01/26/04*/
                 XTNEXREG
                 SERVAFF    /*KRR 04/09/04*/
                 DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                 USA
                 XCATCH
                 ENBGSMPL
                 SREDA
                 XSEXA
                 XBNFGRP
                 STRATUM    /*KRR 04/03/2006, changed from ADJ_CELL*/
                 XINS_COV
                 XENR_PCM
                 XOCONUS    /*JSO 08/24/2006, Overseas Region Indicator*/
                 &WGT.
                 H09008A
                 H09028A
                 /* Getting Needed Care */
                 H09011A
                 H09013A
                 H09027A
                 H09029A
                 /* Getting Care Quickly */
                 H09017A
                 H09022A
                 H09019A
                 H09030A
                 /* How Well Doctors Communicate */
                 H09033A
                 H09034A
                 H09035A
                 H09036A
                 /* Courteous and Helpful Office Staff */
                 H09031A
                 H09032A
                 /* Customer Service */
                 H09043A
                 H09045A
                 H09047A
                 /* Claims Processing */
                 H09040A
                 H09041A /***************************/
                 H09063  /* Health Status           */
```

```
                 H09037A /* Health Care Rating      */
                 H09048A /* Health Plan Rating      */
                 H09009A /* Personal Doctor Rating  */
                 H09015A /* Specialist Rating       */
                 H09003  /* Health Plan Used            */ //*JSO 04/26/2007, added for
reservists logic*/
                 H09004  /* How Long in Health Plan  */
                     /****************************/
             );
       FORMAT _ALL_;


       IF SERVAFF='A' THEN XSERVAFF=1;           *Army;
          ELSE IF SERVAFF='F' THEN XSERVAFF=2;   *Air Force;
          ELSE IF SERVAFF='N' THEN XSERVAFF=3;   *Navy;
          ELSE XSERVAFF=4;                        *Other;

       IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

       IF XTNEXREG = . THEN DELETE;  /* RSG 02/2005 USE CACSMPL TO DELETE MISSING FIELDS*/

       IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

       NXNS_COV = XINS_COV;                  /*JSO 04/26/2007 added for reservists logic*/
                                         /*JSO   07/30/2007,   added   DBENCAT,   NXNS_COV
conditions*/
       IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
       IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
          NXNS_COV = 3;
          XENR_PCM = .;
       END;
                       /* Note:  use tmp_cell in step2q.sas */
       LENGTH TMP_CELL XSERVREG 8;
       TMP_CELL = STRATUM; /*KRR 04/03/2006, changed from ADJ_CELL*/

       IF XTNEXREG = 1 THEN DO;
          IF XSERVAFF = 1 THEN XSERVREG = 1;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
          ELSE XSERVREG = 4;
       END;

       IF XTNEXREG = 2 THEN DO;
          IF XSERVAFF = 1 THEN XSERVREG = 5;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
          ELSE XSERVREG = 8;
       END;

       IF XTNEXREG = 3 THEN DO;
          IF XSERVAFF = 1 THEN XSERVREG = 9;
          ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
          ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
          ELSE XSERVREG = 12;
       END;

       IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
          IF XOCONUS = 1 THEN DO;
             IF      XSERVAFF = 1 THEN XSERVREG = 13;
             ELSE IF XSERVAFF = 2 THEN XSERVREG = 14;
             ELSE IF XSERVAFF = 3 THEN XSERVREG = 15;
             ELSE                      XSERVREG = 16;
          END;
          IF XOCONUS = 2 THEN DO;
             IF      XSERVAFF = 1 THEN XSERVREG = 17;
             ELSE IF XSERVAFF = 2 THEN XSERVREG = 18;
             ELSE IF XSERVAFF = 3 THEN XSERVREG = 19;
             ELSE                      XSERVREG = 20;
          END;
          IF XOCONUS = 3 THEN DO;
             IF      XSERVAFF = 1 THEN XSERVREG = 21;
             ELSE IF XSERVAFF = 2 THEN XSERVREG = 22;
             ELSE IF XSERVAFF = 3 THEN XSERVREG = 23;
             ELSE                      XSERVREG = 24;
```

```
        END;
      END;

RENAME XCATCH=CACSMPL;
    WRWT=&WGT;

RUN;


*--------------------------------------------------;
* create variable names for catchment area dummies ;
*--------------------------------------------------;

*  create a file of catchment areas (UNIQUE) using the sort to drop;
*  all duplicate catchment areas leaving one record per;
*  unique catctment area code;
PROC SORT DATA=ENTIRE OUT=UNIQUE(KEEP=CACSMPL) NODUPKEY;
   BY CACSMPL;
RUN;

*  create a file (FILEA) with catchment areas codes and a catchment;
*  name consisting of "CAT" concatenated with a 4 digit number;
*  created by ting of "CAT" concatenated with a 4 digit number;
DATA FILEA (RENAME=(CACSMPL=START SERIAL=LABEL));
   SET UNIQUE;
   SERIAL+1;
   LENGTH FMTNAME $7 DUMNAME $7;
   FMTNAME='CACLOOK';
   DUMNAME= 'CAT' || PUT(CACSMPL, Z4.);
RUN;

PROC PRINT DATA=FILEA;
    TITLE2 '1 record per catchment area (use this file to create a format)';
RUN;

* create a format statement to be used to create CATINDX;
PROC FORMAT CNTLIN=FILEA;  RUN;

* create an include file for a complete set of catchment areas.
* Write out to a file (CDUMFILE.INC) of the catchment dummy variables;
DATA _NULL_;
   SET FILEA END=EOF;
   FILE 'CDUMFILE.INC';
   IF _N_ = 1 THEN DO;
      PUT @10  "ARRAY CATDUMS(*) 4";
   END;
   PUT    @15   DUMNAME $7.;

   IF EOF  THEN  PUT @10 ";";
RUN;



*****************************************************************************
* Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
* subsets. Create the region dummies.  Recode region 7 to region 8.
*****************************************************************************;
DATA ENTIRE;
   SET ENTIRE;
   LENGTH DEFAULT = 4;
   IF FIELDAGE NE "  " THEN DO;   /*MJS 01/26/04*/
      AGE1824=0;
      AGE2534=0;
      AGE3544=0;
      AGE4554=0;
      AGE5564=0;
      AGE6574=0;
      AGE75UP=0;
      IF      ( '018' <= FIELDAGE <= '024' ) THEN AGE1824=1;   /*MJS 01/26/04*/
      ELSE IF ( '025' <= FIELDAGE <= '034' ) THEN AGE2534=1;
      ELSE IF ( '035' <= FIELDAGE <= '044' ) THEN AGE3544=1;
      ELSE IF ( '045' <= FIELDAGE <= '054' ) THEN AGE4554=1;
      ELSE IF ( '055' <= FIELDAGE <= '064' ) THEN AGE5564=1;
      ELSE IF ( '065' <= FIELDAGE <= '074' ) THEN AGE6574=1;
      ELSE IF (           FIELDAGE  > '074' ) THEN AGE75UP=1;
```

```
         END;

         **************************************************************************
         * Create the FEMALE dummy variable.
         **************************************************************************;
         IF XSEXA = 2 THEN
            FEMALE = 1;
         ELSE
            FEMALE = 0;

         **************************************************************************
         * Create the beneficiary group/enrollment group subsets.
         **************************************************************************;
         GROUP1 = 0;
         GROUP2 = 0;
         GROUP3 = 0;
         GROUP4 = 0;
         GROUP5 = 0;
         GROUP6 = 0;
         GROUP7 = 0;
         GROUP8 = 1;      * EVERYONE;

         IF (NXNS_COV IN (1,2,6)  AND H09004>=2) THEN GROUP1 = 1;
         IF (XENR_PCM IN (1,2,6)  AND H09004>=2) THEN GROUP2 = 1;
         /* JSO 04/05/2007 conditions to run RC type */
         IF "&RCTYPE" = 'ReportCards' AND (XENR_PCM IN (3,7) AND H09004>=2) THEN GROUP3 = 1;
         ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND ((XENR_PCM IN (3,7) AND H09004>=2) OR
NXNS_COV IN (3,9)) THEN GROUP3 = 1;
         IF NXNS_COV IN   (3,9)        THEN GROUP4 = 1; /*JSO 08/24/2006, Deleted 4,5*//*JSO
07/30/2007, Added 9*/
         IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN GROUP5 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
         IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN GROUP6 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
         IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

         **************************************************************************
         * Recode variables with Never, Sometimes, Usually and Always:
         *     Recode Never & Sometimes (1 & 2) to 1.
         *     Recode Usually (3) to 2.
         *     Recode Always (4) to 3.
         **************************************************************************;

         IF H09028A = 2 THEN H09029A=3; /* ES 4/28/04 - Change in scoring method*/

         IF H09008A ne 1 THEN DO; /* MER 05/21/09 - Change for V3 backcasting */
            H09033A = .;
            H09034A = .;
            H09035A = .;
            H09036A = .;
         END;

         IF H09017A = 1     THEN R09017 = 1;
         ELSE IF H09017A = 2 THEN R09017 = 1;
         ELSE IF H09017A = 3 THEN R09017 = 2;
         ELSE IF H09017A = 4 THEN R09017 = 3;
         ELSE IF H09017A < 0 THEN R09017 = .;

         IF H09022A = 1     THEN R09022 = 1;
         ELSE IF H09022A = 2 THEN R09022 = 1;
         ELSE IF H09022A = 3 THEN R09022 = 2;
         ELSE IF H09022A = 4 THEN R09022 = 3;
         ELSE IF H09022A < 0 THEN R09022 = .;

         IF H09019A = 1     THEN R09019 = 1;
         ELSE IF H09019A = 2 THEN R09019 = 1;
         ELSE IF H09019A = 3 THEN R09019 = 2;
         ELSE IF H09019A = 4 THEN R09019 = 3;
         ELSE IF H09019A < 0 THEN R09019 = .;

         IF H09030A = 1     THEN R09030 = 1;
         ELSE IF H09030A = 2 THEN R09030 = 1;
         ELSE IF H09030A = 3 THEN R09030 = 2;
         ELSE IF H09030A = 4 THEN R09030 = 3;
```

```
ELSE IF H09030A < 0 THEN R09030 = .;

IF H09031A = 1      THEN R09031 = 1;
ELSE IF H09031A = 2 THEN R09031 = 1;
ELSE IF H09031A = 3 THEN R09031 = 2;
ELSE IF H09031A = 4 THEN R09031 = 3;
ELSE IF H09031A < 0 THEN R09031 = .;

IF H09032A = 1      THEN R09032 = 1;
ELSE IF H09032A = 2 THEN R09032 = 1;
ELSE IF H09032A = 3 THEN R09032 = 2;
ELSE IF H09032A = 4 THEN R09032 = 3;
ELSE IF H09032A < 0 THEN R09032 = .;

IF H09033A = 1      THEN R09033 = 1;
ELSE IF H09033A = 2 THEN R09033 = 1;
ELSE IF H09033A = 3 THEN R09033 = 2;
ELSE IF H09033A = 4 THEN R09033 = 3;
ELSE IF H09033A < 0 THEN R09033 = .;

IF H09034A = 1      THEN R09034 = 1;
ELSE IF H09034A = 2 THEN R09034 = 1;
ELSE IF H09034A = 3 THEN R09034 = 2;
ELSE IF H09034A = 4 THEN R09034 = 3;
ELSE IF H09034A < 0 THEN R09034 = .;

IF H09035A = 1      THEN R09035 = 1;
ELSE IF H09035A = 2 THEN R09035 = 1;
ELSE IF H09035A = 3 THEN R09035 = 2;
ELSE IF H09035A = 4 THEN R09035 = 3;
ELSE IF H09035A < 0 THEN R09035 = .;

IF H09036A = 1      THEN R09036 = 1;
ELSE IF H09036A = 2 THEN R09036 = 1;
ELSE IF H09036A = 3 THEN R09036 = 2;
ELSE IF H09036A = 4 THEN R09036 = 3;
ELSE IF H09036A < 0 THEN R09036 = .;

IF H09040A = 1      THEN R09040 = 1;
ELSE IF H09040A = 2 THEN R09040 = 1;
ELSE IF H09040A = 3 THEN R09040 = 2;
ELSE IF H09040A = 4 THEN R09040 = 3;
ELSE IF H09040A < 0 THEN R09040 = .;

IF H09041A = 1      THEN R09041 = 1;
ELSE IF H09041A = 2 THEN R09041 = 1;
ELSE IF H09041A = 3 THEN R09041 = 2;
ELSE IF H09041A = 4 THEN R09041 = 3;
ELSE IF H09041A < 0 THEN R09041 = .;

*************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
*************************************************************************;
R09011 = H09011A;  IF R09011 < 0 THEN R09011 = .;
R09009 = H09009A;  IF R09009 < 0 THEN R09009 = .;
R09013 = H09013A;  IF R09013 < 0 THEN R09013 = .;
R09015 = H09015A;  IF R09015 < 0 THEN R09015 = .;
R09027 = H09027A;  IF R09027 < 0 THEN R09027 = .;
R09029 = H09029A;  IF R09029 < 0 THEN R09029 = .;
R09037 = H09037A;  IF R09037 < 0 THEN R09037 = .;
R09043 = H09043A;  IF R09043 < 0 THEN R09043 = .;
R09045 = H09045A;  IF R09045 < 0 THEN R09045 = .;
R09047 = H09047A;  IF R09047 < 0 THEN R09047 = .;
R09048 = H09048A;  IF R09048 < 0 THEN R09048 = .;
R09063 = H09063;   IF R09063 < 0 THEN R09063 = .;

*************************************************************************
* Create region and service affiliation dummies.
*************************************************************************;
IF XSERVREG NE . THEN DO;  /*JSO 08/24/2006, Changed 16 to 24*/
   ARRAY REGDUMS (24) REG01 REG02 REG03 REG04 REG05 REG06
                      REG07 REG08 REG09 REG10 REG11 REG12
                      REG13 REG14 REG15 REG16 REG17 REG18
```

```
                             REG19 REG20 REG21 REG22 REG23 REG24;
      DO I = 1 TO 24;
         REGDUMS(I)=0;
      END;
      IF      XSERVREG= 1  THEN REG01  =1;
      ELSE IF  XSERVREG= 2  THEN REG02  =1;
      ELSE IF  XSERVREG= 3  THEN REG03  =1;
      ELSE IF  XSERVREG= 4  THEN REG04  =1;
      ELSE IF  XSERVREG= 5  THEN REG05  =1;
      ELSE IF  XSERVREG= 6  THEN REG06  =1;
      ELSE IF  XSERVREG= 7  THEN REG07  =1;
      ELSE IF  XSERVREG= 8  THEN REG08  =1;
      ELSE IF  XSERVREG= 9  THEN REG09  =1;
      ELSE IF  XSERVREG= 10 THEN REG10  =1;
      ELSE IF  XSERVREG= 11 THEN REG11  =1;
      ELSE IF  XSERVREG= 12 THEN REG12  =1;
      ELSE IF  XSERVREG= 13 THEN REG13  =1;
      ELSE IF  XSERVREG= 14 THEN REG14  =1;
      ELSE IF  XSERVREG= 15 THEN REG15  =1;
      ELSE IF  XSERVREG= 16 THEN REG16  =1;
      ELSE IF  XSERVREG= 17 THEN REG17  =1;
      ELSE IF  XSERVREG= 18 THEN REG18  =1;
      ELSE IF  XSERVREG= 19 THEN REG19  =1;
      ELSE IF  XSERVREG= 20 THEN REG20  =1;
      ELSE IF  XSERVREG= 21 THEN REG21  =1;
      ELSE IF  XSERVREG= 22 THEN REG22  =1;
      ELSE IF  XSERVREG= 23 THEN REG23  =1;
      ELSE IF  XSERVREG= 24 THEN REG24  =1;

      ARRAY SRVDUMS (4) SRV01 SRV02 SRV03 SRV04;
      DO I = 1 TO 4;    /*Needed for consumer watch ONLY */
         SRVDUMS(I)=0;
      END;
      IF      XSERVAFF = 1 THEN SRV01 = 1;
      ELSE IF  XSERVAFF = 2 THEN SRV02 = 1;
      ELSE IF  XSERVAFF = 3 THEN SRV03 = 1;
      ELSE IF  XSERVAFF = 4 THEN SRV04 = 1;

   END;
 *------------------------;
   * Create catchment dummies;
   *------------------------;
   %INCLUDE 'CDUMFILE.INC';   * this is array statement;
   CATINDX = INPUT(PUT(CACSMPL, CACLOOK.), 3.);
   DO I = 1 TO DIM(CATDUMS);
     CATDUMS(I) = 0;
   END;
   CATDUMS(CATINDX)=1;

RUN;

******************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
******************************************************************************;
%INCLUDE "CONVERT.SAS";

%CONT1(DSN=ENTIRE, NUM=7,  Y=R09011 R09013 R09027 R09029
                          R09043 R09045 R09047);
%CONT2(DSN=ENTIRE, NUM=4,  Y=R09037 R09048 R09009 R09015);
%CONT3(DSN=ENTIRE, NUM=12, Y=R09017 R09022 R09019 R09030
                          R09033 R09034 R09035 R09036
                          R09031 R09032 R09040 R09041);

******************************************************************************
* Sort the main file to reorder it by MPRID.
******************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

******************************************************************************
* Print the contents of ENTIRE dataset.
******************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;
```

```
*****************************************************************************
* Print some of the recoded records.
*****************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       FIELDAGE   /*MJS 01/26/04*/
       XTNEXREG
       XSERVAFF
       XSERVREG
       USA
       ENBGSMPL
       XSEXA
       STRATUM   /*KRR 04/03/2006 Changed from ADJ_CELL*/
       XINS_COV
       NXNS_COV  /*JSO 04/26/2007, added for reservists logic*/
       DBENCAT   /*JSO 04/26/2007, added for reservists logic*/
       XENR_PCM
       &WGT.
       ;
RUN;

*****************************************************************************
* Print some of the recoded records.
*****************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR FIELDAGE   /*MJS 01/26/04*/
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       NXNS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
       GROUP6
       GROUP7
       ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H09011A  R09011   /*MJS 03/24/04 Changed 2003 to 2004 variable names*/
       H09009A  R09009
       H09013A  R09013
       H09015A  R09015
       H09017A  R09017
       H09022A  R09022
       H09019A  R09019
       H09027A  R09027
       H09029A  R09029
       H09030A  R09030
       H09031A  R09031
       H09032A  R09032
       H09033A  R09033
       H09034A  R09034
       ;
RUN;
```

```
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H09035A  R09035
       H09036A  R09036
       H09037A  R09037
       H09040A  R09040
       H09041A  R09041
       H09043A  R09043
       H09045A  R09045
       H09047A  R09047
       H09048A  R09048
       H09063   R09063
      ;
RUN;


/*JSO 08/24/2006, Changed 16 to 24*/
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XSERVREG
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG22
       REG23
       REG24;
RUN;


PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded service affiliation variables';
   VAR XSERVREG
       XSERVAFF
       XOCONUS /*JSO 08/24/2006, Changed Overseas Regions*/
       SRV01
       SRV02
       SRV03
       SRV04
      ;
RUN;
proc freq data=entire;
table xservreg*cacsmpl/noprint out=temp;
proc sort; by cacsmpl count;
data out.xservind(keep=cacsmpl xservind);
set temp; by cacsmpl;
if last.cacsmpl;
if xservreg in (13,14,15,16) then xservreg=13;
if xservreg in (17,18,19,20) then xservreg=14;
if xservreg in (21,22,23,24) then xservreg=15;

rename xservreg=xservind;
proc sort data=entire;
by cacsmpl;
data entire;
```

```
        merge entire out.xservind; by cacsmpl;

        *****************************************************************************
        * Create the 7 subgroups for processing by STEP2.SAS.
        *****************************************************************************;
DATA OUT.GROUP1
        OUT.GROUP2
        OUT.GROUP3
        OUT.GROUP4
        OUT.GROUP5
        OUT.GROUP6
        OUT.GROUP7
        OUT.GROUP8;

        SET ENTIRE;

        DROP

           H09011A
           H09009A
           H09013A
           H09015A
           H09017A
           H09022A
           H09019A
           H09027A
           H09029A
           H09030A
           H09031A
           H09032A
           H09033A
           H09034A
           H09035A
           H09036A
           H09037A
           H09040A
           H09041A
           H09043A
           H09045A
           H09047A
           H09048A
           H09063
           ;
        IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
        IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
        IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
        IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
        IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
        IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
        IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
        OUTPUT OUT.GROUP8;
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  CONVERT.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (8687-330)
* PURPOSE:  CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES FOR CONSISTENCY
*           WITH THE TOPS SURVEY.
* WRITTEN:  October 2000 BY ERIC SCHONE
*
* MODIFIED: October 2000 BY KEITH RATHBUN, Added PROLOG.  Also, added DSN
*           to argument lists.
*
* INPUTS:  1) User-specified SAS Dataset
*
* OUTPUTS: 1) User-specified SAS Dataset with recoded values
*
* NOTES:
*
* 1) Arguments for the CONT1-CONT3 macros are as follows:
*    a) SAS dataset name (dsn)
*    b) Number of variables to be converted (num)
*    c) List of variables to be converted (y)
* 2) These macros assume that the response items have already been
*    converted/recoded to CAHPS scales.
*
*****************************************************************************
* CONT1 - Convert big problem, small problem, not a problem questions to
*         proportional values.
*****************************************************************************;
%macro cont1(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i = 1 to &num;
      if vars(i) ne . and vars(i) ne 3 then vars(i) = 0;
      if vars(i) = 3 then vars(i) = 1;
   end;
run;
%mend cont1;


*****************************************************************************
* CONT2 - Convert rating questions to proportional values.
*****************************************************************************;
%macro cont2(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) < 8 then vars(i) = 0;
      if vars(i) in (8,9,10) then vars(i) = 1;
   end;
run;
%mend cont2;


*****************************************************************************
* CONT3 - Convert Never, Sometimes, Usually, Always questions to
*         proportional values.
*****************************************************************************;
%macro cont3(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) >= 2 then vars(i) = 2;
      vars(i) = vars(i) - 1;
   end;
run;
%mend cont3;
```

```
/*********************************************************************************
/*  Project:  DoD - 2004 Adult Report Cards
/*  Program:  STEP2Q.SAS
/*  Purpose:  Draft Adult Report Card
/*  Requires program STEP1.SAS to have been run
/*  Programming specifications for adult report card
/*  The adult report card contains a large number of
/*  risk-adjusted scores.  Some scores are
/*  calculated from responses to individual survey questions.
/*  Composite scores are calculated by
/*  combining scores from individual questions.
/*  The scores then are compared with external civilian
/*  benchmarks.  The programming tasks involved in building
/*  the report card are:
/*       1)   preparing data for analyses
/*       2)   estimating risk adjustment models
/*       3)   calculating risk-adjusted values and variances
/*       4)   calculating benchmarks
/*       5)   comparing risk-adjusted values to benchmarks
/*            and hypothesis testing
/*
/*  Modified: 1) December 2001 By Mike Scott: Updated parameters for 2000 survey,
/*               added V612 to support SUDAAN with Version 8 SAS, changed STRATUM to
/*               TMP_CELL, and changed INTERCEP to INTERCEPT to support Version 8 SAS.
/*            2) January 2003 By Keith Rathbun: Added output files for SKELCAT and
/*               SKELREG (No longer permanent datasets... only needed by this program).
/*            3) January 2004 By Mike Scott: Updated for 2003 survey.
/*            4) February 2005 By Regina Gramss: Updated for 2004 survey
/*               changed codes to use XSERVREG for region.  Changed field
/*               names to use macro for year change.
/*               Adjustments were made By Eric Schone because of catchment
/*               areas lining up to multiple regions.
/*            5) January 2006 By Regina Gramss: Updated for 2005 survey.
/*            6) October 2006 By Keith Rathbun: Updated to accomodate the Overseas
/*               reporting updates done by Justin Oh in the quarterly version.
/*            7) November 9, 2007 By Keith Rathbun: Updated parameters for
/*               the 2007 survey.
/*            8) October 28, 2008 By Mike Rudacille: Updated parameters for
/*               the 2008 survey.
/*                9) October 6, 2009 by Emma Ernst: Updated paramters for 2009 survey
/*
/*  SUBGROUPS
/*  _____
/*     Seven subgroups          Definitions                    Reg or Catch  Macro
/*  _____
/* 1. Prime enrollees           XINS_COV IN(1,2,6) AND H08007>=4 Catchment    SCORE1
/* 2. Enrollees w/mil PCM        XENR_PCM IN(1,2,6) AND H08007>=4 Catchment    SCORE1
/* 3. Enrollees w/civ PCM        XENR_PCM = 3       AND H08007>=4 Region       SCORE2
/* 4. Nonenrollees              XINS_COV IN(3)                   Region       SCORE2
/* 5. Active duty               XBNFGRP=1                        Catchment    SCORE1
/* 6. Active duty dependents    XBNFGRP=2                        Region       SCORE2
/* 7. Retirees and dependents   XBNFGRP IN (3,4)                 Region       SCORE2
/*
/*  PREV PGM:  STEP1.SAS
/*  NEXT PGM:  COMPOSIT.SAS
/*********************************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE NOOVP STIMER COMPRESS=YES;
LIBNAME   IN1  "DATA";
LIBNAME   OUT  "DATA";
LIBNAME   OUT2 "DATA\ADULTTHATFILES";


    *------------------------------------;
    *-       set the parameters here    -;
    *------------------------------------;
    * set the number of Dependent variables to process;
    * One does not need to start at 1, but the max must be >= min;
    %LET MIN_VAR =  1;
    %LET MAX_VAR =  23;


    * set the number of subgroups to process;
    %LET MIN_GRP = 1;
```

```
%LET MAX_GRP = 8;

****************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
****************************************************************************;
%LET WGT      = CFW_V3;
%LET IND_VAR1 = R09063;
%LET IND_VAR2 =  ;  * FEMALE;
%LET IND_VAR3 =  ;  * SREDHIGH;
%LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;

%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;


****************************************************************************
* GETTING NEEDED CARE.
****************************************************************************;
%LET DEPVAR1 = R09011;
%LET DEPVAR2 = R09013;
%LET DEPVAR3 = R09027;
%LET DEPVAR4 = R09029;


****************************************************************************
* GETTING NEEDED CARE QUICKLY.
****************************************************************************;
%LET DEPVAR5 = R09017;
%LET DEPVAR6 = R09022;
%LET DEPVAR7 = R09019;
%LET DEPVAR8 = R09030;


****************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
****************************************************************************;
%LET DEPVAR9  = R09033;
%LET DEPVAR10 = R09034;
%LET DEPVAR11 = R09035;
%LET DEPVAR12 = R09036;


****************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
****************************************************************************;
%LET DEPVAR13 = R09031;
%LET DEPVAR14 = R09032;


****************************************************************************
* CUSTOMER SERVICE.
****************************************************************************;
%LET DEPVAR15 = R09043;
%LET DEPVAR16 = R09045;
%LET DEPVAR17 = R09047;


****************************************************************************
* CLAIMS PROCESSING.
****************************************************************************;
%LET DEPVAR18 = R09040;
%LET DEPVAR19 = R09041;


****************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
****************************************************************************;
%LET DEPVAR20 = R09037;


****************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
****************************************************************************;
%LET DEPVAR21 = R09048;
```

```
    *****************************************************************************
    * RATING OF PERSONAL DR: 0 - 10.
    *****************************************************************************;
    %LET DEPVAR22 = R09009;


    *****************************************************************************
    * SPECIALITY CARE: 0 - 10.
    *****************************************************************************;
    %LET DEPVAR23 = R09015;



    proc freq data=in1.group8;    /*MJS 01/23/04 Changed data set*/
       tables cacsmpl /missing list out=skelcat(keep=cacsmpl);
    run;
    data skelcat;
       set skelcat;
       if cacsmpl = " " then delete;
    run;

    /*RSG 02/2005 - put in hard code for skelreg vs. doing freq on data
                    since xservreg is not in data and must be coded*/

    DATA SKELREG;
       INPUT XSERVREG;
       DATALINES;
          1
          2
          3
          4
          5
          6
          7
          8
          9
          10
          11
          12
          13
          14
          15
          16
          17
          18
          19
          20
          21
          22
          23
          24
    ;
    RUN;


     %MACRO SCORE1;
     *********************************************;
     *     use this macro for groups 1, 2 & 5    *;
     *     catchment variables are to be used    *;
     *********************************************;
     %PUT *************************************;
     %PUT STARTING MACRO SCORE1;
     %PUT "GROUP    = " GROUP&IGRP;
     %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
     %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
     %PUT "IND_VAR1 = " &IND_VAR1;
     %PUT "IND_VAR2 = " &IND_VAR2;
     %PUT "IND_VAR3 = " &IND_VAR3;
     %PUT "WGT      = " &WGT;
     %PUT *************************************;

     *---------------------------------------------------;
     * If the current group is 1 use the skeleton files;
     * else used the previous groups output file;
     * The mrgfile is added to by each subgroup;
     *---------------------------------------------------;
```

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```
 %LET CMRGFILE = OUT.C_&&DEPVAR&IVAR;
 %IF "&IGRP" = "1" %THEN %LET CMRGFILE = SKELCAT;


* run regression using the catchment level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
      TITLE2 "Regression Model on catchment areas";
      TITLE3 "Beneficiary group&igrp: &&TITL&IGRP";
      WEIGHT &WGT;
      %INCLUDE 'REGRSCAT.INC';
      OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                        PRED&IGRP RESID&IGRP CACSMPL XSERVREG &&DEPVAR&IVAR)
               P = PRED&IGRP
               R = RESID&IGRP;
RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with PRED&IGRP and RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XSERVREG CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
   RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


*--------------------------------;
*-- get the standard err/variance;
*--------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
DATA ADJUST;
      SET MEANFILE;     * CREATED IN THE MACRO  MAKE_DAT;
      IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
      %INCLUDE 'RISKARRY.INC';
      %INCLUDE 'RISKMEAN.INC';
      DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN COEFFS(I) = 0;
        IF MEANS(I) = . THEN MEANS(I) = 0;
        ADJUST + ( COEFFS(I) * MEANS(I) );
      END;
      ADJUST = ADJUST + INTERCEPT;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=ADJUST;
        TITLE2 'Print of ADJUST';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* add the catchment coefficients to the adjusted value from above;
* output one record per catchment area with the catchment;
* level adjusted scores;
DATA COEFFCAC(KEEP=CATAREA NEWADJST);
   SET ADJUST;
   %INCLUDE 'CATARRAY.INC';
   LENGTH NAME $8;
   DO I=1 TO DIM(CATRHS);
```

```
          CALL VNAME(CATRHS(I),NAME);
          CATAREA=INPUT(SUBSTR(NAME,4,4),4.);
          IF CATRHS(I) = . THEN CATRHS(I) = 0;
          NEWADJST=ADJUST + CATRHS(I);
          OUTPUT;
      END;
   RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
     PROC PRINT DATA=COEFFCAC;
           TITLE2 'COEFFCAC: Catchment Area Adjusted Scores';
           TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     RUN;
%END;


 * sum of wgts per catchment areas;
 * attach the region id to the output file so;
 * so we can create wgts for each region later;
 PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
   ID    XSERVind ;  * important ;
   CLASS CACSMPL ;
   VAR   &WGT;
   OUTPUT OUT=CAT_WGTS(RENAME=(CACSMPL=CATAREA)) N=CATCNT SUM=CATWGT;
 RUN;


* merge the Coeffcac file with the catchment;
* adjusted scores to the catchment level weight;
* merge by the catchment area. creates a;
* catchment level file with catchment weights;
 DATA COEFFCAC;
   MERGE COEFFCAC(IN=IN1)
         CAT_WGTS(IN=IN2 KEEP=CATAREA XSERVind CATWGT CATCNT);
   BY CATAREA;
   IF IN1;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
     PROC PRINT DATA=CAT_WGTS(OBS=70);
           TITLE2 'CAT_WGTS: Catchment Area Sum of WGTS';
           TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     RUN;

     PROC PRINT DATA=COEFFCAC(OBS=70);
           TITLE2 'Catchment Area Adjusted Scores - with sum of wgts and region';
           TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     RUN;

%END;


* merge the previous groups catchment results (if any);
* with the catchment level std err and the catchment;
* level results from the current groups and dependent var;
%PUT "&CMRGFILE: " &CMRGFILE;
DATA OUT.C_&&DEPVAR&IVAR(RENAME=(NEWADJST=ADJ&IGRP));
     MERGE &CMRGFILE(IN=INS)
           C&IGRP&&DEPVAR&IVAR
           COEFFCAC(RENAME=(CATAREA=CACSMPL CATWGT=CATWGT&IGRP CATCNT=CATCNT&IGRP));
     BY CACSMPL;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
     TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;
```

```
%MEND SCORE1;




%MACRO SCORE2;
 ************************************;
 * use this macro for groups 3, 4, 6, 7;
 * region variables are to be used     ;
 ************************************;
 %PUT ***************************************;
 %PUT STARTING MACRO SCORE2;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP";
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ***************************************;

 %LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
 %IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                     PRED&IGRP RESID&IGRP CACSMPL XSERVREG &&DEPVAR&IVAR)
            P = PRED&IGRP
            R = RESID&IGRP;

RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XSERVREG CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
        TITLE2 "BETAS:  file with coefficients";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN COEFFS(I) = 0;
        IF MEANS(I) = .  THEN MEANS(I)  = 0;
        ADJUST + ( COEFFS(I) * MEANS(I) );
```

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```
       END;
       ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XSERVREG NEWADJST);
     SET ADJUST;
     %INCLUDE 'REGARRAY.INC';
     LENGTH NAME $8;
     DO I=1 TO DIM(REGRHS);
        CALL VNAME(REGRHS(I),NAME);
        XSERVREG=INPUT(SUBSTR(NAME,4,2),2.);
        IF REGRHS(I) = . THEN REGRHS(I) = 0;
        NEWADJST=ADJUST + REGRHS(I);
        OUTPUT;
     END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XSERVREG;
  VAR    &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT SUM=REGWGT;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XSERVREG REGCNT REGWGT);
      BY XSERVREG;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
/*PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT;
```

```
   CLASS   XSERVREG;
   VAR     NEWADJST;
   OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;
*/


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
         TITLE2 'Print of REGFILE1: Region Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
%PUT "&RMRGFILE: " &RMRGFILE;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
           coeffreg(rename=(newadjst=adj&igrp));
     BY XSERVREG;
     RENAME REGCNT = REGCNT&IGRP;
     RENAME REGWGT = REGWGT&IGRP;
     DEPENDNT = "&&DEPVAR&IVAR";
     IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
     TITLE2 "Print of REGION variables in &&DEPVAR&IVAR";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;


 %MEND SCORE2;


 *
;
 %MACRO MAKE_INC;
 **************************************;
 * creates include files for later Procs;
 * Needs to be run each time.  Called   ;
 * in the outer (beneficiary loop).     ;
 * I chose this method because it was   ;
 * clearer(to me at least).             ;
 * This macro needs to be run once per  ;
 * Dep var per subgroup.                ;
 **************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;



  DATA GROUP&IGRP;
       SET IN1.GROUP&IGRP;
       IF &&DEPVAR&IVAR NOT = .;

  RUN;

 DATA _NULL_;
     SET GROUP&IGRP END = EOF;
     IF &&DEPVAR&IVAR NOT = .;

     ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
     RETAIN AGECNT 0;
     RETAIN CNT 0;
     ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
     ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
     RETAIN AGENAM;
     RETAIN AGENAMX;
```

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```
     ARRAY CATCNT(9998) 8 CCNT0001 - CCNT9998;
     ARRAY REGCNT(24)   8 REGCNT01 - REGCNT24; *KRR 10/24/2006 - Changed from 16 to 24;
     RETAIN CATCNT 0;
     RETAIN REGCNT 0;

     * create a name array for the age dummies;
     IF _N_ = 1 THEN DO;
        AGENAM(1) = "AGE1824";
        AGENAM(2) = "AGE2534";
        AGENAM(3) = "AGE3544";
        AGENAM(4) = "AGE4554";
        AGENAM(5) = "AGE5564";
        AGENAM(6) = "AGE6574";
        AGENAM(7) = "AGE75UP";
     END;

     * total record count;
     CNT + 1;

     * count records in each age group;
     * we will use only age groups with more;
     * than 2 obs;
     IF AGE1824 = 1 THEN AGECNT(1) + 1;
     IF AGE2534 = 1 THEN AGECNT(2) + 1;
     IF AGE3544 = 1 THEN AGECNT(3) + 1;
     IF AGE4554 = 1 THEN AGECNT(4) + 1;
     IF AGE5564 = 1 THEN AGECNT(5) + 1;
     IF AGE6574 = 1 THEN AGECNT(6) + 1;
     IF AGE75UP = 1 THEN AGECNT(7) + 1;

     * count records in each catchment group;
     * we will only use catchment areas ;
     * with more than than 2 obs;
     * I am using the catchment area as the subscript;
     * to make the code simpler and more readable;
     IF CACSMPL >= 1 AND CACSMPL <= 9998 THEN DO;
        CATCNT(CACSMPL) = CATCNT(CACSMPL) + 1;
     END;

     * count records in each REGION group;
     * we will only use REGIONS ;
     * with more than than 2 obs;
     * I am using the region value as the subscript;
     * to make the code simpler and more readable;
     IF XSERVREG >= 1 AND XSERVREG <=24  THEN DO; *KRR 10/24/2006 - Changed from 16 to 24;
        REGCNT(XSERVREG) = REGCNT(XSERVREG) + 1;
     END;

     IF EOF THEN GOTO ENDFILE;
     RETURN;


ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 24; *KRR 10/24/2006 - Changed from 16 to 24;
           IF(REGCNT(I) > 0) THEN DO;
              PUT  'REG' I Z2. REGCNT(I) 6.;
           END;
```

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```
        END;
        PUT ' ';

        DO I = 1 TO 9998;
            IF(CATCNT(I) > 0) THEN DO;
                PUT  'CAT' I Z4. CATCNT(I) 6.;
            END;
        END;
        PUT ' ';
%END;     *** of debug test;


        *-------------------------------------------------------;
        * create an include file for the regression model;
        * it is inconvient, but SAS requires that the;
        * include file start after a complete statement;
        * i.e. after a semicolon;
        * This include is for the regression using catchment areas;
        FILE 'REGRSCAT.INC';
        PUT @6  "MODEL &&DEPVAR&IVAR = ";
        IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
        IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
        IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

        CNT2 = 0;
        * setup an array of those age groups that have > 1 obs;
        DO I = 1 TO 7;
            IF AGECNT(I) > 1 THEN DO;
                CNT2 +1;
                AGENAMX(CNT2) = AGENAM(I);
            END;
        END;
        * drop the last category to create;
        * an omitted category which is required;
        * to solve the regression properly;
        DO I = 1 TO CNT2-1;
            PUT @12 AGENAMX(I);
        END;


        * ditto for the catchment areas with > 0 obs;
        * in this case we drop the last non-zero cnt;
        * this is not consistent with Portias code which;
        * unintentionally omitted several catchment area codes;
        LAST_REC = 0;
        DO I = 1 TO 9998;
            IF CATCNT(I) > 0 THEN LAST_REC = I;
        END;

        * skip the last cacsmpl with > 1 obs;
        DO I = 1 TO LAST_REC-1;
            IF CATCNT(I) > 0 THEN DO;
                PUT @12 'CAT' I Z4.;
            END;
        END;
        PUT @11 ';';


        *-------------------------------------------------------;
        * This include is for the regression using regions;
        * in this case we drop the last REGION;
        FILE 'REGRSREG.INC';
        PUT @6  "MODEL  &&DEPVAR&IVAR = ";
        IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
        IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
        IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

        CNT2 = 0;
        * setup an array of those age groups that have > 1 obs;
        DO I = 1 TO 7;
            IF AGECNT(I) > 1 THEN DO;
                CNT2 +1;
                AGENAMX(CNT2) = AGENAM(I);
            END;
```

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```
      END;

      * now drop the last category to create;
      * an omitted category which is required;
      * to solve the regression properly;
      DO I = 1 TO CNT2-1;
         PUT @12 AGENAMX(I);
      END;

      * ditto for the catchment areas with > 0 obs;
      * in this case we drop the the first USABLE category;
      * this is not consistent with the catchment area code;
      * but this is the method that Portia used;
      FIRST = 0;          *KRR 10/24/2006 - Changed from 16 to 24;
      DO I = 1 TO 24;    * skip the 1st region with 1+ obs;
         IF REGCNT(I) > 0 THEN DO;
            IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
            FIRST = 1;
         END;
      END;
      PUT @11 ';';


      *----------------------------------------------------------;
      * now create the complete var statement;
      * for the Proc MEANS used to replace the;
      * independent variables missing values;
      * we assume the age groups will always be used;
      * These are also called the RISK FACTORS;
      FILE 'RISKVARS.INC';
      PUT @10  "VAR";
      DO I = 1 TO CNT2;
         PUT @12 AGENAMX(I);
      END;

      * not all the other dependent variables will be used;
      * only write them out if they are not null;
      CNT3 = 0;
      IF "&IND_VAR1" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR1";
      END;

      IF "&IND_VAR2" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR2";
      END;

      IF "&IND_VAR3" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR3";
      END;
      PUT @11 ';';


      *----------------------------------------------------------;
      * create an ARRAY statement of the desired risk factors;
      * called adjusters in the specs and in the code;
      FILE 'RISKARRY.INC';
      PUT @10  "ARRAY COEFFS(*) $8";
      DO I = 1 TO CNT2;
         PUT @12 AGENAMX(I);
      END;

      CNT3 = 0;
      IF "&IND_VAR1" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR1";
      END;

      IF "&IND_VAR2" NE "" THEN DO;
          CNT3 + 1;
          PUT @12 "&IND_VAR2";
      END;
```

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```
       IF "&IND_VAR3" NE "" THEN DO;
           CNT3 + 1;
           PUT @12 "&IND_VAR3";
       END;
       PUT @11 ';';


       *---------------------------------------------------------;
       * create an ARRAY of mean names for the output;
       * from a proc MEANS of the Risk Factors in RISKARRY;
       FILE 'RISKMEAN.INC';
       IND_CNT = CNT2 + CNT3;
       PUT @6 "ARRAY MEANS(*) $8";
       DO I = 1 TO IND_CNT;
           PUT @12 "MEAN" I Z2.;
       END;
       PUT @11 ';';

  *    ---------------------------------------------------;
  *    create the equivalent of the following statement;
  *    OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
       FILE 'MEANFILE.INC';
       PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
       DO I = 1 TO IND_CNT;
           PUT @12 "MEAN" I Z2.;
       END;
       PUT @11 ';';

       *---------------------------------------------------------;
       * create a catchment area array for all catchment areas;
       * with 1+ obs.
       * the missing value = 9999 was dropped in STEP1;  ** rlc 4/29/00;
       FILE 'CATARRAY.INC';
       PUT @10  "ARRAY CATRHS(*) $8";
       DO I = 1 TO 9998;            *** rlc 4/29/00 changed "9999" to "9998";
          IF CATCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
              PUT  @16 'CAT' I Z4.;
          END;
       END;
       PUT @11 ';';

       *---------------------------------------------------------;
       * create a region area array;
       * with at least ONE obs;
       FILE 'REGARRAY.INC';
       PUT @10  "ARRAY REGRHS(*) $8";
       DO I = 1 TO 24; *KRR 10/24/2006 - Changed from 16 to 24;
          IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
              PUT  @16 'REG' I Z2.;
          END;
       END;
       PUT @11 ';';
  file print;
  RUN;

  * Create the means of the adjuster variables;
  * They will be used to replace missing adjuster variables;
  * calculate weighted means;
  PROC MEANS DATA=group&igrp;

    WEIGHT &WGT;
    %INCLUDE 'RISKVARS.INC';
    %INCLUDE 'MEANFILE.INC';
     RUN;

  DATA GROUP&IGRP;
      SET GROUP&IGRP;
      IF _N_ = 1 THEN SET MEANFILE;
      %INCLUDE 'RISKARRY.INC';
      %INCLUDE 'RISKMEAN.INC';
      DO I = 1 TO DIM(COEFFS);
          IF COEFFS(I) = . THEN DO;
              COEFFS(I) = MEANS(I);
```

```
            END;
         END;
    RUN;

    %IF &DEBUGFLG > 0  %THEN %DO;
       PROC PRINT DATA=MEANFILE;
            TITLE2 "Print of MEANFILE for Risk Adjuster variables";
            TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
       RUN;
    %END;




     %MEND MAKE_INC;



     *
    ;
     %MACRO R_SUDAAN(INFILE);
     ***************************************************;
     * use this macro to create standard err (variances);
     * FOR: REGIONS                                    ;
     ***************************************************;
     %PUT ***************************************;
     %PUT STARTING MACRO R_SUDAAN (REGIONS);
     %PUT ***************************************;



    DATA &INFILE;
       SET &INFILE;
       IF XSERVREG > 0;
    RUN;


    * Sort data by TMP_CELL;
    PROC SORT DATA=&INFILE;
       BY TMP_CELL;
    RUN;

    %IF &DEBUGFLG > 5  %THEN %DO;
       PROC PRINT DATA=&INFILE(OBS=5);
            TITLE2 'Print of the input file to SUDAAN (REGION)';
            TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
       RUN;
    %END;


    * Calculate values for regions;
    PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
       WEIGHT &WGT;
       SETENV DECWIDTH=4;
       NEST TMP_CELL / missunit;
       VAR RESID&IGRP;
       TABLES XSERVREG;
       SUBGROUP XSERVREG;
       LEVELS 24; *KRR 10/24/2006 - Changed from 16 to 24;
       OUTPUT  SEMEAN
            / TABLECELL=DEFAULT REPLACE
              FILENAME=RS&DEP;
       RUN;

       DATA R&IGRP&&DEPVAR&IVAR;
            SET RS&DEP;
            KEEP XSERVREG SEMEAN;
            IF SEMEAN NE .;
            RENAME SEMEAN = SEMEAN&IGRP;
       RUN;


       PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
          TITLE2 "Print REGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
```

```
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  R_SUDAAN;


 %MACRO C_SUDAAN(INFILE);
 **************************************************;
 * use this macro to create standard err (variances);
 * FOR: CATCHMENT AREAS                            ;
 **************************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO C_SUDAAN (CATCHMENT);
 %PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF CACSMPL > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN for CATCHMENT';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES CACSMPL;
   SUBGROUP CACSMPL;
   LEVELS 9998;
   OUTPUT  SEMEAN
        / TABLECELL=DEFAULT REPLACE
           FILENAME=CS&DEP;
   RUN;

   DATA C&IGRP&&DEPVAR&IVAR;
        SET CS&DEP;
        IF SEMEAN NE .;
        KEEP CACSMPL SEMEAN;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=C&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print CATCHMENT DESCRIPT DATA=C&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  C_SUDAAN;


 *
;
%*********************************;
%*  call the macros;
%*********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
```

```
            %MAKE_INC;
            %IF &IGRP = 1 OR &IGRP = 2 OR &IGRP = 5 or &igrp = 8 %THEN %do;
                %SCORE1;
                %SCORE2; %end;
            %ELSE
                %SCORE2;
        %END;
      %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

```
MODEL  R09015 =
       R09063
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG22
       REG23
       REG24
       ;
```

```
ARRAY COEFFS(*) $8
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
 ;
```

```
ARRAY MEANS(*) $8
        MEAN01
        MEAN02
        MEAN03
        MEAN04
        MEAN05
        MEAN06
        ;
```

```
ARRAY REGRHS(*) $8
        REG01
        REG02
        REG03
        REG04
        REG05
        REG06
        REG07
        REG08
        REG09
        REG10
        REG11
        REG12
        REG13
        REG14
        REG15
        REG16
        REG17
        REG18
        REG19
        REG20
        REG21
        REG22
        REG23
        REG24
    ;
```

```
VAR
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
;
```

```
OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN =
      MEAN01
      MEAN02
      MEAN03
      MEAN04
      MEAN05
      MEAN06
    ;
```

```
*****************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified: 1) 02/27/2001 By Keith Rathbun, Small changes to input DSNs to
*              accommodate the move of ALLSCORE.SAS functionality into the
*              STEP2Q.SAS program.
*           2) 01/08/2002 By Daniele Beahm, Changed versions in libname statements
*              so program can be run with SAS v8 and still produce SAS v612 datasets.
*           3) 04/10/2002 By Mike Scott, Updated variable names for 2002
*              survey.
*           4) 02/04/2004 By Mike Scott, Updated for the 2003 Annual Report.
*           5) 02/2004 By Regina Gramss, Updated for 2004 Annual Report.  Added
*              in conditions to avoid exponential of negative numbers.  In case
*              of negative trend, error list is printed out - composit.lst file
*              should be evaluated (search for "ERROR") to make sure number of
*              obs is less than 30 for those with negative trend (field: tv).
*           6) 01/2006 By Regina Gramss, updated for 2005.
*           7) 10/2006 By Keith Rathbun, updated for 2006. Use FWRWT.
*           8) 10/6/09 by Emma Ernst, updated for 2009 database.  Use annual weights
*****************************************************************************;
OPTIONS NOCENTER NOFMTERR LS=132 PS=78 SOURCE SOURCE2 NOOVP COMPRESS=YES;
libname in  "data";
libname in2 "data\adulthatfiles";
libname out "data";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XSERVREG');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

  ****************************************;
  *   Create a Composite Score           ;
  ****************************************;
  DATA _NULL_;
      FILE 'FILES.INC';
      PUT @6 'SET';
      IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
      IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
      IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
      IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
      PUT @8 ';';
  RUN;


  DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE 'FILES.INC';
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
  RUN;

  PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
  RUN;

  PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
  RUN;

  DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
```

```
        BY &BYVAR;
    %IF "&TYPE" = "R" %THEN %DO;
        ARRAY N(*) REGCNT1 - REGCNT8;
        ARRAY W(*) REGWGT1 - REGWGT8;
        ARRAY TN(*) TOTCNT1 - TOTCNT8;
        ARRAY TW(*) TOTWGT1 - TOTWGT8;
    %END; %ELSE
    %IF "&TYPE" = "C" %THEN %DO;
        ARRAY N(*) CATCNT1 - CATCNT8;
        ARRAY W(*) CATWGT1 - CATWGT8;
        ARRAY TN(*) TOTCNT1 - TOTCNT8;
        ARRAY TW(*) TOTWGT1 - TOTWGT8;
    %END;
        ARRAY ADJ(*)    ADJ1 - ADJ8;
        ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
        ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
        RETAIN TOTADJ TN TW;
        RETAIN AVGADJ;

        IF FIRST.&BYVAR THEN DO;
            DO I = 1 TO DIM(TOTADJ);
                TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
            END;
        END; DROP I;

        PUT ' ';
        PUT ' --- STARTING LOOP1: ' &BYVAR=;
        DO I = 1 TO DIM(TOTADJ);
            PUT I= ADJ(I)=;
            IF ADJ(I) NE . THEN DO;
                TOTADJ(I) = TOTADJ(I) + ADJ(I);
                TN(I)=TN(I)+N(I);
                TW(I)=TW(I)+W(I);
            END;
            PUT I= ADJ(I)= TOTADJ(I)=;
        END;


        PUT ' ';
        PUT ' --- STARTING LOOP2: ' &BYVAR=;
        IF LAST.&BYVAR THEN DO;
            DO I = 1 TO DIM(TOTADJ);
                PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
                AVGADJ(I) = TOTADJ(I)/&QCOUNT;
                adj(i)=avgadj(i);
                N(I)=TN(I)/&QCOUNT;
                W(I)=TW(I)/&QCOUNT;
            END;
            OUTPUT;
        END;

 RUN;

%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
 %if &type=R|(&i=1|&i=2|&i=5|&i=8) %then %do;
  %if &var1~= %then %do;
   %let n=r_&var1;
   %let m=s_&var1;

   data s_&var1(rename=(semean&i=s_&var1));
   set in.&type._&var1(keep=semean&i &byvar);
   proc sort; by &byvar;
   data r_&var1;

   set in2.h&i.&var1(rename=(resid&i=r_&var1));

   proc sort data=r_&var1; by mprid;
  %end;
  %if &var2~= %then %do;
   %let n=%str(&n r_&var2);
   %let m=%str(&m s_&var2);
   data s_&var2(rename=(semean&i=s_&var2));
   set in.&type._&var2(keep=semean&i &byvar);
```

```
      proc sort; by &byvar;
      data r_&var2;

      set in2.h&i.&var2(rename=(resid&i=r_&var2));

      proc sort data=r_&var2; by mprid;
     %end;
     %if &var3~= %then %do;
      %let n=%str(&n r_&var3);
      data s_&var3(rename=(semean&i=s_&var3));
      set in.&type._&var3(keep=semean&i &byvar);
      proc sort; by &byvar;
      data r_&var3;

      set in2.h&i.&var3(rename=(resid&i=r_&var3));

      proc sort data=r_&var3; by mprid;
      %let m=%str(&m s_&var3); %end;

     %if &var4~= %then %do;
      %let n=%str(&n r_&var4);
      data s_&var4(rename=(semean&i=s_&var4));
      set in.&type._&var4(keep=semean&i &byvar);
      proc sort; by &byvar;
      data r_&var4;

      set in2.h&i.&var4(rename=(resid&i=r_&var4));


      %let m=%str(&m s_&var4);
      proc sort data=r_&var4; by mprid;
     %end;
   /* Merge residual files and estimate correlations */
      data infile;
      merge &n; by mprid;
      proc sort; by &byvar;
      proc corr  outp=outf noprint;
      by &byvar;
      var &n;
      weight cfw_v3;
      data outf;
      set outf; by &byvar;
      where _type_='CORR';
    /*   sum standard error of a row variable times correlation times standard error of each
column variable, then sum sums and take square root, divide by number of variables */
      data final;
      merge &m outf; by &byvar;
      data final;
      set final; by &byvar;
      array r_val &n;
      array s_val &m;
      sde=0;
      do i=1 to dim(s_val);
       %do j=1 %to &qcount;
        if upcase(_name_)=upcase("R_&&var&j") then
        sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
       %end;
      end;
      run;

      data sefin&compos._&i errd;
      set final; by &byvar;
      if first.&byvar then tv=0;
      tv+sde;
      if last.&byvar then do;
    /**RSG 02/2005 Changed to only do exponential if tv value is non-negative -
      those with negative trend is set aside to print out and determine whether from
      nonmissing data of 30 or more*/
      if tv >= 0 then sde&i=(tv**.5)/&qcount;
      else if tv <= 0 then do;
       output errd;
       sde&i=.;
      end;
      output sefin&compos._&i;
```

```
  end;
  run;
/**RSG 02/2005 Count how many nonmissing values are in the trend dataa
  to determine if negative trend is something to be concerned about*/
  proc means data=infile noprint;
  by &byvar;
  var &n;
  output out=missing (drop=_type_ _freq_) n=;
  data errd2;
  merge errd(in=a drop=&n) missing (in=b);
  by &byvar;
  if a;
  run;
  proc print data=errd2;
  var &byvar tv &n;
title "ERROR: NEGATIVE TREND FOR &N IN GROUP=&I. AND COMPOSE=&COMPOS";
  run;
title ' '; /*RSG 02/2005 blank out title for next loop*/

  %if &i=1 %then %do;
   data sefin&compos;
   set sefin&compos._1(keep=&byvar sde&i); by &byvar;
   rename sde&i=semean&i;
   run;
  %end;
  %else %do;
   data sefin&compos;
   merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
   rename sde&i=semean&i;
   run;
  %end;


 %end;
%end;

data out.&type.compos&compos;
merge compos&compos sefin&compos; by &byvar;
run;
PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
     TITLE1 COMPTITL;
 RUN;
%MEND COMPOSIT;

*------------------------------------;
*-      set the parameters here     -;
*------------------------------------;
***********************************;
*  call the macro for each composite;
***********************************;   /*MJS 02/04/04*/
%COMPOSIT (type=R,compos=1,var1=R09013,var2=R09027,qcount=2);
%COMPOSIT (type=R,compos=2,var1=R09022,var2=R09019,qcount=2);
%COMPOSIT (type=R,compos=3,var1=R09033,var2=R09034,var3=R09035,var4=R09036,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R09031,var2=R09032,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R09043,var2=R09045,var3=R09047,qcount=3);
%COMPOSIT (type=R,compos=6,var1=R09040,var2=R09041,qcount=2);

%COMPOSIT (type=C,compos=1,var1=R09013,var2=R09027,qcount=2);
%COMPOSIT (type=C,compos=2,var1=R09022,var2=R09019,qcount=2);
%COMPOSIT (type=C,compos=3,var1=R09033,var2=R09034,var3=R09035,var4=R09036,qcount=4);
%COMPOSIT (type=C,compos=4,var1=R09031,var2=R09032,qcount=2);
%COMPOSIT (type=C,compos=5,var1=R09043,var2=R09045,var3=R09047,qcount=3);
%COMPOSIT (type=C,compos=6,var1=R09040,var2=R09041,qcount=2);
```

```
SET
  IN.C_R09040
  IN.C_R09041
  ;
```

```
*****************************************************************************
*
*   PROJECT:  DoD - Quarterly Adult Report Cards
*   PROGRAM:  STEP1Q.SAS
*   PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
*                     Create a Female dummy variable
*                     Create an Education dummy variable
*                     Create 15 region dummies combining regions.
*                             7 & 8 into region 8. That is, there
*                             isn't a region 7 dummy.
*                     Create 7 age dummy variables.
*
*             We require the most desired code to be the highest value.
*             Recode the dependent variables into:
*                     1 - the least desirable value
*                     2 - the 2nd least desirable value
*                     3 - the most desirable value
*                     . - missing
*
*             Create 7 variables GROUP1 - GROUP7
*                     IF (XINS_COV IN (1,2,6) AND H09004>=2) THEN GROUP1 = 1
*                     IF (XENR_PCM IN (1,2,6) AND H09004>=2) THEN GROUP2 = 1
*                     IF (XENR_PCM = 3,7      AND H09004>=2) THEN GROUP3 = 1
*                     IF XINS_COV IN (3)                     THEN GROUP4 = 1
*                         /*JSO 08/24/2006, Deleted 4,5*/
*                     IF XBNFGRP = 1                         THEN GROUP5 = 1
*                     IF XBNFGRP = 2                         THEN GROUP6 = 1
*                     IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
*                     GROUP8 is output for all beneficiaries
*
*   MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
*                adult report cards.  Removed permanent dataset ENTIRE.SD2.
*             2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
*                for 3rd quarter adult report cards
*             3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
*                stratification done in Q3, changed all references of the
*                POSTSTR variable to ADJ_CELL
*             4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
*                XENR_PCM
*             5) April 2002 By Mike Scott, Updated variable names for 2002
*                survey.
*             6) July 2002 By Mike Scott: See Note #2.  Replaced variable
*                S02S01 with H04075 (new health status variable), deleted
*                code to recode S02S01 to H00077, and changed H00077/R00077
*                rename/recode to H04075/R04075 rename/recode.  The Hispanic/
*                Latino variable is not present.
*             7) January 2003 By Mike Scott, Changed ADJ_CELL to COM_SAMP.
*             8) March 2003 By Mike Scott, Updated variable names for 2003
*                survey.
*             9) June 2003 By Mike Scott, Updated for Q2 2003.
*             10) July 2003 By Mike Scott, Changed COM_SAMP to ADJ_CELL.
*             11) October 2003 By Mike Scott, Updated for Q3 2003.
*             12) January 2004 By Mike Scott, Updated for Q4 2003, and changed
*                DAGEQY to FIELDAGE.
*             13) March 2004 By Mike Scott, Updated for Q1 2004.
*             14) April 2004 By Keith Rathbun, Removed reverse coding for
*                H04031.  2004 survey question wording is 'Within 15 minutes'
*                instead of "More than 15 Minutes".  Added service affiliation
*                variables so only one version of this program is needed to
*                handle the consumer watch processing.
*             15) June 2004 by Regina Gramss, Updated for Q2 2004.
*             16) Sept 2004 by Regina Gramss, changed XRegion to xtenxreg, updated for Q3
2004.
*             17) Jan 2005 by Regina Gramss, changed XTENXREG to XSERVREG to include
*                service affiliation.  Regions have been changed from 4 categories to 16.
*             18) Apr 2005 by Regina Gramss, updated field names for 2005 data.
*             19) Jul 2005 by Regina Gramss, updated for Q2 2005
*             20) Oct 2005 by Regina Gramss, updated for Q3 2005
*             21) Dec 2005 by Regina Gramss, updated for Q4 2005
*             22) March 21, 2006 by Keith Rathbun, updated variable names
```

```
*                for Q2 FY 2006.  Changed references to ADJ_CELL to be STRATUM.
*          23) July 12, 2006 by Justin Oh, updated for Q3 FY 2006
*          24) Aug 22, 2006 by Justin Oh, changed overseas to 3 regions.
*                Regions have been changed from 16 categories to 24.
*                Added XOCONUS to the Keep statement for Overseas classifications.
*                Changed XSERVREG for Overseas (Europe,Pacific,Latin America).
*                Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
*                        IF XINS_COV IN (3)     THEN GROUP4 = 1
*                Since only XINS_COV IN (1,2,3,6) is kept, (4,5) not needed.
*          25) Oct 03, 2006 by Justin Oh, changed input data HCS063_1 to HCS064_1
*                for Q4FY2006 reports.
*          26) Apr 05, 2007 by Justin Oh, Added %LET BCHTYPE to select BCH types
*                Benchmark OR PurchasedBenchmark.
*          27) Apr 05, 2007 by Justin Oh, Added changes to select RC types
*                ReportCards OR PurchasedReportCards.
*          28) Apr 26, 2007 by Justin Oh, Added codes, variables for new
*                reservists logic.
*          29) May 15, 2007 by Justin Oh, Changed XINS_COV to NXNS_COV to assign
*                Groups 1,3, and 4 for new reservists logic.
*          30) Jul 30, 2007 by Justin Oh, Added added DBENCAT conditions to assign
*                Groups All, 4, 5, and 6.
*          31) Oct 02, 2007 by Justin Oh, changed input data HCS073_1 to HCS074_1
*                for Q4FY2007 reports.
*          32) January 10, 2008 by Keith Rathbun, updated variable names
*                for Q1 FY 2008.
*          33) Apr 11, 2008 by Justin Oh, changed input data HCS081_1 to HCS082_1
*                for Q2FY2008 reports.
*          34) June 13, 2008 by Keith Rathbun, changed input data HCS082_1 to HCS083_1
*                for Q3FY2008 reports.
*          35) Jan 16, 2009 by Mike Rudacille, changed CONUS variable to USA
*          36) Jan 21, 2009 by Mike Rudacille, changed 2009 questionnaire variables
*                applicable to both V3 and V4 from V3 names to V4 names
*          37) March 11, 2009 by Keith Rathbun, changed input data HCS091_1 to HCS092_1
*                for Q2FY2009 reports.
*          38) April 6, 2009 by Mike Rudacille, changed variable names to reflect
*                modifications to beneficiary reports necessary for V4
*          39) June 22, 2009 By Keith Rathbun, Change weight variable from
*                FWRWT_V4 back to FWRWT.  Changed input data HCS092_1 to HCS093_1
*                for Q3FY2009 reports.
*          40) Sept 30, 2009 By Mike Rudacille, Changed input data HCS093_1 to HCS094_1
*                for Q4FY2009 reports.
*                41) October 5, 2009 by Emma Ernst for 2009 Reports
*
*   INPUTS:   1) HCSyyq_1 - DoD Quarterly HCS Database
*
*   OUTPUTS:  1) GROUP1-8.sas7bdat - DoD Quarterly GROUP files as defined above
*
*   INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                              values for consistency w/ TOPS
*
*   NOTES:    1) Groups 1-3 modified 10/09/2000
*
*             2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*                status variable for 2000).  H02077 was the Hispanic/Latino
*                variable.  In Q2_2002, H02077 is health status, and H02079
*                is the Hispanic/Latino variable.  To make the Quarter 2 data
*                file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*                the health status variable which was H02077 is now H04075,
*                and the Hispanic/Latino variable which was H02079 is now
*                H02077.
*
****************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards          ***/
%LET RCTYPE = ReportCards;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT "DATA";
LIBNAME IN1  "..\..\..\Data";
LIBNAME LIBRARY  "..\..\..\Data\fmtlib";


%LET WGT= CFW_V4;


TITLE1    'Program Saved as: STEP1Q.SAS';
```

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```
proc format;
     value servreg 1 = 'North Army'
                   2 = 'North Air Force'
                   3 = 'North Navy'
                   4 = 'North Other'
                   5 = 'South Army'
                   6 = 'South Air Force'
                   7 = 'South Navy'
                   8 = 'South Other'
                   9 = 'West Army'
                  10 = 'West Air Force'
                  11 = 'West Navy'
                  12 = 'West Other'
                  13 = 'Europe Army'
                  14 = 'Europe Air Force'
                  15 = 'Europe Navy'
                  16 = 'Europe Other'
                  17 = 'Pacific Army'
                  18 = 'Pacific Air Force'
                  19 = 'Pacific Navy'
                  20 = 'Pacific Other'
                  21 = 'Latin America Army'
                  22 = 'Latin America Air Force'
                  23 = 'Latin America Navy'
                  24 = 'Latin America Other';

   DATA ENTIRE;
      SET IN1.HCS09A_1(KEEP=
                   MPRID
                   FIELDAGE   /*MJS 01/26/04*/
                   XTNEXREG
                   SERVAFF    /*KRR 04/09/04*/
                   DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                   USA
                   ENBGSMPL
                   SREDA
                   XSEXA
                           XCATCH
                   XBNFGRP
                   STRATUM    /*KRR 04/03/2006, changed from ADJ_CELL*/
                   XINS_COV
                   XENR_PCM
                   XOCONUS    /*JSO 08/24/2006, Overseas Region Indicator*/
                   &WGT
                   QUARTER
                   /* Getting Needed Care */
                   H09033
                   H09029
                   /* Getting Care Quickly */
                   H09007
                   H09010
                   /* How Well Doctors Communicate */
                   H09021
                   H09022
                   H09023
                   H09024
                   /* Customer Service */
                   H09040
                   H09041
                   /* Claims Processing */
                   H09045
                   H09046  /***************************/
                   H09063  /* Health Status          */
                   H09018  /* Health Care Rating      */
                   H09047  /* Health Plan Rating      */
                   H09027  /* Personal Doctor Rating  */
                   H09031  /* Specialist Rating       */
                   H09003   /* Health Plan Used            */ //*JSO 04/26/2007, added for
reservists logic*/
                   H09004  /* How Long in Health Plan  */
                           /***************************/
                   );
```

```
        FORMAT _ALL_;


        IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
           ELSE IF SERVAFF='F' THEN XSERVAFF=2;      *Air Force;
           ELSE IF SERVAFF='N' THEN XSERVAFF=3;      *Navy;
           ELSE XSERVAFF=4;                          *Other;

        IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

        IF XTNEXREG = . THEN DELETE;  /* RSG 02/2005 USE CACSMPL TO DELETE MISSING FIELDS*/

        IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

        NXNS_COV = XINS_COV;               /*JSO 04/26/2007 added for reservists logic*/
                                           /*JSO   07/30/2007,   added   DBENCAT,   NXNS_COV
conditions*/
        IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
        IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
           NXNS_COV = 3;
           XENR_PCM = .;
        END;
                        /* Note:  use tmp_cell in step2q.sas */
        LENGTH TMP_CELL XSERVREG 8;
        TMP_CELL = STRATUM; /*KRR 04/03/2006, changed from ADJ_CELL*/

        IF XTNEXREG = 1 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 1;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
           ELSE XSERVREG = 4;
        END;

        IF XTNEXREG = 2 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 5;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
           ELSE XSERVREG = 8;
        END;

        IF XTNEXREG = 3 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 9;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
           ELSE XSERVREG = 12;
        END;

        IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
           IF XOCONUS = 1 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 13;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 14;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 15;
              ELSE                      XSERVREG = 16;
           END;
           IF XOCONUS = 2 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 17;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 18;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 19;
              ELSE                      XSERVREG = 20;
           END;
           IF XOCONUS = 3 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 21;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 22;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 23;
              ELSE                      XSERVREG = 24;
           END;
        END;

    RENAME XCATCH=CACSMPL;
        WRWT=&WGT;

    RUN;

    *-------------------------------------------------;
```

```
              * create variable names for catchment area dummies ;
              *-------------------------------------------------;

              *  create a file of catchment areas (UNIQUE) using the sort to drop;
              *  all duplicate catchment areas leaving one record per;
              *  unique catctment area code;
              PROC SORT DATA=ENTIRE OUT=UNIQUE(KEEP=CACSMPL) NODUPKEY;
                 BY CACSMPL;
              RUN;

              *  create a file (FILEA) with catchment areas codes and a catchment;
              *  name consisting of "CAT" concatenated with a 4 digit number;
              *  created by ting of "CAT" concatenated with a 4 digit number;
              DATA FILEA (RENAME=(CACSMPL=START SERIAL=LABEL));
                 SET UNIQUE;
                 SERIAL+1;
                 LENGTH FMTNAME $7 DUMNAME $7;
                 FMTNAME='CACLOOK';
                 DUMNAME= 'CAT' || PUT(CACSMPL, Z4.);
              RUN;

              PROC PRINT DATA=FILEA;
                   TITLE2 '1 record per catchment area (use this file to create a format)';
              RUN;

              * create a format statement to be used to create CATINDX;
              PROC FORMAT CNTLIN=FILEA;  RUN;

              * create an include file for a complete set of catchment areas.
              * Write out to a file (CDUMFILE.INC) of the catchment dummy variables;
              DATA _NULL_;
                 SET FILEA END=EOF;
                 FILE 'CDUMFILE.INC';
                 IF _N_ = 1 THEN DO;
                    PUT @10  "ARRAY CATDUMS(*) 4";
                 END;
                 PUT    @15   DUMNAME $7.;

                 IF EOF  THEN  PUT @10 ";";
              RUN;



              ****************************************************************************
              * Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
              * subsets. Create the region dummies.  Recode region 7 to region 8.
              ****************************************************************************;
              DATA ENTIRE;
                 SET ENTIRE;
                 LENGTH DEFAULT = 4;
                 IF FIELDAGE NE "  " THEN DO;   /*MJS 01/26/04*/
                    AGE1824=0;
                    AGE2534=0;
                    AGE3544=0;
                    AGE4554=0;
                    AGE5564=0;
                    AGE6574=0;
                    AGE75UP=0;
                    IF      ( '018' <= FIELDAGE <= '024' ) THEN AGE1824=1;   /*MJS 01/26/04*/
                    ELSE IF ( '025' <= FIELDAGE <= '034' ) THEN AGE2534=1;
                    ELSE IF ( '035' <= FIELDAGE <= '044' ) THEN AGE3544=1;
                    ELSE IF ( '045' <= FIELDAGE <= '054' ) THEN AGE4554=1;
                    ELSE IF ( '055' <= FIELDAGE <= '064' ) THEN AGE5564=1;
                    ELSE IF ( '065' <= FIELDAGE <= '074' ) THEN AGE6574=1;
                    ELSE IF (          FIELDAGE  > '074' ) THEN AGE75UP=1;
                 END;

                 ************************************************************************
                 * Create the FEMALE dummy variable.
                 ********************************************************************;
                 IF XSEXA = 2 THEN
                    FEMALE = 1;
                 ELSE
                    FEMALE = 0;
```

```
          *****************************************************************************
          * Create the beneficiary group/enrollment group subsets.
          ****************************************************************************;
          GROUP1 = 0;
          GROUP2 = 0;
          GROUP3 = 0;
          GROUP4 = 0;
          GROUP5 = 0;
          GROUP6 = 0;
          GROUP7 = 0;
          GROUP8 = 1;      * EVERYONE;

          IF (NXNS_COV IN (1,2,6)  AND H09004>=2) THEN GROUP1 = 1;
          IF (XENR_PCM IN (1,2,6)  AND H09004>=2) THEN GROUP2 = 1;
          /* JSO 04/05/2007 conditions to run RC type */
          IF "&RCTYPE" = 'ReportCards' AND (XENR_PCM IN (3,7) AND H09004>=2) THEN GROUP3 = 1;
          ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND ((XENR_PCM IN (3,7) AND H09004>=2) OR
NXNS_COV IN (3,9)) THEN GROUP3 = 1;
          IF NXNS_COV IN   (3,9)      THEN GROUP4 = 1; /*JSO 08/24/2006, Deleted 4,5*//*JSO
07/30/2007, Added 9*/
          IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN GROUP5 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
          IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN GROUP6 = 1;
                                             /*JSO 07/30/2007, added DBENCAT conditions*/
          IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

          *****************************************************************************
          * Recode variables with Never, Sometimes, Usually and Always:
          *     Recode Never & Sometimes (1 & 2) to 1.
          *     Recode Usually (3) to 2.
          *     Recode Always (4) to 3.
          ****************************************************************************;

          IF H09007 = 1     THEN R09007 = 1;
          ELSE IF H09007 = 2 THEN R09007 = 1;
          ELSE IF H09007 = 3 THEN R09007 = 2;
          ELSE IF H09007 = 4 THEN R09007 = 3;
          ELSE IF H09007 < 0 THEN R09007 = .;

          IF H09010 = 1     THEN R09010 = 1;
          ELSE IF H09010 = 2 THEN R09010 = 1;
          ELSE IF H09010 = 3 THEN R09010 = 2;
          ELSE IF H09010 = 4 THEN R09010 = 3;
          ELSE IF H09010 < 0 THEN R09010 = .;

          IF H09021 = 1     THEN R09021 = 1;
          ELSE IF H09021 = 2 THEN R09021 = 1;
          ELSE IF H09021 = 3 THEN R09021 = 2;
          ELSE IF H09021 = 4 THEN R09021 = 3;
          ELSE IF H09021 < 0 THEN R09021 = .;

          IF H09022 = 1     THEN R09022 = 1;
          ELSE IF H09022 = 2 THEN R09022 = 1;
          ELSE IF H09022 = 3 THEN R09022 = 2;
          ELSE IF H09022 = 4 THEN R09022 = 3;
          ELSE IF H09022 < 0 THEN R09022 = .;

          IF H09023 = 1     THEN R09023 = 1;
          ELSE IF H09023 = 2 THEN R09023 = 1;
          ELSE IF H09023 = 3 THEN R09023 = 2;
          ELSE IF H09023 = 4 THEN R09023 = 3;
          ELSE IF H09023 < 0 THEN R09023 = .;

          IF H09024 = 1     THEN R09024 = 1;
          ELSE IF H09024 = 2 THEN R09024 = 1;
          ELSE IF H09024 = 3 THEN R09024 = 2;
          ELSE IF H09024 = 4 THEN R09024 = 3;
          ELSE IF H09024 < 0 THEN R09024 = .;

          IF H09029 = 1     THEN R09029 = 1;
          ELSE IF H09029 = 2 THEN R09029 = 1;
          ELSE IF H09029 = 3 THEN R09029 = 2;
          ELSE IF H09029 = 4 THEN R09029 = 3;
```

```
           ELSE IF H09029 < 0 THEN R09029 = .;

           IF H09033 = 1      THEN R09033 = 1;
           ELSE IF H09033 = 2 THEN R09033 = 1;
           ELSE IF H09033 = 3 THEN R09033 = 2;
           ELSE IF H09033 = 4 THEN R09033 = 3;
           ELSE IF H09033 < 0 THEN R09033 = .;

           IF H09040 = 1      THEN R09040 = 1;
           ELSE IF H09040 = 2 THEN R09040 = 1;
           ELSE IF H09040 = 3 THEN R09040 = 2;
           ELSE IF H09040 = 4 THEN R09040 = 3;
           ELSE IF H09040 < 0 THEN R09040 = .;

           IF H09041 = 1      THEN R09041 = 1;
           ELSE IF H09041 = 2 THEN R09041 = 1;
           ELSE IF H09041 = 3 THEN R09041 = 2;
           ELSE IF H09041 = 4 THEN R09041 = 3;
           ELSE IF H09041 < 0 THEN R09041 = .;

           IF H09045 = 1      THEN R09045 = 1;
           ELSE IF H09045 = 2 THEN R09045 = 1;
           ELSE IF H09045 = 3 THEN R09045 = 2;
           ELSE IF H09045 = 4 THEN R09045 = 3;
           ELSE IF H09045 < 0 THEN R09045 = .;

           IF H09046 = 1      THEN R09046 = 1;
           ELSE IF H09046 = 2 THEN R09046 = 1;
           ELSE IF H09046 = 3 THEN R09046 = 2;
           ELSE IF H09046 = 4 THEN R09046 = 3;
           ELSE IF H09046 < 0 THEN R09046 = .;

*************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
*************************************************************************;
R09027 = H09027;  IF R09027 < 0 THEN R09027 = .;
R09031 = H09031;  IF R09031 < 0 THEN R09031 = .;
R09018 = H09018;  IF R09018 < 0 THEN R09018 = .;
R09047 = H09047;  IF R09047 < 0 THEN R09047 = .;
R09063 = H09063;  IF R09063 < 0 THEN R09063 = .;

*************************************************************************
* Create region and service affiliation dummies.
*************************************************************************;
IF XSERVREG NE . THEN DO;  /*JSO 08/24/2006, Changed 16 to 24*/
   ARRAY REGDUMS (24) REG01 REG02 REG03 REG04 REG05 REG06
                      REG07 REG08 REG09 REG10 REG11 REG12
                      REG13 REG14 REG15 REG16 REG17 REG18
                      REG19 REG20 REG21 REG22 REG23 REG24;
   DO I = 1 TO 24;
      REGDUMS(I)=0;
   END;
   IF      XSERVREG= 1  THEN REG01  =1;
   ELSE IF XSERVREG= 2  THEN REG02  =1;
   ELSE IF XSERVREG= 3  THEN REG03  =1;
   ELSE IF XSERVREG= 4  THEN REG04  =1;
   ELSE IF XSERVREG= 5  THEN REG05  =1;
   ELSE IF XSERVREG= 6  THEN REG06  =1;
   ELSE IF XSERVREG= 7  THEN REG07  =1;
   ELSE IF XSERVREG= 8  THEN REG08  =1;
   ELSE IF XSERVREG= 9  THEN REG09  =1;
   ELSE IF XSERVREG= 10 THEN REG10  =1;
   ELSE IF XSERVREG= 11 THEN REG11  =1;
   ELSE IF XSERVREG= 12 THEN REG12  =1;
   ELSE IF XSERVREG= 13 THEN REG13  =1;
   ELSE IF XSERVREG= 14 THEN REG14  =1;
   ELSE IF XSERVREG= 15 THEN REG15  =1;
   ELSE IF XSERVREG= 16 THEN REG16  =1;
   ELSE IF XSERVREG= 17 THEN REG17  =1;
   ELSE IF XSERVREG= 18 THEN REG18  =1;
   ELSE IF XSERVREG= 19 THEN REG19  =1;
   ELSE IF XSERVREG= 20 THEN REG20  =1;
   ELSE IF XSERVREG= 21 THEN REG21  =1;
```

```
        ELSE IF  XSERVREG= 22 THEN REG22  =1;
        ELSE IF  XSERVREG= 23 THEN REG23  =1;
        ELSE IF  XSERVREG= 24 THEN REG24  =1;


        ARRAY SRVDUMS (4) SRV01 SRV02 SRV03 SRV04;
        DO I = 1 TO 4;    /*Needed for consumer watch ONLY */
           SRVDUMS(I)=0;
        END;
        IF        XSERVAFF = 1 THEN SRV01 = 1;
        ELSE IF  XSERVAFF = 2 THEN SRV02 = 1;
        ELSE IF  XSERVAFF = 3 THEN SRV03 = 1;
        ELSE IF  XSERVAFF = 4 THEN SRV04 = 1;

    END;
  *------------------------;
    * Create catchment dummies;
    *------------------------;
    %INCLUDE 'CDUMFILE.INC';   * this is array statement;
    CATINDX = INPUT(PUT(CACSMPL, CACLOOK.), 3.);
    DO I = 1 TO DIM(CATDUMS);
      CATDUMS(I) = 0;
    END;
    CATDUMS(CATINDX)=1;

RUN;

*****************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
*****************************************************************************;
%INCLUDE "CONVERT.SAS";

%CONT2(DSN=ENTIRE, NUM=4,  Y=R09018 R09047 R09027 R09031);
%CONT3(DSN=ENTIRE, NUM=12, Y=R09007 R09010 R09029 R09033
                            R09021 R09022 R09023 R09024
                            R09040 R09041 R09045 R09046);

*****************************************************************************
* Sort the main file to reorder it by MPRID.
*****************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

*****************************************************************************
* Print the contents of ENTIRE dataset.
*****************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


*****************************************************************************
* Print some of the recoded records.
*****************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       FIELDAGE   /*MJS 01/26/04*/
       XTNEXREG
       XSERVAFF
       XSERVREG
       USA
       ENBGSMPL
       XSEXA
       STRATUM   /*KRR 04/03/2006 Changed from ADJ_CELL*/
       XINS_COV
       NXNS_COV  /*JSO 04/26/2007, added for reservists logic*/
       DBENCAT   /*JSO 04/26/2007, added for reservists logic*/
       XENR_PCM
       &WGT.
       ;
RUN;


*****************************************************************************
* Print some of the recoded records.
*****************************************************************************;
```

```
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR FIELDAGE    /*MJS 01/26/04*/
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       AGE5564
       AGE6574
       AGE75UP

       XSEXA
       FEMALE

       ENBGSMPL
       XINS_COV
       NXNS_COV
       XENR_PCM
       XBNFGRP
       GROUP1
       GROUP2
       GROUP3
       GROUP4
       GROUP5
       GROUP6
       GROUP7
      ;
RUN;

PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded question variables';
   VAR H09007  R09007
       H09010  R09010
       H09021  R09021
       H09022  R09022
       H09023  R09023
       H09024  R09024
       H09029  R09029
       H09033  R09033
       H09040  R09040
       H09041  R09041
       H09045  R09045
       H09046  R09046
       H09018  R09018
       H09027  R09027
       H09031  R09031
       H09047  R09047
       H09063  R09063
      ;
RUN;


/*JSO 08/24/2006, Changed 16 to 24*/
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded REGION variables';
   VAR XSERVREG
       REG01
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
```

```
         REG19
         REG20
         REG21
         REG22
         REG23
         REG24;
RUN;


PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of recoded service affiliation variables';
   VAR XSERVREG
       XSERVAFF
       XOCONUS /*JSO 08/24/2006, Changed Overseas Regions*/
       SRV01
       SRV02
       SRV03
       SRV04
        ;
RUN;
proc freq data=entire;
table xservreg*cacsmpl/noprint out=temp;
proc sort; by cacsmpl count;
data out.xservind(keep=cacsmpl xservind);
set temp; by cacsmpl;
if last.cacsmpl;
if xservreg in (13,14,15,16) then xservreg=13;
if xservreg in (17,18,19,20) then xservreg=14;
if xservreg in (21,22,23,24) then xservreg=15;

rename xservreg=xservind;
proc sort data=entire;
by cacsmpl;
data entire;
merge entire out.xservind; by cacsmpl;

****************************************************************************
* Create the 7 subgroups for processing by STEP2.SAS.
****************************************************************************;
DATA OUT.GROUP1
     OUT.GROUP2
     OUT.GROUP3
     OUT.GROUP4
     OUT.GROUP5
     OUT.GROUP6
     OUT.GROUP7
     OUT.GROUP8;

     SET ENTIRE;

     DROP
        H09007
        H09010
        H09021
        H09022
        H09023
        H09024
        H09029
        H09033
        H09040
        H09041
        H09045
        H09046
        H09018
        H09027
        H09031
        H09047
        H09063
         ;
     IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
     IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
     IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
     IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
     IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
```

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```
        IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
        IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
        OUTPUT OUT.GROUP8;
    RUN;
```

```
********************************************************************************
*
* PROGRAM:  CONVERT.SAS
* TASK:     DOD HEALTH CARE SURVEY ANALYSIS (8687-330)
* PURPOSE:  CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES FOR CONSISTENCY
*           WITH THE TOPS SURVEY.
* WRITTEN:  October 2000 BY ERIC SCHONE
*
* MODIFIED: October 2000 BY KEITH RATHBUN, Added PROLOG.  Also, added DSN
*           to argument lists.
*
* INPUTS:  1) User-specified SAS Dataset
*
* OUTPUTS: 1) User-specified SAS Dataset with recoded values
*
* NOTES:
*
* 1) Arguments for the CONT1-CONT3 macros are as follows:
*    a) SAS dataset name (dsn)
*    b) Number of variables to be converted (num)
*    c) List of variables to be converted (y)
* 2) These macros assume that the response items have already been
*    converted/recoded to CAHPS scales.
*
********************************************************************************
* CONT1 - Convert big problem, small problem, not a problem questions to
*         proportional values.
*******************************************************************************;
%macro cont1(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i = 1 to &num;
      if vars(i) ne . and vars(i) ne 3 then vars(i) = 0;
      if vars(i) = 3 then vars(i) = 1;
   end;
run;
%mend cont1;

********************************************************************************
* CONT2 - Convert rating questions to proportional values.
*******************************************************************************;
%macro cont2(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) < 8 then vars(i) = 0;
      if vars(i) in (8,9,10) then vars(i) = 1;
   end;
run;
%mend cont2;

********************************************************************************
* CONT3 - Convert Never, Sometimes, Usually, Always questions to
*         proportional values.
*******************************************************************************;
%macro cont3(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) >= 2 then vars(i) = 2;
      vars(i) = vars(i) - 1;
   end;
run;
%mend cont3;
```

```
/*****************************************************************************************
/*  Project:  DoD - 2004 Adult Report Cards
/*  Program:  STEP2Q.SAS
/*  Purpose:  Draft Adult Report Card
/*  Requires program STEP1.SAS to have been run
/*  Programming specifications for adult report card
/*  The adult report card contains a large number of
/*  risk-adjusted scores.  Some scores are
/*  calculated from responses to individual survey questions.
/*  Composite scores are calculated by
/*  combining scores from individual questions.
/*  The scores then are compared with external civilian
/*  benchmarks.  The programming tasks involved in building
/*  the report card are:
/*       1)   preparing data for analyses
/*       2)   estimating risk adjustment models
/*       3)   calculating risk-adjusted values and variances
/*       4)   calculating benchmarks
/*       5)   comparing risk-adjusted values to benchmarks
/*            and hypothesis testing
/*
/*  Modified: 1) December 2001 By Mike Scott: Updated parameters for 2000 survey,
/*               added V612 to support SUDAAN with Version 8 SAS, changed STRATUM to
/*               TMP_CELL, and changed INTERCEP to INTERCEPT to support Version 8 SAS.
/*            2) January 2003 By Keith Rathbun: Added output files for SKELCAT and
/*               SKELREG (No longer permanent datasets... only needed by this program).
/*            3) January 2004 By Mike Scott: Updated for 2003 survey.
/*            4) February 2005 By Regina Gramss: Updated for 2004 survey
/*               changed codes to use XSERVREG for region.  Changed field
/*               names to use macro for year change.
/*               Adjustments were made By Eric Schone because of catchment
/*               areas lining up to multiple regions.
/*            5) January 2006 By Regina Gramss: Updated for 2005 survey.
/*            6) October 2006 By Keith Rathbun: Updated to accomodate the Overseas
/*               reporting updates done by Justin Oh in the quarterly version.
/*            7) November 9, 2007 By Keith Rathbun: Updated parameters for
/*               the 2007 survey.
/*            8) October 28, 2008 By Mike Rudacille: Updated parameters for
/*               the 2008 survey.
/*               9) October 6, 2009 by Emma Ernst: Updated paramters for 2009 survey
/*
/* SUBGROUPS
/* _____
/*    Seven subgroups          Definitions                     Reg or Catch   Macro
/* _____
/* 1. Prime enrollees          XINS_COV IN(1,2,6) AND H08007>=4  Catchment     SCORE1
/* 2. Enrollees w/mil PCM       XENR_PCM IN(1,2,6) AND H08007>=4  Catchment     SCORE1
/* 3. Enrollees w/civ PCM       XENR_PCM = 3       AND H08007>=4  Region        SCORE2
/* 4. Nonenrollees              XINS_COV IN(3)                    Region        SCORE2
/* 5. Active duty               XBNFGRP=1                         Catchment     SCORE1
/* 6. Active duty dependents    XBNFGRP=2                         Region        SCORE2
/* 7. Retirees and dependents   XBNFGRP IN (3,4)                  Region        SCORE2
/*
/*  PREV PGM:  STEP1.SAS
/*  NEXT PGM:  COMPOSIT.SAS
/*****************************************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE NOOVP STIMER COMPRESS=YES;
LIBNAME   IN1  "DATA";
LIBNAME   OUT  "DATA";
LIBNAME   OUT2 "DATA\ADULTHATFILES";


   *------------------------------------;
   *-      set the parameters here     -;
   *------------------------------------;
   * set the number of Dependent variables to process;
   * One does not need to start at 1, but the max must be >= min;
   %LET MIN_VAR =  1;
   %LET MAX_VAR =  23;


   * set the number of subgroups to process;
   %LET MIN_GRP = 1;
```

```
%LET MAX_GRP = 8;


****************************************************************************
* These are expected to remain the same for a particular dependent
* variable run.
****************************************************************************;
%LET WGT       = CFW_V3;
%LET IND_VAR1 = R09063;
%LET IND_VAR2 =   ;  * FEMALE;
%LET IND_VAR3 =   ;  * SREDHIGH;
%LET DEBUGFLG = 0;   * Set to 1 if you want extra printout;

%LET TITL1 = Prime Enrollees;
%LET TITL2 = Enrollees w/military PCM;
%LET TITL3 = Enrollees w/civilian PCM;
%LET TITL4 = Nonenrollees;
%LET TITL5 = Active Duty;
%LET TITL6 = Active Duty Dependents;
%LET TITL7 = Retirees and Dependents;
%LET TITL8 = All Beneficiaries;


****************************************************************************
* GETTING NEEDED CARE.
****************************************************************************;
%LET DEPVAR1 = R09011;
%LET DEPVAR2 = R09013;
%LET DEPVAR3 = R09027;
%LET DEPVAR4 = R09029;


****************************************************************************
* GETTING NEEDED CARE QUICKLY.
****************************************************************************;
%LET DEPVAR5 = R09017;
%LET DEPVAR6 = R09022;
%LET DEPVAR7 = R09019;
%LET DEPVAR8 = R09030;


****************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
****************************************************************************;
%LET DEPVAR9  = R09033;
%LET DEPVAR10 = R09034;
%LET DEPVAR11 = R09035;
%LET DEPVAR12 = R09036;


****************************************************************************
* COURTEOUS AND HELPFUL OFFICE STAFF.
****************************************************************************;
%LET DEPVAR13 = R09031;
%LET DEPVAR14 = R09032;


****************************************************************************
* CUSTOMER SERVICE.
****************************************************************************;
%LET DEPVAR15 = R09043;
%LET DEPVAR16 = R09045;
%LET DEPVAR17 = R09047;


****************************************************************************
* CLAIMS PROCESSING.
****************************************************************************;
%LET DEPVAR18 = R09040;
%LET DEPVAR19 = R09041;


****************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
****************************************************************************;
%LET DEPVAR20 = R09037;


****************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
****************************************************************************;
%LET DEPVAR21 = R09048;
```

```
****************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
****************************************************************************;
%LET DEPVAR22 = R09009;


****************************************************************************
* SPECIALITY CARE: 0 - 10.
****************************************************************************;
%LET DEPVAR23 = R09015;



proc freq data=in1.group8;    /*MJS 01/23/04 Changed data set*/
   tables cacsmpl /missing list out=skelcat(keep=cacsmpl);
run;
data skelcat;
   set skelcat;
   if cacsmpl = " " then delete;
run;

/*RSG 02/2005 - put in hard code for skelreg vs. doing freq on data
                since xservreg is not in data and must be coded*/

DATA SKELREG;
   INPUT XSERVREG;
   DATALINES;
      1
      2
      3
      4
      5
      6
      7
      8
      9
     10
     11
     12
     13
     14
     15
     16
     17
     18
     19
     20
     21
     22
     23
     24
;
RUN;


 %MACRO SCORE1;
 *********************************************;
 *     use this macro for groups 1, 2 & 5    *;
 *     catchment variables are to be used    *;
 *********************************************;
 %PUT *************************************;
 %PUT STARTING MACRO SCORE1;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP;
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT *************************************;

 *----------------------------------------------------;
 * If the current group is 1 use the skeleton files;
 * else used the previous groups output file;
 * The mrgfile is added to by each subgroup;
 *----------------------------------------------------;
```

```
 %LET CMRGFILE = OUT.C_&&DEPVAR&IVAR;
 %IF "&IGRP" = "1" %THEN %LET CMRGFILE = SKELCAT;


* run regression using the catchment level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model on catchment areas";
     TITLE3 "Beneficiary group&igrp: &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSCAT.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                        PRED&IGRP RESID&IGRP CACSMPL XSERVREG &&DEPVAR&IVAR)
             P = PRED&IGRP
             R = RESID&IGRP;
RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
        TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with PRED&IGRP and RESID&IGRP";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
        VAR MPRID XSERVREG CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
   RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


*--------------------------------;
*-- get the standard err/variance;
*--------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%C_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
DATA ADJUST;
     SET MEANFILE;     * CREATED IN THE MACRO  MAKE_DAT;
     IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = . THEN MEANS(I) = 0;
        ADJUST + ( COEFFS(I) * MEANS(I) );
     END;
     ADJUST = ADJUST + INTERCEPT;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=ADJUST;
        TITLE2 'Print of ADJUST';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* add the catchment coefficients to the adjusted value from above;
* output one record per catchment area with the catchment;
* level adjusted scores;
DATA COEFFCAC(KEEP=CATAREA NEWADJST);
   SET ADJUST;
   %INCLUDE 'CATARRAY.INC';
   LENGTH NAME $8;
   DO I=1 TO DIM(CATRHS);
```

```
        CALL VNAME(CATRHS(I),NAME);
        CATAREA=INPUT(SUBSTR(NAME,4,4),4.);
        IF CATRHS(I) = . THEN CATRHS(I) = 0;
        NEWADJST=ADJUST + CATRHS(I);
        OUTPUT;
      END;
  RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=COEFFCAC;
        TITLE2 'COEFFCAC: Catchment Area Adjusted Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


 * sum of wgts per catchment areas;
 * attach the region id to the output file so;
 * so we can create wgts for each region later;
 PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
   ID    XSERVind ;  * important ;
   CLASS CACSMPL ;
   VAR   &WGT;
   OUTPUT OUT=CAT_WGTS(RENAME=(CACSMPL=CATAREA)) N=CATCNT SUM=CATWGT;
 RUN;


* merge the Coeffcac file with the catchment;
* adjusted scores to the catchment level weight;
* merge by the catchment area. creates a;
* catchment level file with catchment weights;
 DATA COEFFCAC;
   MERGE COEFFCAC(IN=IN1)
        CAT_WGTS(IN=IN2 KEEP=CATAREA XSERVind CATWGT CATCNT);
   BY CATAREA;
   IF IN1;
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=CAT_WGTS(OBS=70);
        TITLE2 'CAT_WGTS: Catchment Area Sum of WGTS';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFCAC(OBS=70);
        TITLE2 'Catchment Area Adjusted Scores - with sum of wgts and region';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

%END;


* merge the previous groups catchment results (if any);
* with the catchment level std err and the catchment;
* level results from the current groups and dependent var;
%PUT "&CMRGFILE: " &CMRGFILE;
DATA OUT.C_&&DEPVAR&IVAR(RENAME=(NEWADJST=ADJ&IGRP));
    MERGE &CMRGFILE(IN=INS)
        C&IGRP&&DEPVAR&IVAR
        COEFFCAC(RENAME=(CATAREA=CACSMPL CATWGT=CATWGT&IGRP CATCNT=CATCNT&IGRP));
    BY CACSMPL;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.C_&&DEPVAR&IVAR;
    TITLE2 "Print of Catchment variables in C_&&DEPVAR&IVAR";
    TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;
```

```
%MEND SCORE1;




%MACRO SCORE2;
 *************************************;
 * use this macro for groups 3, 4, 6, 7;
 * region variables are to be used     ;
 *************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO SCORE2;
 %PUT "GROUP    = " GROUP&IGRP;
 %PUT "TITLE    = " &&DEPVAR&IVAR  &&TITL&IGRP";
 %PUT "DEP_VAR  = " &&DEPVAR&IVAR;
 %PUT "IND_VAR1 = " &IND_VAR1;
 %PUT "IND_VAR2 = " &IND_VAR2;
 %PUT "IND_VAR3 = " &IND_VAR3;
 %PUT "WGT      = " &WGT;
 %PUT ****************************************;

 %LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
 %IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
      TITLE2 "Regression Model for GROUP&igrp for regions";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
      WEIGHT &WGT;
      %INCLUDE 'REGRSREG.INC';
      OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                        PRED&IGRP RESID&IGRP CACSMPL XSERVREG &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;

* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
          TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
          TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
          VAR MPRID XSERVREG CACSMPL &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
          TITLE2 "BETAS:  file with coefficients";
          TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);


* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN COEFFS(I) = 0;
        IF MEANS(I) = .  THEN MEANS(I)  = 0;
        ADJUST + ( COEFFS(I) * MEANS(I) );
```

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```
      END;
      ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
 DATA COEFFREG(KEEP=XSERVREG NEWADJST);
     SET ADJUST;
     %INCLUDE 'REGARRAY.INC';
     LENGTH NAME $8;
     DO I=1 TO DIM(REGRHS);
        CALL VNAME(REGRHS(I),NAME);
        XSERVREG=INPUT(SUBSTR(NAME,4,2),2.);
        IF REGRHS(I) = . THEN REGRHS(I) = 0;
        NEWADJST=ADJUST + REGRHS(I);
        OUTPUT;
     END;
RUN;


* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XSERVREG;
  VAR    &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT SUM=REGWGT;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XSERVREG REGCNT REGWGT);
      BY XSERVREG;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
         TITLE2 'Print of MEANFILE';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
         TITLE2 'Print of ADJUST';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Region Adjusted Scores';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
         TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
         TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
/*PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT;
```

```
   CLASS  XSERVREG;
   VAR    NEWADJST;
   OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;
*/

%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* merge the previous groups regional results (if any);
* with the region level std err and the region;
* level results from the current group/dependent var;
%PUT "&RMRGFILE: " &RMRGFILE;
DATA OUT.R_&&DEPVAR&IVAR;
    MERGE &RMRGFILE(IN=INS)
          R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
          coeffreg(rename=(newadjst=adj&igrp));
    BY XSERVREG;
    RENAME REGCNT = REGCNT&IGRP;
    RENAME REGWGT = REGWGT&IGRP;
    DEPENDNT = "&&DEPVAR&IVAR";
    IF INS;
RUN;

PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
    TITLE2 "Print of REGION variables in &&DEPVAR&IVAR";
    TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
RUN;



 %MEND SCORE2;


 *
;
 %MACRO MAKE_INC;
 **************************************;
 * creates include files for later Procs;
 * Needs to be run each time.  Called   ;
 * in the outer (beneficiary loop).     ;
 * I chose this method because it was   ;
 * clearer(to me at least).             ;
 * This macro needs to be run once per  ;
 * Dep var per subgroup.                ;
 **************************************;

* Drop records where the dependent var is missing;
* Drop records with missing catchment or region values;



 DATA GROUP&IGRP;
      SET IN1.GROUP&IGRP;
      IF &&DEPVAR&IVAR NOT = .;

 RUN;

 DATA _NULL_;
      SET GROUP&IGRP END = EOF;
      IF &&DEPVAR&IVAR NOT = .;

      ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
      RETAIN AGECNT 0;
      RETAIN CNT 0;
      ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
      ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
      RETAIN AGENAM;
      RETAIN AGENAMX;
```

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```
      ARRAY CATCNT(9998) 8 CCNT0001 - CCNT9998;
      ARRAY REGCNT(24)   8 REGCNT01 - REGCNT24; *KRR 10/24/2006 - Changed from 16 to 24;
      RETAIN CATCNT 0;
      RETAIN REGCNT 0;


      * create a name array for the age dummies;
      IF _N_ = 1 THEN DO;
         AGENAM(1) = "AGE1824";
         AGENAM(2) = "AGE2534";
         AGENAM(3) = "AGE3544";
         AGENAM(4) = "AGE4554";
         AGENAM(5) = "AGE5564";
         AGENAM(6) = "AGE6574";
         AGENAM(7) = "AGE75UP";
      END;


      * total record count;
      CNT + 1;


      * count records in each age group;
      * we will use only age groups with more;
      * than 2 obs;
      IF AGE1824 = 1 THEN AGECNT(1) + 1;
      IF AGE2534 = 1 THEN AGECNT(2) + 1;
      IF AGE3544 = 1 THEN AGECNT(3) + 1;
      IF AGE4554 = 1 THEN AGECNT(4) + 1;
      IF AGE5564 = 1 THEN AGECNT(5) + 1;
      IF AGE6574 = 1 THEN AGECNT(6) + 1;
      IF AGE75UP = 1 THEN AGECNT(7) + 1;


      * count records in each catchment group;
      * we will only use catchment areas ;
      * with more than than 2 obs;
      * I am using the catchment area as the subscript;
      * to make the code simpler and more readable;
      IF CACSMPL >= 1 AND CACSMPL <= 9998 THEN DO;
         CATCNT(CACSMPL) = CATCNT(CACSMPL) + 1;
      END;


      * count records in each REGION group;
      * we will only use REGIONS ;
      * with more than than 2 obs;
      * I am using the region value as the subscript;
      * to make the code simpler and more readable;
      IF XSERVREG >= 1 AND XSERVREG <=24  THEN DO; *KRR 10/24/2006 - Changed from 16 to 24;
         REGCNT(XSERVREG) = REGCNT(XSERVREG) + 1;
      END;

      IF EOF THEN GOTO ENDFILE;
      RETURN;



  ENDFILE:
      * create a title common to all procs in the current group;
      TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

      * display counts in the log;
      %IF &DEBUGFLG > 0  %THEN %DO;
         PUT ' ';
         PUT 'AT EOF:';
         PUT "TOTAL CNT = "     CNT;
         PUT AGENAM(1) "  " AGECNT(1)=;
         PUT AGENAM(2) "  " AGECNT(2)=;
         PUT AGENAM(3) "  " AGECNT(3)=;
         PUT AGENAM(4) "  " AGECNT(4)=;
         PUT AGENAM(5) "  " AGECNT(5)=;
         PUT AGENAM(6) "  " AGECNT(6)=;
         PUT AGENAM(7) "  " AGECNT(7)=;
         PUT " ";

         DO I = 1 TO 24; *KRR 10/24/2006 - Changed from 16 to 24;
            IF(REGCNT(I) > 0) THEN DO;
               PUT  'REG' I Z2. REGCNT(I) 6.;
            END;
```

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```
         END;
      PUT ' ';

      DO I = 1 TO 9998;
         IF(CATCNT(I) > 0) THEN DO;
            PUT  'CAT' I Z4. CATCNT(I) 6.;
         END;
      END;
      PUT ' ';
%END;     *** of debug test;


   *----------------------------------------------------------;
   * create an include file for the regression model;
   * it is inconvient, but SAS requires that the;
   * include file start after a complete statement;
   * i.e. after a semicolon;
   * This include is for the regression using catchment areas;
   FILE 'REGRSCAT.INC';
   PUT @6  "MODEL &&DEPVAR&IVAR = ";
   IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
   IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
   IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

   CNT2 = 0;
   * setup an array of those age groups that have > 1 obs;
   DO I = 1 TO 7;
      IF AGECNT(I) > 1 THEN DO;
         CNT2 +1;
         AGENAMX(CNT2) = AGENAM(I);
      END;
   END;
   * drop the last category to create;
   * an omitted category which is required;
   * to solve the regression properly;
   DO I = 1 TO CNT2-1;
      PUT @12 AGENAMX(I);
   END;


   * ditto for the catchment areas with > 0 obs;
   * in this case we drop the last non-zero cnt;
   * this is not consistent with Portias code which;
   * unintentionally omitted several catchment area codes;
   LAST_REC = 0;
   DO I = 1 TO 9998;
      IF CATCNT(I) > 0 THEN LAST_REC = I;
   END;

   * skip the last cacsmpl with > 1 obs;
   DO I = 1 TO LAST_REC-1;
      IF CATCNT(I) > 0 THEN DO;
         PUT @12 'CAT' I Z4.;
      END;
   END;
   PUT @11 ';';


   *----------------------------------------------------------;
   * This include is for the regression using regions;
   * in this case we drop the last REGION;
   FILE 'REGRSREG.INC';
   PUT @6  "MODEL  &&DEPVAR&IVAR = ";
   IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
   IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
   IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

   CNT2 = 0;
   * setup an array of those age groups that have > 1 obs;
   DO I = 1 TO 7;
      IF AGECNT(I) > 1 THEN DO;
         CNT2 +1;
         AGENAMX(CNT2) = AGENAM(I);
      END;
```

```
     END;


     * now drop the last category to create;
     * an omitted category which is required;
     * to solve the regression properly;
     DO I = 1 TO CNT2-1;
        PUT @12 AGENAMX(I);
     END;


     * ditto for the catchment areas with > 0 obs;
     * in this case we drop the the first USABLE category;
     * this is not consistent with the catchment area code;
     * but this is the method that Portia used;
     FIRST = 0;          *KRR 10/24/2006 - Changed from 16 to 24;
     DO I = 1 TO 24;   * skip the 1st region with 1+ obs;
        IF REGCNT(I) > 0 THEN DO;
            IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
            FIRST = 1;
        END;
     END;
     PUT @11 ';';



     *----------------------------------------------------------;
     * now create the complete var statement;
     * for the Proc MEANS used to replace the;
     * independent variables missing values;
     * we assume the age groups will always be used;
     * These are also called the RISK FACTORS;
     FILE 'RISKVARS.INC';
     PUT @10  "VAR";
     DO I = 1 TO CNT2;
        PUT @12 AGENAMX(I);
     END;


     * not all the other dependent variables will be used;
     * only write them out if they are not null;
     CNT3 = 0;
     IF "&IND_VAR1" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR1";
     END;


     IF "&IND_VAR2" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR2";
     END;


     IF "&IND_VAR3" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR3";
     END;
     PUT @11 ';';



     *----------------------------------------------------------;
     * create an ARRAY statement of the desired risk factors;
     * called adjusters in the specs and in the code;
     FILE 'RISKARRY.INC';
     PUT @10  "ARRAY COEFFS(*) $8";
     DO I = 1 TO CNT2;
        PUT @12 AGENAMX(I);
     END;

     CNT3 = 0;
     IF "&IND_VAR1" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR1";
     END;


     IF "&IND_VAR2" NE "" THEN DO;
         CNT3 + 1;
         PUT @12 "&IND_VAR2";
     END;
```

```
       IF "&IND_VAR3" NE "" THEN DO;
          CNT3 + 1;
           PUT @12 "&IND_VAR3";
       END;
       PUT @11 ';';


       *----------------------------------------------------------;
       * create an ARRAY of mean names for the output;
       * from a proc MEANS of the Risk Factors in RISKARRY;
       FILE 'RISKMEAN.INC';
       IND_CNT = CNT2 + CNT3;
       PUT @6 "ARRAY MEANS(*) $8";
       DO I = 1 TO IND_CNT;
           PUT @12 "MEAN" I Z2.;
       END;
       PUT @11 ';';

   *   ---------------------------------------------------;
   *   create the equivalent of the following statement;
   *   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
       FILE 'MEANFILE.INC';
       PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
       DO I = 1 TO IND_CNT;
           PUT @12 "MEAN" I Z2.;
       END;
       PUT @11 ';';

       *----------------------------------------------------------;
       * create a catchment area array for all catchment areas;
       * with 1+ obs.
       * the missing value = 9999 was dropped in STEP1;  ** rlc 4/29/00;
       FILE 'CATARRAY.INC';
       PUT @10  "ARRAY CATRHS(*) $8";
       DO I = 1 TO 9998;            *** rlc 4/29/00 changed "9999" to "9998";
          IF CATCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
              PUT  @16 'CAT' I Z4.;
          END;
       END;
       PUT @11 ';';

       *----------------------------------------------------------;
       * create a region area array;
       * with at least ONE obs;
       FILE 'REGARRAY.INC';
       PUT @10  "ARRAY REGRHS(*) $8";
       DO I = 1 TO 24; *KRR 10/24/2006 - Changed from 16 to 24;
          IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
              PUT  @16 'REG' I Z2.;
          END;
       END;
       PUT @11 ';';
 file print;
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=group&igrp;

   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
    RUN;

DATA GROUP&IGRP;
    SET GROUP&IGRP;
    IF _N_ = 1 THEN SET MEANFILE;
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
```

```
            END;
         END;
   RUN;

   %IF &DEBUGFLG > 0   %THEN %DO;
      PROC PRINT DATA=MEANFILE;
            TITLE2 "Print of MEANFILE for Risk Adjuster variables";
            TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
      RUN;
   %END;




    %MEND MAKE_INC;



    *
;
    %MACRO R_SUDAAN(INFILE);
    ***************************************************;
    * use this macro to create standard err (variances);
    * FOR: REGIONS                                    ;
    ***************************************************;
    %PUT ***************************************;
    %PUT STARTING MACRO R_SUDAAN (REGIONS);
    %PUT ***************************************;



   DATA &INFILE;
      SET &INFILE;
      IF XSERVREG > 0;
   RUN;


   * Sort data by TMP_CELL;
   PROC SORT DATA=&INFILE;
      BY TMP_CELL;
   RUN;

   %IF &DEBUGFLG > 5   %THEN %DO;
      PROC PRINT DATA=&INFILE(OBS=5);
            TITLE2 'Print of the input file to SUDAAN (REGION)';
            TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
      RUN;
   %END;


   * Calculate values for regions;
   PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
      WEIGHT &WGT;
      SETENV DECWIDTH=4;
      NEST TMP_CELL / missunit;
      VAR RESID&IGRP;
      TABLES XSERVREG;
      SUBGROUP XSERVREG;
      LEVELS 24; *KRR 10/24/2006 - Changed from 16 to 24;
      OUTPUT  SEMEAN
            / TABLECELL=DEFAULT REPLACE
              FILENAME=RS&DEP;
      RUN;

      DATA R&IGRP&&DEPVAR&IVAR;
            SET RS&DEP;
            KEEP XSERVREG SEMEAN;
            IF SEMEAN NE .;
            RENAME SEMEAN = SEMEAN&IGRP;
      RUN;


      PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
         TITLE2 "Print REGION DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
```

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```
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  R_SUDAAN;


 %MACRO C_SUDAAN(INFILE);
 ***************************************************;
 * use this macro to create standard err (variances);
 * FOR: CATCHMENT AREAS                            ;
 ***************************************************;
 %PUT ****************************************;
 %PUT STARTING MACRO C_SUDAAN (CATCHMENT);
 %PUT ****************************************;

DATA &INFILE;
   SET &INFILE;
   IF CACSMPL > 0;
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN for CATCHMENT';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES CACSMPL;
   SUBGROUP CACSMPL;
   LEVELS 9998;
   OUTPUT  SEMEAN
         / TABLECELL=DEFAULT REPLACE
            FILENAME=CS&DEP;
   RUN;

   DATA C&IGRP&&DEPVAR&IVAR;
        SET CS&DEP;
        IF SEMEAN NE .;
        KEEP CACSMPL SEMEAN;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=C&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print CATCHMENT DESCRIPT DATA=C&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

 %MEND  C_SUDAAN;


 *
;
%*********************************;
%*  call the macros;
%*********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
           %DO IGRP = &MIN_GRP %TO &MAX_GRP;
```

```
            %MAKE_INC;
            %IF &IGRP = 1 OR &IGRP = 2 OR &IGRP = 5 or &igrp = 8 %THEN %do;
                %SCORE1;
                %SCORE2; %end;
            %ELSE
                %SCORE2;
        %END;
      %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

```
MODEL  R09015 =
       R09063
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG22
       REG23
       REG24
       ;
```

```
ARRAY COEFFS(*) $8
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
 ;
```

```
ARRAY MEANS(*) $8
       MEAN01
       MEAN02
       MEAN03
       MEAN04
       MEAN05
       MEAN06
     ;
```

```
ARRAY REGRHS(*) $8
        REG01
        REG02
        REG03
        REG04
        REG05
        REG06
        REG07
        REG08
        REG09
        REG10
        REG11
        REG12
        REG13
        REG14
        REG15
        REG16
        REG17
        REG18
        REG19
        REG20
        REG21
        REG22
        REG23
        REG24
    ;
```

```
VAR
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
;
```

```
OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN =
      MEAN01
      MEAN02
      MEAN03
      MEAN04
      MEAN05
      MEAN06
    ;
```

```
****************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified: 1) 02/27/2001 By Keith Rathbun, Small changes to input DSNs to
*              accommodate the move of ALLSCORE.SAS functionality into the
*              STEP2Q.SAS program.
*           2) 01/08/2002 By Daniele Beahm, Changed versions in libname statements
*              so program can be run with SAS v8 and still produce SAS v612 datasets.
*           3) 04/10/2002 By Mike Scott, Updated variable names for 2002
*              survey.
*           4) 02/04/2004 By Mike Scott, Updated for the 2003 Annual Report.
*           5) 02/2004 By Regina Gramss, Updated for 2004 Annual Report.  Added
*              in conditions to avoid exponential of negative numbers.  In case
*              of negative trend, error list is printed out - composit.lst file
*              should be evaluated (search for "ERROR") to make sure number of
*              obs is less than 30 for those with negative trend (field: tv).
*           6) 01/2006 By Regina Gramss, updated for 2005.
*           7) 10/2006 By Keith Rathbun, updated for 2006. Use FWRWT.
*           8) 10/6/09 by Emma Ernst, updated for 2009 database.  Use annual weights
****************************************************************************;
OPTIONS NOCENTER NOFMTERR LS=132 PS=78 SOURCE SOURCE2 NOOVP COMPRESS=YES;
libname in  "data";
libname in2 "data\adulthatfiles";
libname out "data";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XSERVREG');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

  ****************************************;
  *   Create a Composite Score          ;
  ****************************************;
  DATA _NULL_;
      FILE 'FILES.INC';
      PUT @6 'SET';
      IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
      IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
      IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
      IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
      PUT @8 ';';
  RUN;


  DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE 'FILES.INC';
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
  RUN;

  PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
  RUN;

  PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
  RUN;

  DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
```

```
       BY &BYVAR;
   %IF "&TYPE" = "R" %THEN %DO;
       ARRAY N(*)  REGCNT1 - REGCNT8;
       ARRAY W(*)  REGWGT1 - REGWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       ARRAY N(*)  CATCNT1 - CATCNT8;
       ARRAY W(*)  CATWGT1 - CATWGT8;
       ARRAY TN(*) TOTCNT1 - TOTCNT8;
       ARRAY TW(*) TOTWGT1 - TOTWGT8;
   %END;
       ARRAY ADJ(*)    ADJ1 - ADJ8;
       ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
       ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
       RETAIN TOTADJ TN TW;
       RETAIN AVGADJ;

       IF FIRST.&BYVAR THEN DO;
           DO I = 1 TO DIM(TOTADJ);
               TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
           END;
       END; DROP I;

       PUT ' ';
       PUT ' --- STARTING LOOP1: ' &BYVAR=;
       DO I = 1 TO DIM(TOTADJ);
           PUT I= ADJ(I)=;
           IF ADJ(I) NE . THEN DO;
               TOTADJ(I) = TOTADJ(I) + ADJ(I);
               TN(I)=TN(I)+N(I);
               TW(I)=TW(I)+W(I);
           END;
           PUT I= ADJ(I)= TOTADJ(I)=;
       END;


       PUT ' ';
       PUT ' --- STARTING LOOP2: ' &BYVAR=;
       IF LAST.&BYVAR THEN DO;
           DO I = 1 TO DIM(TOTADJ);
               PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
               AVGADJ(I) = TOTADJ(I)/&QCOUNT;
               adj(i)=avgadj(i);
               N(I)=TN(I)/&QCOUNT;
               W(I)=TW(I)/&QCOUNT;
           END;
           OUTPUT;
       END;

 RUN;

%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
 %if &type=R|(&i=1|&i=2|&i=5|&i=8) %then %do;
  %if &var1~= %then %do;
   %let n=r_&var1;
   %let m=s_&var1;

   data s_&var1(rename=(semean&i=s_&var1));
   set in.&type._&var1(keep=semean&i &byvar);
   proc sort; by &byvar;
   data r_&var1;

   set in2.h&i.&var1(rename=(resid&i=r_&var1));

   proc sort data=r_&var1; by mprid;
  %end;
  %if &var2~= %then %do;
   %let n=%str(&n r_&var2);
   %let m=%str(&m s_&var2);
   data s_&var2(rename=(semean&i=s_&var2));
   set in.&type._&var2(keep=semean&i &byvar);
```

```
      proc sort; by &byvar;
      data r_&var2;

      set in2.h&i.&var2(rename=(resid&i=r_&var2));

      proc sort data=r_&var2; by mprid;
     %end;
     %if &var3~= %then %do;
      %let n=%str(&n r_&var3);
      data s_&var3(rename=(semean&i=s_&var3));
      set in.&type._&var3(keep=semean&i &byvar);
      proc sort; by &byvar;
      data r_&var3;

      set in2.h&i.&var3(rename=(resid&i=r_&var3));

      proc sort data=r_&var3; by mprid;
      %let m=%str(&m s_&var3); %end;

     %if &var4~= %then %do;
      %let n=%str(&n r_&var4);
      data s_&var4(rename=(semean&i=s_&var4));
      set in.&type._&var4(keep=semean&i &byvar);
      proc sort; by &byvar;
      data r_&var4;

      set in2.h&i.&var4(rename=(resid&i=r_&var4));


      %let m=%str(&m s_&var4);
      proc sort data=r_&var4; by mprid;
     %end;
    /* Merge residual files and estimate correlations */
      data infile;
      merge &n; by mprid;
      proc sort; by &byvar;
      proc corr  outp=outf noprint;
      by &byvar;
      var &n;
      weight cfw_v3;
      data outf;
      set outf; by &byvar;
      where _type_='CORR';
    /*   sum standard error of a row variable times correlation times standard error of each
column variable, then sum sums and take square root, divide by number of variables */
      data final;
      merge &m outf; by &byvar;
      data final;
      set final; by &byvar;
      array r_val &n;
      array s_val &m;
      sde=0;
      do i=1 to dim(s_val);
       %do j=1 %to &qcount;
         if upcase(_name_)=upcase("R_&&var&j") then
         sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
       %end;
      end;
      run;

      data sefin&compos._&i errd;
      set final; by &byvar;
      if first.&byvar then tv=0;
      tv+sde;
      if last.&byvar then do;
    /**RSG 02/2005 Changed to only do exponential if tv value is non-negative -
      those with negative trend is set aside to print out and determine whether from
      nonmissing data of 30 or more*/
      if tv >= 0 then sde&i=(tv**.5)/&qcount;
      else if tv <= 0 then do;
       output errd;
       sde&i=.;
      end;
      output sefin&compos._&i;
```

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```
  end;
  run;
/**RSG 02/2005 Count how many nonmissing values are in the trend dataa
   to determine if negative trend is something to be concerned about*/
  proc means data=infile noprint;
  by &byvar;
  var &n;
  output out=missing (drop=_type_ _freq_) n=;
  data errd2;
  merge errd(in=a drop=&n) missing (in=b);
  by &byvar;
  if a;
  run;
  proc print data=errd2;
  var &byvar tv &n;
title "ERROR: NEGATIVE TREND FOR &N IN GROUP=&I. AND COMPOSE=&COMPOS";
  run;
title ' '; /*RSG 02/2005 blank out title for next loop*/

  %if &i=1 %then %do;
   data sefin&compos;
   set sefin&compos._1(keep=&byvar sde&i); by &byvar;
   rename sde&i=semean&i;
   run;
  %end;
  %else %do;
   data sefin&compos;
   merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
   rename sde&i=semean&i;
   run;
  %end;


 %end;
%end;

data out.&type.compos&compos;
merge compos&compos sefin&compos; by &byvar;
run;
PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
     TITLE1 COMPTITL;
 RUN;
%MEND COMPOSIT;

*------------------------------------;
*-        set the parameters here     -;
*------------------------------------;
***********************************;
*  call the macro for each composite;
***********************************;   /*MJS 02/04/04*/
%COMPOSIT (type=R,compos=1,var1=R09013,var2=R09027,qcount=2);
%COMPOSIT (type=R,compos=2,var1=R09022,var2=R09019,qcount=2);
%COMPOSIT (type=R,compos=3,var1=R09033,var2=R09034,var3=R09035,var4=R09036,qcount=4);
%COMPOSIT (type=R,compos=4,var1=R09031,var2=R09032,qcount=2);
%COMPOSIT (type=R,compos=5,var1=R09043,var2=R09045,var3=R09047,qcount=3);
%COMPOSIT (type=R,compos=6,var1=R09040,var2=R09041,qcount=2);

%COMPOSIT (type=C,compos=1,var1=R09013,var2=R09027,qcount=2);
%COMPOSIT (type=C,compos=2,var1=R09022,var2=R09019,qcount=2);
%COMPOSIT (type=C,compos=3,var1=R09033,var2=R09034,var3=R09035,var4=R09036,qcount=4);
%COMPOSIT (type=C,compos=4,var1=R09031,var2=R09032,qcount=2);
%COMPOSIT (type=C,compos=5,var1=R09043,var2=R09045,var3=R09047,qcount=3);
%COMPOSIT (type=C,compos=6,var1=R09040,var2=R09041,qcount=2);
```

```
SET
  IN.C_R09040
  IN.C_R09041
  ;
```

```
  *****************************************************************************
  *
  * PROGRAM:  LOADCAHP.SAS
  * TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
  * PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
  *
  * WRITTEN:  06/01/2000 BY KEITH RATHBUN
  *
  * MODIFIED: 1) 01/28/2002 BY KEITH RATHBUN, Updated to support the 2000 survey.
  *           2) 01/07/2003 BY KEITH RATHBUN, Updated to support the 2002 survey.
  *           3) 02/06/2004 BY MIKE SCOTT, Updated for the 2003 Annual Report.
  *           4) 02/2005    BY REGINA GRAMSS, Updated for 2004 Annual Report. Change
  *                         region variable to XSERVREG
  *           5) 11/01/2006 BY KEITH RATHBUN, Updated for 2006 Annual Report.
  *           6) 11/09/2007 BY KEITH RATHBUN, Updated for 2007 Annual Report.
  *           7) 10/29/2008 BY MIKE RUDACILLE, Updated for 2008 Annual Report.
  *           8) 10/6/09 by Emma Ernst, updated for 2009 annual report.
  *
  * INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
  *
  * OUTPUT:   1) LOADCAHP.sas7bdat - Combined CAHPS Scores Database in WEB layout
  *
  * INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
  *              and composite data sets
  *
  * NOTES:
  *
  * 1) The following steps need to be run prior to this program:
  *    - STEP1.SAS - Recode questions and generate group files
  *    - STEP2.SAS - Calculate individual adjusted scores for group 1-8
  *    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
  *
  * 2) The output file (LOADCAHP.sas7bdat) will be run through the
  *    MAKEHTML.SAS program to generate the WEB pages.
  *
  *****************************************************************************
  * Assign data libraries and options
  *****************************************************************************;
  LIBNAME IN   "..\REPORTCARDSV3\CAHPS_ADULT2009\DATA";
  LIBNAME OUT ".";
  LIBNAME LIBRARY "..\..\DATA\FMTLIB";

  OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER NOFMTERR;

  *****************************************************************************
  * Load Format definitions for CAHPS Individual and composite data sets.
  *****************************************************************************;
  %INCLUDE "LOADCAHQ.INC";

  *****************************************************************************
  *****************************************************************************
  *
  * Process Macro Input Parameters:
  *
  * 1) QUESTION = Variable Question Name (DSN).
  *    - For individual Questions it is the variable name
  *    - For composite Questions it is called xCOMPOSn
  *      where n = a predefined composite # and
  *            x = R (Region) or C (Catchment)
  * 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
  * 3) REGCAT = Region/Catchment Area
  *
  *****************************************************************************
  *****************************************************************************;
  %MACRO PROCESS(QUESTION=,TYPE=,REGCAT=);
  *****************************************************************************
  * Assign value for BENTYPE composite year
  *****************************************************************************;
  %LET YEAR = 2009;

  *****************************************************************************
```

```
 * Assign prefix for weighted/unweighted count variables.
 * Unweighted counts are REGCNTn or CATCNTn where n=group number.
 * Weighted counts are REGWGTn or CATWGTn where n=group number.
 ****************************************************************************;
%IF "&REGCAT" = "Region" %THEN %DO;
   %LET PREFIX = REG;
%END;
%ELSE %IF "&REGCAT" = "Catchment" %THEN %DO;
   %LET PREFIX = CAT;
%END;
%ELSE %DO;
   %PUT "ERROR: Invalid Type = &TYPE";
%END;


 ****************************************************************************
 *
 * Convert the CAHPS individual Scores Record into WEB layout.
 * There are 8 logical records (adjusted scores) per physical record:
 *
 * _____
 *    Adjusted Score           Definitions
 *    Group Number
 * _____
 * 1. Prime enrollees          XINS_COV IN (1,2,6) AND H08007>=2
 * 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H08007>=2
 * 3. Enrollees w/civ PCM      XENR_PCM = 3  AND H08007>=2
 * 4. Nonenrollees             XINS_COV IN (3)
 * 5. Active duty              BFGROUPP=1
 * 6. Active duty dependents   BFGROUPP=2
 * 7. Retirees and dependents  BFGROUPP IN (3,4)
 * 8. All beneficiaries        All beneficiaries
 *
 ****************************************************************************;
DATA &QUESTION;
   SET IN.&QUESTION;

   LENGTH MAJGRP  $30;
   LENGTH REGION  $25;  /*RSG 02/2005 Increased length to accommodate new region*/
   LENGTH REGCAT  $42;
   LENGTH BENTYPE $50;
   LENGTH BENEFIT $34;
   LENGTH TIMEPD  $5;  /*RSG 02/2005*/
   ********************************************************************;
   * Assign Region;
   ********************************************************************;
   %IF &REGCAT = Region %THEN %DO;
      REGION  = PUT(XSERVREG,SERVREGF.);
   %END;
   %ELSE %IF &REGCAT = Catchment %THEN %DO;
      REGION  = PUT(XSERVIND,SERVREGo.);
   %END;
   ********************************************************************;
   * Assign benefit and benefit type;
   ********************************************************************;
   IF "&TYPE" = "INDIVIDUAL" THEN DO;
      IF DEPENDNT IN("R09037","R09048","R09009","R09015") THEN
         BENTYPE = "Composite";
      ELSE
            BENTYPE = PUT(DEPENDNT,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = "&YEAR";
   END;
   ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
      BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = "&YEAR";
   END;
   ELSE PUT "ERROR: Invalid TYPE = &TYPE";
   ********************************************************************;
   * For now, Initialize Significance test to zero.;
   ********************************************************************;
   SIG = 0;
   ********************************************************************;
   * Assign Region/Catchment Area;
```

```
**********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   REGCAT = PUT(XSERVREG,SERVREGF.);
%END;
%ELSE %IF &REGCAT = Catchment %THEN %DO;
   REGCAT = PUT(CACSMPL,CACR.);
%END;
%ELSE %DO;
   PUT "ERROR: Invalid REGCAT = &REGCAT";
%END;
**********************************************************************;
* 1 = Prime Enrollees  ;
**********************************************************************;
MAJGRP = PUT(1,MAJGRPF.);
SCORE = ADJ1;
SEMEAN = SEMEAN1;
N_OBS = &PREFIX.CNT1;
N_WGT = &PREFIX.WGT1;
OUTPUT;
**********************************************************************;
* 2 = Enrollees with military PCM  ;
**********************************************************************;
MAJGRP = PUT(2,MAJGRPF.);
SCORE = ADJ2;
SEMEAN = SEMEAN2;
N_OBS = &PREFIX.CNT2;
N_WGT = &PREFIX.WGT2;
OUTPUT;
**********************************************************************;
* 3 = Enrollees with civilian PCM  ;
**********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(3,MAJGRPF.);
   SCORE = ADJ3;
   SEMEAN = SEMEAN3;
   N_OBS = &PREFIX.CNT3;
   N_WGT = &PREFIX.WGT3;
   OUTPUT;
%END;
**********************************************************************;
* 4 = Non-enrolled beneficiaries   ;
**********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(4,MAJGRPF.);
   SCORE = ADJ4;
   SEMEAN = SEMEAN4;
   N_OBS = &PREFIX.CNT4;
   N_WGT = &PREFIX.WGT4;
   OUTPUT;
%END;
**********************************************************************;
* 5 = Active duty;
**********************************************************************;
MAJGRP = PUT(5,MAJGRPF.);
SCORE = ADJ5;
SEMEAN = SEMEAN5;
N_OBS = &PREFIX.CNT5;
N_WGT = &PREFIX.WGT5;
OUTPUT;
**********************************************************************;
* 6 = Active duty dependents;
**********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;
%END;
**********************************************************************;
* 7 = Retirees and dependents;
**********************************************************************;
%IF &REGCAT = Region %THEN %DO;
```

```
        MAJGRP = PUT(7,MAJGRPF.);
        SCORE = ADJ7;
        SEMEAN = SEMEAN7;
        N_OBS = &PREFIX.CNT7;
        N_WGT = &PREFIX.WGT7;
        OUTPUT;
     %END;
     *********************************************************************;
     * 8 = All Beneficiaries ;
     *********************************************************************;
     MAJGRP = PUT(8,MAJGRPF.);
     SCORE  = ADJ8;
     SEMEAN = SEMEAN8;
     N_OBS = &PREFIX.CNT8;
     N_WGT = &PREFIX.WGT8;
     OUTPUT;

  KEEP MAJGRP
       REGION
       REGCAT
       BENTYPE
       BENEFIT
       TIMEPD
       SCORE
       SEMEAN
       N_OBS
       N_WGT
       SIG
     ;
  RUN;

  %MEND;

  ****************************************************************************
  * COMPOSITE # 1.
  * GETTING NEEDED CARE VARIABLES.
  ****************************************************************************;
  %PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE, REGCAT=Region);
  *%PROCESS(QUESTION=R_R09011,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09013,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09027,TYPE=INDIVIDUAL, REGCAT=Region);
  *%PROCESS(QUESTION=R_R09029,TYPE=INDIVIDUAL, REGCAT=Region);

  %PROCESS(QUESTION=CCOMPOS1,TYPE=COMPOSITE, REGCAT=Catchment);
  *%PROCESS(QUESTION=C_R09011,TYPE=INDIVIDUAL, REGCAT=Catchment);
  %PROCESS(QUESTION=C_R09013,TYPE=INDIVIDUAL, REGCAT=Catchment);
  %PROCESS(QUESTION=C_R09027,TYPE=INDIVIDUAL, REGCAT=Catchment);
  *%PROCESS(QUESTION=C_R09029,TYPE=INDIVIDUAL, REGCAT=Catchment);

  ****************************************************************************
  * COMPOSITE # 2.
  * GETTING CARE QUICKLY VARIABLES.
  ****************************************************************************;
  %PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE, REGCAT=Region);
  *%PROCESS(QUESTION=R_R09017,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09022,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09019,TYPE=INDIVIDUAL, REGCAT=Region);
  *%PROCESS(QUESTION=R_R09030,TYPE=INDIVIDUAL, REGCAT=Region);

  %PROCESS(QUESTION=CCOMPOS2,TYPE=COMPOSITE, REGCAT=Catchment);
  *%PROCESS(QUESTION=C_R09017,TYPE=INDIVIDUAL, REGCAT=Catchment);
  %PROCESS(QUESTION=C_R09022,TYPE=INDIVIDUAL, REGCAT=Catchment);
  %PROCESS(QUESTION=C_R09019,TYPE=INDIVIDUAL, REGCAT=Catchment);
  *%PROCESS(QUESTION=C_R09030,TYPE=INDIVIDUAL, REGCAT=Catchment);

  ****************************************************************************
  * COMPOSITE # 3.
  * HOW WELL DOCTORS COMMUNICATE.
  ****************************************************************************;
  %PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE, REGCAT=Region);
  %PROCESS(QUESTION=R_R09033,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09034,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09035,TYPE=INDIVIDUAL, REGCAT=Region);
  %PROCESS(QUESTION=R_R09036,TYPE=INDIVIDUAL, REGCAT=Region);
```

```
        %PROCESS(QUESTION=CCOMPOS3,TYPE=COMPOSITE, REGCAT=Catchment);
        %PROCESS(QUESTION=C_R09033,TYPE=INDIVIDUAL, REGCAT=Catchment);
        %PROCESS(QUESTION=C_R09034,TYPE=INDIVIDUAL, REGCAT=Catchment);
        %PROCESS(QUESTION=C_R09035,TYPE=INDIVIDUAL, REGCAT=Catchment);
        %PROCESS(QUESTION=C_R09036,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * COMPOSITE # 4.
        * COURTEOUS AND HELPFUL OFFICE STAFF.
        ***************************************************************************;
        *%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE, REGCAT=Region);
        *%PROCESS(QUESTION=R_R09031,TYPE=INDIVIDUAL, REGCAT=Region);
        *%PROCESS(QUESTION=R_R09032,TYPE=INDIVIDUAL, REGCAT=Region);

        *%PROCESS(QUESTION=CCOMPOS4,TYPE=COMPOSITE, REGCAT=Catchment);
        *%PROCESS(QUESTION=C_R09031,TYPE=INDIVIDUAL, REGCAT=Catchment);
        *%PROCESS(QUESTION=C_R09032,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * COMPOSITE # 5.
        * CUSTOMER SERVICE.
        ***************************************************************************;
        *%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE, REGCAT=Region );
        *%PROCESS(QUESTION=R_R09043,TYPE=INDIVIDUAL, REGCAT=Region);
        *%PROCESS(QUESTION=R_R09045,TYPE=INDIVIDUAL, REGCAT=Region);
        *%PROCESS(QUESTION=R_R09047,TYPE=INDIVIDUAL, REGCAT=Region);

        *%PROCESS(QUESTION=CCOMPOS5,TYPE=COMPOSITE, REGCAT=Catchment );
        *%PROCESS(QUESTION=C_R09043,TYPE=INDIVIDUAL, REGCAT=Catchment);
        *%PROCESS(QUESTION=C_R09045,TYPE=INDIVIDUAL, REGCAT=Catchment);
        *%PROCESS(QUESTION=C_R09047,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * COMPOSITE # 6.
        * CLAIMS PROCESSING.
        ***************************************************************************;
        %PROCESS(QUESTION=RCOMPOS6,TYPE=COMPOSITE, REGCAT=Region);
        %PROCESS(QUESTION=R_R09040,TYPE=INDIVIDUAL, REGCAT=Region);
        %PROCESS(QUESTION=R_R09041,TYPE=INDIVIDUAL, REGCAT=Region);

        %PROCESS(QUESTION=CCOMPOS6,TYPE=COMPOSITE, REGCAT=Catchment);
        %PROCESS(QUESTION=C_R09040,TYPE=INDIVIDUAL, REGCAT=Catchment);
        %PROCESS(QUESTION=C_R09041,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * INDIVIDUAL # 1.
        * RATING OF ALL HEALTH CARE: 0 - 10.
        ***************************************************************************;
        %PROCESS(QUESTION=R_R09037,TYPE=INDIVIDUAL, REGCAT=Region);
        %PROCESS(QUESTION=C_R09037,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * INDIVIDUAL # 2.
        * RATING OF HEALTH PLAN: 0 - 10.
        ***************************************************************************;
        %PROCESS(QUESTION=R_R09048,TYPE=INDIVIDUAL, REGCAT=Region);
        %PROCESS(QUESTION=C_R09048,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * INDIVIDUAL # 3.
        * RATING OF PERSONAL DOCTOR: 0 - 10.
        ***************************************************************************;
        %PROCESS(QUESTION=R_R09009,TYPE=INDIVIDUAL, REGCAT=Region);
        %PROCESS(QUESTION=C_R09009,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
        * INDIVIDUAL # 4.
        * SPECIALTY CARE: 0 - 10.
        ***************************************************************************;
        %PROCESS(QUESTION=R_R09015,TYPE=INDIVIDUAL, REGCAT=Region);
        %PROCESS(QUESTION=C_R09015,TYPE=INDIVIDUAL, REGCAT=Catchment);


        ***************************************************************************
```

```
***************************************************************************
* STACK up all of the files into one final output dataset.
***************************************************************************
***************************************************************************;
DATA OUT.LOADCAHP;
   SET /*R_R09011 C_R09011*/
       R_R09013   C_R09013
       R_R09027   C_R09027
       /*R_R09029 C_R09029
       R_R09017   C_R09017*/
       R_R09022   C_R09022
       R_R09019   C_R09019
       /*R_R09030 C_R09030*/
       R_R09033   C_R09033
       R_R09034   C_R09034
       R_R09035   C_R09035
       R_R09036   C_R09036
       /*R_R09031 C_R09031
       R_R09032   C_R09032
       R_R09043   C_R09043
       R_R09045   C_R09045
       R_R09047   C_R09047*/
       R_R09040   C_R09040
       R_R09041   C_R09041
       R_R09037   C_R09037
       R_R09048   C_R09048
       R_R09009   C_R09009
       R_R09015   C_R09015
       RCOMPOS1   CCOMPOS1
       RCOMPOS2   CCOMPOS2
       RCOMPOS3   CCOMPOS3
       /*RCOMPOS4 CCOMPOS4
       RCOMPOS5   CCOMPOS5*/
       RCOMPOS6   CCOMPOS6
      ;
     IF SCORE = . THEN DELETE;
   RUN;


TITLE1 "2009 DOD Health Survey Scores/Report Cards (6244-410)";
TITLE2 "Program Name: LOADCAHP.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHP.sas7bdat - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

```
  *****************************************************************************
  *
  * PROGRAM:  LOADCAHQ.INC
  * TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
  * PURPOSE:  Format definitions for converting the CAHPS Scores Database
  *           into the WEB layout.
  *
  * WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
  *
  * MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
  *              accommodate the short reports.
  *           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
  *              added catchment composites.
  *           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
  *           4) 04/03/2003 BY MIKE SCOTT, Added parameters for 2003 survey.
  *           5) 07/08/2003 BY MIKE SCOTT, Added formats GETNCARE, GETCAREQ,
  *              CRTSHELP, HOWWELL, CUSTSERV, CLMSPROC, and PREVCARE.
  *           6) 03/22/2004 BY KEITH RATHBUN, Added parameters for 2004 survey.
  *              Changed R04031 to be "Wait Less than 15 Minutes For Appointment".
  *           7) 05/06/2004 BY MIKE SCOTT, Changed R04031 back to 2003 version of
  *              the label ("Wait More than 15 Minutes Past Appointment") so that
  *              the Q1 2004 version of the question is consistent with past
  *              versions.  The label will be changed to the new version ("Waiting
  *              in the Doctor's Office") in Makehtmq.sas.
  *           8) 02/2006 BY REGINA GRAMSS, Changed date format to fielding dates.
  *           9) 03/21/2006 BY KEITH RATHBUN, Added parameters for 2006 survey.
  *          10) 08/22/2006 BY JUSTIN OH, Changed SERVREGF format for Overseas.
  *          11) 12/15/2006 BY JUSTIN OH, Added parameters for 2007 survey.
  *          12) 02/02/2007 BY JUSTIN OH, Added "s" in Healthy Behaviors in VALUE BEN.
  *          13) 01/10/2008 BY KEITH RATHBUN, Added parameters for 2008 survey.
  *          14) 01/09/2009 BY MIKE RUDACILLE, Added parameters for 2009 survey.
  *          14) 01/16/2009 BY MIKE RUDACILLE, Changed CONUS to USA.
  *
  * INPUTS:   No direct input
  *
  * OUTPUT:   No direct output
  *
  * NOTES:    1) Under the new contract (8860), the survey year was changed
  *              to be based on the year the survey is administered (2002)
  *              as opposed to the questioning reference frame (2001).  This
  *              include file contains variable names for both the 2001
  *              survey administration year and the the 2002 administration
  *              year surveys.
  *
  *****************************************************************************
  ;
  *****************************************************************************
  * FORMAT Definitions
  *****************************************************************************;
  PROC FORMAT;
     VALUE MAJGRPF
        1 = "Prime Enrollees           "
        2 = "Enrollees with Military PCM"
        3 = "Enrollees with Civilian PCM"
        4 = "Non-enrolled Beneficiaries "
        5 = "Active Duty                "
        6 = "Active Duty Dependents     "
        7 = "Retirees and Dependents    "
        8 = "All Beneficiaries          "
      ;
     VALUE XSERVAFF
        1 = "ARMY"
        2 = "AIR FORCE"
        3 = "NAVY"
        4 = "OTHER"
      ;
     VALUE REGIONF
        0 = "USA MHS "
        1 = "North"
        2 = "South"
```

```
        3 = "West"
        4 = "Overseas"
    ;

/*JSO 08/24/2006, Changed Overseas to Service for Europe,Pacific,Latin*/
    VALUE SERVREGF
        1 = "North Army"
        2 = "North Air Force"
        3 = "North Navy"
        4 = "North Other"
        5 = "South Army"
        6 = "South Air Force"
        7 = "South Navy"
        8 = "South Other"
        9 = "West Army"
       10 = "West Air Force"
       11 = "West Navy"
       12 = "West Other"
       13 = "Europe Army"
       14 = "Europe Air Force"
       15 = "Europe Navy"
       16 = "Europe Other"
       17 = "Pacific Army"
       18 = "Pacific Air Force"
       19 = "Pacific Navy"
       20 = "Pacific Other"
       21 = "Latin America Army"
       22 = "Latin America Air Force"
       23 = "Latin America Navy"
       24 = "Latin America Other"
       25 = "USA ARMY"
       26 = "USA AIR FORCE"
       27 = "USA NAVY"
       28 = "USA OTHER";

/*JSO 08/24/2006, Changed Overseas to Europe,Pacific,Latin*/
    VALUE SERVREGO
        1 = "North Army"
        2 = "North Air Force"
        3 = "North Navy"
        4 = "North Other"
        5 = "South Army"
        6 = "South Air Force"
        7 = "South Navy"
        8 = "South Other"
        9 = "West Army"
       10 = "West Air Force"
       11 = "West Navy"
       12 = "West Other"
       13 = "Overseas Europe"
       14 = "Overseas Pacific"
       15 = "Overseas Latin America";

    VALUE $BENTYPF
     "1998    " = "1998                                      "
     "1999    " = "1999                                      "
     "2000    " = "2000                                      "
     "2001    " = "2001                                      "
     "2002    " = "2002                                      "
     "2003    " = "2003                                      "
     "2004    " = "2004                                      "
     "2005    " = "2005                                      "
     "2006    " = "2006                                      "
     "2007    " = "2007                                      "
     "2008    " = "2008                                      "
     "2000 Q1 " = "January, 2000 to December, 2000           "
     "2000 Q2 " = "April, 2000 to March, 2001                "
     "2000 Q3 " = "July, 2000 to June, 2001                  "
     "2000 Q4 " = "October, 2000 to September, 2001          "
     "2002 Q1 " = "January, 2001 to December, 2001           "
     "2002 Q2 " = "April, 2001 to March, 2002                "
     "2002 Q3 " = "July, 2001 to June, 2002                  "
     "2002 Q4 " = "October, 2001 to September, 2002          "
     "2003 Q1 " = "January, 2002 to December, 2002           "
```

```
         "2003 Q2 " = "April, 2002 to March, 2003                    "
         "2003 Q3 " = "July, 2002 to June, 2003                      "
         "2003 Q4 " = "October, 2002 to September, 2003              "
         "2004 Q1 " = "January, 2003 to December, 2003               "
         "2004 Q2 " = "April, 2003 to March, 2004                    "
         "2004 Q3 " = "Quarter 3, CY 2004                            "
         "2004 Q4 " = "Quarter 4, CY 2004                            "
         "2005 Q1 " = "January, 2005                                 "
         "2005 Q2 " = "April, 2005                                   "
         "2005 Q3 " = "July, 2005                                    "
         "2005 Q4 " = "October, 2005                                 "
         "2006 Q1 " = "January, 2006                                 "
         "2006 Q2 " = "April, 2006                                   "
         "2006 Q3 " = "July, 2006                                    "
         "2006 Q4 " = "October, 2006                                 "
         "2007 Q1 " = "January, 2007                                 "
         "2007 Q2 " = "April, 2007                                   "
         "2007 Q3 " = "July, 2007                                    "
         "2007 Q4 " = "October, 2007                                 "
         "2008 Q1 " = "January, 2008                                 "
         "2008 Q2 " = "April, 2008                                   "
         "2008 Q3 " = "July, 2008                                    "
         "2008 Q4 " = "October, 2008                                 "
         "2009 Q1 " = "January, 2009                                 "
         "2009 Q2 " = "April, 2009                                   "
         "2009 Q3 " = "July, 2009                                    "
         "2009 Q4 " = "October, 2009                                 "

/*********************************************************************************************
/
        /*                        Admin.                    Year                      Defn.
*/
        /* 2001        2002        2003        2004      2005      2006      2007      2008
2009    */

/*********************************************************************************************
/
        "R00007   ", "R02009   ", "R03009   ", "R04011", "R05011", "R06011", "R07011", "R08011",
"R09011" = "Problems Getting Personal Doctor/Nurse        "
        "R00014   ", "R02016   ", "R03013   ", "R04013", "R05013", "R06013", "R07013", "R08013",
"R09013" = "Getting to See a Specialist                   "
        "R00028   ", "R02030   ", "R03027   ", "R04028", "R05027", "R06027", "R07027", "R08027",
"R09027" = "Getting Treatment                             "
        "R00029   ", "R02031   ", "R03028   ", "R04030", "R05029", "R06029", "R07029", "R08029",
"R09029" = "Delays in Care while Awaiting Approval         "
        "R00019   ", "R02021   ", "R03018   ", "R04018", "R05017", "R06017", "R07017", "R08017",
"R09017" = "Advice over Telephone                         "
        "R00021   ", "R02023   ", "R03020   ", "R04023", "R05022", "R06022", "R07022", "R08022",
"R09022" = "Wait for Routine Visit                        "
        "R00024   ", "R02026   ", "R03023   ", "R04020", "R05019", "R06019", "R07019", "R08019",
"R09019" = "Wait for Urgent Care                          "
        "R00030   ", "R02032   ", "R03029   ", "R04031", "R05030", "R06030", "R07030", "R08030",
"R09030" = "Wait More than 15 Minutes Past Appointment    "
        "R00033   ", "R02035   ", "R03032   ", "R04034", "R05033", "R06033", "R07033", "R08033",
"R09033" = "Listens Carefully                             "
        "R00034   ", "R02036   ", "R03033   ", "R04035", "R05034", "R06034", "R07034", "R08034",
"R09034" = "Explains so You Can Understand                 "
        "R00035   ", "R02037   ", "R03034   ", "R04036", "R05035", "R06035", "R07035", "R08035",
"R09035" = "Shows Respect                                 "
        "R00036   ", "R02038   ", "R03035   ", "R04037", "R05036", "R06036", "R07036", "R08036",
"R09036" = "Spends Time with You                          "
        "R00031   ", "R02033   ", "R03030   ", "R04032", "R05031", "R06031", "R07031", "R08031",
"R09031" = "Courteous and Respectful                      "
        "R00032   ", "R02034   ", "R03031   ", "R04033", "R05032", "R06032", "R07032", "R08032",
"R09032" = "Helpful                                       "
        "R00048   ", "R02048   ", "R03044   ", "R04045", "R05043", "R06043", "R07043", "R08043",
"R09043" = "Problem Finding/Understanding Written Material"
        "R00050   ", "R02050   ", "R03046   ", "R04047", "R05045", "R06045", "R07045", "R08045",
"R09045" = "Problem Getting Help from Customer Service    "
        "R00055   ", "R02055   ", "R03051   ", "R04053", "R05047", "R06047", "R07047", "R08047",
"R09047" = "Problem with Paperwork                        "
        "R00044   ", "R02044   ", "R03040   ", "R04041", "R05040", "R06040", "R07040", "R08040",
"R09040" = "Claims Handled in a Reasonable Time           "
```

```
        "R00045  ", "R02045  ", "R03041  ", "R04042", "R05041", "R06041", "R07041", "R08041",
"R09041" = "Claims Handled Correctly                    "
        "R00037  ", "R02039  ", "R03036  ", "R04038", "R05037", "R06037", "R07037", "R08037",
"R09037" = "Health Care                             "
        "R00056  ", "R02056  ", "R03052  ", "R04054", "R05048", "R06048", "R07048", "R08048",
"R09048" = "Health Plan                             "
        "R00009  ", "R02011  ", "R03011  ", "R04009", "R05009", "R06009", "R07009", "R08009",
"R09009" = "Primary Care Manager                    "
        "R00016  ", "R02018  ", "R03015  ", "R04015", "R05015", "R06015", "R07015", "R08015",
"R09015" = "Specialty Care                          "
                                "PHYSIC  " = "Physical                                "
                                "MENTAL  " = "Mental                                  "
        ;
      VALUE $BENEF
       "RCOMPOS1","CCOMPOS1","R00007","R00014","R00028","R00029",
                           "R02009","R02016","R02030","R02031",
                           "R03009","R03013","R03027","R03028",
                           "R04011","R04013","R04028","R04030",
                           "R05011","R05013","R05027","R05029",
                           "R06011","R06013","R06027","R06029",
                           "R07011","R07013","R07027","R07029",
                           "R08011","R08013","R08027","R08029",
                           "R09011","R09013","R09027","R09029"
         = "Getting Needed Care  "

       "RCOMPOS2","CCOMPOS2","R00019","R00021","R00024","R00030",
                           "R02021","R02023","R02026","R02032",
                           "R03018","R03020","R03023","R03029",
                           "R04018","R04023","R04020","R04031",
                           "R05017","R05022","R05019","R05030",
                           "R06017","R06022","R06019","R06030",
                           "R07017","R07022","R07019","R07030",
                           "R08017","R08022","R08019","R08030",
                           "R09017","R09022","R09019","R09030"
         = "Getting Care Quickly "

       "RCOMPOS3","CCOMPOS3","R00033","R00034","R00035","R00036",
                           "R02035","R02036","R02037","R02038",
                           "R03032","R03033","R03034","R03035",
                           "R04034","R04035","R04036","R04037",
                           "R05033","R05034","R05035","R05036",
                           "R06033","R06034","R06035","R06036",
                           "R07033","R07034","R07035","R07036",
                           "R08033","R08034","R08035","R08036",
                           "R09033","R09034","R09035","R09036"
         = "How Well Doctors Communicate "

       "RCOMPOS4","CCOMPOS4","R00031","R00032",
                           "R02033","R02034",
                           "R03030","R03031",
                           "R04032","R04033",
                           "R05031","R05032",
                           "R06031","R06032",
                           "R07031","R07032",
                           "R08031","R08032",
                           "R09031","R09032"
         = "Courteous and Helpful Office Staff "

       "RCOMPOS5","CCOMPOS5","R00048","R00050","R00055",
                           "R02048","R02050","R02055",
                           "R03044","R03046","R03051",
                           "R04045","R04047","R04053",
                           "R05043","R05045","R05047",
                           "R06043","R06045","R06047",
                           "R07043","R07045","R07047",
                           "R08043","R08045","R08047",
                           "R09043","R09045","R09047"
         = "Customer Service         "

       "RCOMPOS6","CCOMPOS6","R00044","R00045",
                           "R02044","R02045",
                           "R03040","R03041",
                           "R04041","R04042",
                           "R05040","R05041",
```

```
                              "R06040","R06041",
                              "R07040","R07041",
                              "R08040","R08041",
                              "R09040","R09041"
        = "Claims Processing
                  "
        "RCOMPOS11","COMPOS11","MENTAL","PHYS"
        = "Health Status                     "

/*****************************************************************************************/
        /*                          Admin.                    Year                    Defn.
*/
        /* 2001      2002      2003      2004      2005      2006      2007      2008      2009
*/

/*****************************************************************************************/
        "R00037",  "R02039",  "R03036",  "R04038",  "R05037",  "R06037",  "R07037",  "R08037",
"R09037" = "Health Care                          "
        "R00056",  "R02056",  "R03052",  "R04054",  "R05048",  "R06048",  "R07048",  "R08048",
"R09048" = "Health Plan                          "
        "R00009",  "R02011",  "R03011",  "R04009",  "R05009",  "R06009",  "R07009",  "R08009",
"R09009" = "Primary Care Manager                 "
        "R00016",  "R02018",  "R03015",  "R04015",  "R05015",  "R06015",  "R07015",  "R08015",
"R09015" = "Specialty Care                       "
          ;
      VALUE BEN
      /*  0 = 'Total'  deleted no longer calculating total 04/2005 RSG ***/
        1 = 'Getting Needed Care'
        2 = 'Getting Care Quickly'
        3 = 'Courteous and Helpful Office Staff'
        4 = 'How Well Doctors Communicate'
        5 = 'Customer Service'
        6 = 'Claims Processing'
        7 = 'Health Plan'
        8 = 'Health Care'
        9 = 'Primary Care Manager'
       10 = 'Specialty Care'
       11 = 'Preventive Care'
       12 = 'Healthy Behaviors';

       VALUE MAJOR
       1 = "Prime Enrollees           "
       2 = "Enrollees with Military PCM"
       3 = "Enrollees with Civilian PCM"
       4 = "Non-enrolled Beneficiaries "
       5 = "Active Duty               "
       6 = "Active Duty Dependents    "
       7 = "Retirees and Dependents   "
       8 = "All Beneficiaries         ";

       VALUE GETNCARE
       1 = "Getting to See a Specialist"
       2 = "Getting Treatment"
       3 = "Composite";

       VALUE GETCAREQ
       1 = "Wait for Routine Visit"
       2 = "Wait for Urgent Care"
       3 = "Composite";

       VALUE CRTSHELP
       1 = "Courteous and Respectful"
       2 = "Helpful"
       3 = "Composite";

       VALUE HOWWELL
       1 = "Listens Carefully"
       2 = "Explains so You Can Understand"
       3 = "Shows Respect"
       4 = "Spends Time with You"
       5 = "Composite";

       VALUE CUSTSERV
       1 = "Problem Finding/Understanding Written Material"
```

```
      2 = "Problem Getting Help from Customer Service"
      3 = "Problem with Paperwork"
      4 = "Composite";

      VALUE CLMSPROC
      1 = "Claims Handled in a Reasonable Time"
      2 = "Claims Handled Correctly"
      3 = "Composite";

      VALUE PREVCARE
      1 = "Mammography"
      2 = "Pap Smear"
      3 = "Hypertension"
      4 = "Prenatal Care"
      5 = "Composite";

      VALUE SMOKEF
      1 = "Non-Smoking Rate"
      2 = "Counselled To Quit"
      3 = "Percent Not Obese"
      4 = "Composite";
  RUN;
```

```
*****************************************************************************
*
* PROGRAM:  LOADCAHP.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/28/2002 BY KEITH RATHBUN, Updated to support the 2000 survey.
*           2) 01/07/2003 BY KEITH RATHBUN, Updated to support the 2002 survey.
*           3) 02/06/2004 BY MIKE SCOTT, Updated for the 2003 Annual Report.
*           4) 02/2005   BY REGINA GRAMSS, Updated for 2004 Annual Report. Change
*                         region variable to XSERVREG
*           5) 11/01/2006 BY KEITH RATHBUN, Updated for 2006 Annual Report.
*           6) 11/09/2007 BY KEITH RATHBUN, Updated for 2007 Annual Report.
*           7) 10/29/2008 BY MIKE RUDACILLE, Updated for 2008 Annual Report.
*           8) 10/6/09 by Emma Ernst, updated for 2009 annual report.
*
* INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
*
* OUTPUT:   1) LOADCAHP.sas7bdat - Combined CAHPS Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1.SAS - Recode questions and generate group files
*    - STEP2.SAS - Calculate individual adjusted scores for group 1-8
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*
* 2) The output file (LOADCAHP.sas7bdat) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;
LIBNAME IN   "..\REPORTCARDSV4\CAHPS_ADULT2009\DATA";
LIBNAME OUT ".";
LIBNAME LIBRARY "..\..\DATA\FMTLIB";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER NOFMTERR;

*****************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*****************************************************************************;
%INCLUDE "LOADCAHQ.INC";

*****************************************************************************
*****************************************************************************
*
* Process Macro Input Parameters:
*
* 1) QUESTION = Variable Question Name (DSN).
*    - For individual Questions it is the variable name
*    - For composite Questions it is called xCOMPOSn
*      where n = a predefined composite # and
*            x = R (Region) or C (Catchment)
* 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
* 3) REGCAT = Region/Catchment Area
*
*****************************************************************************
*****************************************************************************;
%MACRO PROCESS(QUESTION=,TYPE=,REGCAT=);
*****************************************************************************
* Assign value for BENTYPE composite year
*****************************************************************************;
%LET YEAR = 2009;

*****************************************************************************
```

```
* Assign prefix for weighted/unweighted count variables.
* Unweighted counts are REGCNTn or CATCNTn where n=group number.
* Weighted counts are REGWGTn or CATWGTn where n=group number.
*****************************************************************************;
%IF "&REGCAT" = "Region" %THEN %DO;
   %LET PREFIX = REG;
%END;
%ELSE %IF "&REGCAT" = "Catchment" %THEN %DO;
   %LET PREFIX = CAT;
%END;
%ELSE %DO;
   %PUT "ERROR: Invalid Type = &TYPE";
%END;


*****************************************************************************
*
* Convert the CAHPS individual Scores Record into WEB layout.
* There are 8 logical records (adjusted scores) per physical record:
*
* _____
*    Adjusted Score          Definitions
*    Group Number
* _____
* 1. Prime enrollees         XINS_COV IN (1,2,6) AND H08007>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H08007>=2
* 3. Enrollees w/civ PCM      XENR_PCM = 3  AND H08007>=2
* 4. Nonenrollees            XINS_COV IN (3)
* 5. Active duty             BFGROUPP=1
* 6. Active duty dependents   BFGROUPP=2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All beneficiaries        All beneficiaries
*
*****************************************************************************;
DATA &QUESTION;
   SET IN.&QUESTION;

   LENGTH MAJGRP  $30;
   LENGTH REGION  $25;  /*RSG 02/2005 Increased length to accommodate new region*/
   LENGTH REGCAT  $42;
   LENGTH BENTYPE $50;
   LENGTH BENEFIT $34;
   LENGTH TIMEPD  $5;  /*RSG 02/2005*/
   *********************************************************************;
   * Assign Region;
   *********************************************************************;
   %IF &REGCAT = Region %THEN %DO;
      REGION  = PUT(XSERVREG,SERVREGF.);
   %END;
   %ELSE %IF &REGCAT = Catchment %THEN %DO;
      REGION  = PUT(XSERVIND,SERVREGo.);
   %END;
   *********************************************************************;
   * Assign benefit and benefit type;
   *********************************************************************;
   IF "&TYPE" = "INDIVIDUAL" THEN DO;
      IF DEPENDNT IN("R09018", "R09047", "R09027", "R09031") THEN
         BENTYPE = "Composite";
      ELSE
            BENTYPE = PUT(DEPENDNT,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = "&YEAR";
   END;
   ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
      BENTYPE = "Composite";    ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      BENEFIT = PUT(DEPENDNT,$BENEF.);
      TIMEPD = "&YEAR";
   END;
   ELSE PUT "ERROR: Invalid TYPE = &TYPE";
   *********************************************************************;
   * For now, Initialize Significance test to zero.;
   *********************************************************************;
   SIG = 0;
   *********************************************************************;
   * Assign Region/Catchment Area;
```

```
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   REGCAT = PUT(XSERVREG,SERVREGF.);
%END;
%ELSE %IF &REGCAT = Catchment %THEN %DO;
   REGCAT = PUT(CACSMPL,CACR.);
%END;
%ELSE %DO;
   PUT "ERROR: Invalid REGCAT = &REGCAT";
%END;
*********************************************************************;
* 1 = Prime Enrollees  ;
*********************************************************************;
MAJGRP = PUT(1,MAJGRPF.);
SCORE = ADJ1;
SEMEAN = SEMEAN1;
N_OBS = &PREFIX.CNT1;
N_WGT = &PREFIX.WGT1;
OUTPUT;
*********************************************************************;
* 2 = Enrollees with military PCM  ;
*********************************************************************;
MAJGRP = PUT(2,MAJGRPF.);
SCORE = ADJ2;
SEMEAN = SEMEAN2;
N_OBS = &PREFIX.CNT2;
N_WGT = &PREFIX.WGT2;
OUTPUT;
*********************************************************************;
* 3 = Enrollees with civilian PCM  ;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(3,MAJGRPF.);
   SCORE = ADJ3;
   SEMEAN = SEMEAN3;
   N_OBS = &PREFIX.CNT3;
   N_WGT = &PREFIX.WGT3;
   OUTPUT;
%END;
*********************************************************************;
* 4 = Non-enrolled beneficiaries   ;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(4,MAJGRPF.);
   SCORE = ADJ4;
   SEMEAN = SEMEAN4;
   N_OBS = &PREFIX.CNT4;
   N_WGT = &PREFIX.WGT4;
   OUTPUT;
%END;
*********************************************************************;
* 5 = Active duty;
*********************************************************************;
MAJGRP = PUT(5,MAJGRPF.);
SCORE = ADJ5;
SEMEAN = SEMEAN5;
N_OBS = &PREFIX.CNT5;
N_WGT = &PREFIX.WGT5;
OUTPUT;
*********************************************************************;
* 6 = Active duty dependents;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;
%END;
*********************************************************************;
* 7 = Retirees and dependents;
*********************************************************************;
%IF &REGCAT = Region %THEN %DO;
```

```
             MAJGRP = PUT(7,MAJGRPF.);
             SCORE = ADJ7;
             SEMEAN = SEMEAN7;
             N_OBS = &PREFIX.CNT7;
             N_WGT = &PREFIX.WGT7;
             OUTPUT;
         %END;
         ********************************************************************;
         * 8 = All Beneficiaries ;
         ********************************************************************;
         MAJGRP = PUT(8,MAJGRPF.);
         SCORE  = ADJ8;
         SEMEAN = SEMEAN8;
         N_OBS = &PREFIX.CNT8;
         N_WGT = &PREFIX.WGT8;
         OUTPUT;

    KEEP MAJGRP
         REGION
         REGCAT
         BENTYPE
         BENEFIT
         TIMEPD
         SCORE
         SEMEAN
         N_OBS
         N_WGT
         SIG
         ;
    RUN;

    %MEND;

    *****************************************************************************;
    * COMPOSITE # 1.;
    * GETTING NEEDED CARE VARIABLES.;
    *****************************************************************************;
    %PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE, REGCAT=Region);
    %PROCESS(QUESTION=R_R09029,TYPE=INDIVIDUAL,REGCAT=Region);
    %PROCESS(QUESTION=R_R09033,TYPE=INDIVIDUAL,REGCAT=Region);

    %PROCESS(QUESTION=CCOMPOS1,TYPE=COMPOSITE, REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09029,TYPE=INDIVIDUAL,REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09033,TYPE=INDIVIDUAL,REGCAT=Catchment);


    *****************************************************************************;
    * COMPOSITE # 2.;
    * GETTING CARE QUICKLY VARIABLES.;
    *****************************************************************************;
    %PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE, REGCAT=Region);
    %PROCESS(QUESTION=R_R09007,TYPE=INDIVIDUAL,REGCAT=Region);
    %PROCESS(QUESTION=R_R09010,TYPE=INDIVIDUAL,REGCAT=Region);

    %PROCESS(QUESTION=CCOMPOS2,TYPE=COMPOSITE, REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09007,TYPE=INDIVIDUAL,REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09010,TYPE=INDIVIDUAL,REGCAT=Catchment);


    *****************************************************************************;
    * COMPOSITE # 3.;
    * HOW WELL DOCTORS COMMUNICATE.;
    *****************************************************************************;
    %PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE, REGCAT=Region);
    %PROCESS(QUESTION=R_R09021,TYPE=INDIVIDUAL,REGCAT=Region);
    %PROCESS(QUESTION=R_R09022,TYPE=INDIVIDUAL,REGCAT=Region);
    %PROCESS(QUESTION=R_R09023,TYPE=INDIVIDUAL,REGCAT=Region);
    %PROCESS(QUESTION=R_R09024,TYPE=INDIVIDUAL,REGCAT=Region);

    %PROCESS(QUESTION=CCOMPOS3,TYPE=COMPOSITE, REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09021,TYPE=INDIVIDUAL,REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09022,TYPE=INDIVIDUAL,REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09023,TYPE=INDIVIDUAL,REGCAT=Catchment);
    %PROCESS(QUESTION=C_R09024,TYPE=INDIVIDUAL,REGCAT=Catchment);
```

```
*************************************************************************;
* COMPOSITE # .;
* COURTEOUS AND HELPFUL OFFICE STAFF.;
*************************************************************************;


*************************************************************************;
* COMPOSITE # 4.;
* CUSTOMER SERVICE.;
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R09040,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R09041,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS4,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R09040,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R09041,TYPE=INDIVIDUAL,REGCAT=Catchment);

*************************************************************************;
* COMPOSITE # 5.;
* CLAIMS PROCESSING.;
*************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE, REGCAT=Region);
%PROCESS(QUESTION=R_R09045,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=R_R09046,TYPE=INDIVIDUAL,REGCAT=Region);

%PROCESS(QUESTION=CCOMPOS5,TYPE=COMPOSITE, REGCAT=Catchment);
%PROCESS(QUESTION=C_R09045,TYPE=INDIVIDUAL,REGCAT=Catchment);
%PROCESS(QUESTION=C_R09046,TYPE=INDIVIDUAL,REGCAT=Catchment);

*************************************************************************;
* INDIVIDUAL # 1.;
* RATING OF ALL HEALTH CARE: 0 - 10.;
*************************************************************************;
%PROCESS(QUESTION=R_R09018,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R09018,TYPE=INDIVIDUAL,REGCAT=Catchment);


*************************************************************************;
* INDIVIDUAL # 2.;
* RATING OF HEALTH PLAN: 0 - 10.;
*************************************************************************;
%PROCESS(QUESTION=R_R09047,TYPE=INDIVIDUAL,REGCAT=Region)
%PROCESS(QUESTION=C_R09047,TYPE=INDIVIDUAL,REGCAT=Catchment)


*************************************************************************;
* INDIVIDUAL # 3.;
* RATING OF PERSONAL DOCTOR: 0 - 10.;
*************************************************************************;
%PROCESS(QUESTION=R_R09027,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R09027,TYPE=INDIVIDUAL,REGCAT=Catchment);


*************************************************************************;
* INDIVIDUAL # 4.;
* SPECIALTY CARE: 0 - 10.;
*************************************************************************;
%PROCESS(QUESTION=R_R09031,TYPE=INDIVIDUAL,REGCAT=Region);
%PROCESS(QUESTION=C_R09031,TYPE=INDIVIDUAL,REGCAT=Catchment);


*************************************************************************;
*************************************************************************;
* STACK up all of the files into one final output dataset.;
*************************************************************************;
*************************************************************************;
DATA OUT.LOADCAHP;
    SET R_R09029 C_R09029
        R_R09033 C_R09033
        R_R09007 C_R09007
        R_R09010 C_R09010
        R_R09021 C_R09021
        R_R09022 C_R09022
        R_R09023 C_R09023
        R_R09024 C_R09024
       R_R09040 C_R09040
        R_R09041 C_R09041
```

```
            R_R09045 C_R09045
            R_R09046 C_R09046
            R_R09018 C_R09018
            R_R09047 C_R09047
            R_R09027 C_R09027
            R_R09031 C_R09031
           RCOMPOS1 CCOMPOS1
           RCOMPOS2 CCOMPOS2
           RCOMPOS3 CCOMPOS3
           RCOMPOS4 CCOMPOS4
         RCOMPOS5 CCOMPOS5

       ;
       IF SCORE = . THEN DELETE;
    RUN;

    TITLE1 "2009 DOD Health Survey Scores/Report Cards (6244-410)";
    TITLE2 "Program Name: LOADCAHP.SAS By Keith Rathbun";
    TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
    TITLE4 "Program Outputs: LOADCAHP.sas7bdat - Combined CAHPS Scores Database in WEB layout";

    PROC FREQ;
    TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
           REGION*REGCAT
         /MISSING LIST;
    RUN;
```

```
*****************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accommodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*           4) 04/03/2003 BY MIKE SCOTT, Added parameters for 2003 survey.
*           5) 07/08/2003 BY MIKE SCOTT, Added formats GETNCARE, GETCAREQ,
*              CRTSHELP, HOWWELL, CUSTSERV, CLMSPROC, and PREVCARE.
*           6) 03/22/2004 BY KEITH RATHBUN, Added parameters for 2004 survey.
*              Changed R04031 to be "Wait Less than 15 Minutes For Appointment".
*           7) 05/06/2004 BY MIKE SCOTT, Changed R04031 back to 2003 version of
*              the label ("Wait More than 15 Minutes Past Appointment") so that
*              the Q1 2004 version of the question is consistent with past
*              versions.  The label will be changed to the new version ("Waiting
*              in the Doctor's Office") in Makehtmq.sas.
*           8) 02/2006 BY REGINA GRAMSS, Changed date format to fielding dates.
*           9) 03/21/2006 BY KEITH RATHBUN, Added parameters for 2006 survey.
*          10) 08/22/2006 BY JUSTIN OH, Changed SERVREGF format for Overseas.
*          11) 12/15/2006 BY JUSTIN OH, Added parameters for 2007 survey.
*          12) 02/02/2007 BY JUSTIN OH, Added "s" in Healthy Behaviors in VALUE BEN.
*          13) 01/10/2008 BY KEITH RATHBUN, Added parameters for 2008 survey.
*          14) 01/09/2009 BY MIKE RUDACILLE, Added parameters for 2009 survey.
*          14) 01/16/2009 BY MIKE RUDACILLE, Changed CONUS to USA.
*          15) 04/11/2009 by Mike Rudacille - Changed formats to reflect
*              modifications to beneficiary reports necessary for V4
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
* NOTES:    1) Under the new contract (8860), the survey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*****************************************************************************
;
*****************************************************************************
* FORMAT Definitions
*****************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees            "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
      5 = "Active Duty                "
      6 = "Active Duty Dependents     "
      7 = "Retirees and Dependents    "
      8 = "All Beneficiaries          "
   ;
   VALUE XSERVAFF
      1 = "ARMY"
      2 = "AIR FORCE"
      3 = "NAVY"
      4 = "OTHER"
   ;
   VALUE REGIONF
      0 = "USA MHS "
```

```
        1 = "North"
        2 = "South"
        3 = "West"
        4 = "Overseas"
      ;

/*JSO 08/24/2006, Changed Overseas to Service for Europe,Pacific,Latin*/
    VALUE SERVREGF
        1 = "North Army"
        2 = "North Air Force"
        3 = "North Navy"
        4 = "North Other"
        5 = "South Army"
        6 = "South Air Force"
        7 = "South Navy"
        8 = "South Other"
        9 = "West Army"
       10 = "West Air Force"
       11 = "West Navy"
       12 = "West Other"
       13 = "Europe Army"
       14 = "Europe Air Force"
       15 = "Europe Navy"
       16 = "Europe Other"
       17 = "Pacific Army"
       18 = "Pacific Air Force"
       19 = "Pacific Navy"
       20 = "Pacific Other"
       21 = "Latin America Army"
       22 = "Latin America Air Force"
       23 = "Latin America Navy"
       24 = "Latin America Other"
       25 = "USA ARMY"
       26 = "USA AIR FORCE"
       27 = "USA NAVY"
       28 = "USA OTHER";

/*JSO 08/24/2006, Changed Overseas to Europe,Pacific,Latin*/
    VALUE SERVREGO
        1 = "North Army"
        2 = "North Air Force"
        3 = "North Navy"
        4 = "North Other"
        5 = "South Army"
        6 = "South Air Force"
        7 = "South Navy"
        8 = "South Other"
        9 = "West Army"
       10 = "West Air Force"
       11 = "West Navy"
       12 = "West Other"
       13 = "Overseas Europe"
       14 = "Overseas Pacific"
       15 = "Overseas Latin America";

    VALUE $BENTYPF
    "1998    " = "1998                                           "
    "1999    " = "1999                                           "
    "2000    " = "2000                                           "
    "2001    " = "2001                                           "
    "2002    " = "2002                                           "
    "2003    " = "2003                                           "
    "2004    " = "2004                                           "
    "2005    " = "2005                                           "
    "2006    " = "2006                                           "
    "2007    " = "2007                                           "
    "2008    " = "2008                                           "
    "2000 Q1 " = "January, 2000 to December, 2000                "
    "2000 Q2 " = "April, 2000 to March, 2001                     "
    "2000 Q3 " = "July, 2000 to June, 2001                       "
    "2000 Q4 " = "October, 2000 to September, 2001               "
    "2002 Q1 " = "January, 2001 to December, 2001                "
    "2002 Q2 " = "April, 2001 to March, 2002                     "
    "2002 Q3 " = "July, 2001 to June, 2002                       "
```

```
        "2002 Q4 " = "October, 2001 to September, 2002               "
        "2003 Q1 " = "January, 2002 to December, 2002               "
        "2003 Q2 " = "April, 2002 to March, 2003                    "
        "2003 Q3 " = "July, 2002 to June, 2003                      "
        "2003 Q4 " = "October, 2002 to September, 2003              "
        "2004 Q1 " = "January, 2003 to December, 2003               "
        "2004 Q2 " = "April, 2003 to March, 2004                    "
        "2004 Q3 " = "Quarter 3, CY 2004                            "
        "2004 Q4 " = "Quarter 4, CY 2004                            "
        "2005 Q1 " = "January, 2005                                 "
        "2005 Q2 " = "April, 2005                                   "
        "2005 Q3 " = "July, 2005                                    "
        "2005 Q4 " = "October, 2005                                 "
        "2006 Q1 " = "January, 2006                                 "
        "2006 Q2 " = "April, 2006                                   "
        "2006 Q3 " = "July, 2006                                    "
        "2006 Q4 " = "October, 2006                                 "
        "2007 Q1 " = "January, 2007                                 "
        "2007 Q2 " = "April, 2007                                   "
        "2007 Q3 " = "July, 2007                                    "
        "2007 Q4 " = "October, 2007                                 "
        "2008 Q1 " = "January, 2008                                 "
        "2008 Q2 " = "April, 2008                                   "
        "2008 Q3 " = "July, 2008                                    "
        "2008 Q4 " = "October, 2008                                 "
        "2009 Q1 " = "January, 2009                                 "
        "2009 Q2 " = "April, 2009                                   "
        "2009 Q3 " = "July, 2009                                    "
        "2009 Q4 " = "October, 2009                                 "

/******************************************************************************************
/
        /*                          Admin.                      Year                    Defn.
*/
        /* 2001        2002        2003        2004     2005     2006     2007     2008
2009   */

/******************************************************************************************
/
        "R00014  ", "R02016  ", "R03013  ", "R04013", "R05013", "R06013", "R07013", "R08013",
"R09029" = "Getting to See a Specialist        "
        "R00028  ", "R02030  ", "R03027  ", "R04028", "R05027", "R06027", "R07027", "R08027",
"R09033" = "Getting Treatment                  "
        "R00024  ", "R02026  ", "R03023  ", "R04020", "R05019", "R06019", "R07019", "R08019",
"R09007" = "Wait for Urgent Care               "
        "R00021  ", "R02023  ", "R03020  ", "R04023", "R05022", "R06022", "R07022", "R08022",
"R09010" = "Wait for Routine Visit             "
        "R00033  ", "R02035  ", "R03032  ", "R04034", "R05033", "R06033", "R07033", "R08033",
"R09021" = "Listens Carefully                  "
        "R00034  ", "R02036  ", "R03033  ", "R04035", "R05034", "R06034", "R07034", "R08034",
"R09022" = "Explains so You Can Understand      "
        "R00035  ", "R02037  ", "R03034  ", "R04036", "R05035", "R06035", "R07035", "R08035",
"R09023" = "Shows Respect                      "
        "R00036  ", "R02038  ", "R03035  ", "R04037", "R05036", "R06036", "R07036", "R08036",
"R09024" = "Spends Time with You               "
        "R00048  ", "R02048  ", "R03044  ", "R04045", "R05043", "R06043", "R07043", "R08043",
"R09040" = "Getting Information                "
        "R00050  ", "R02050  ", "R03046  ", "R04047", "R05045", "R06045", "R07045", "R08045",
"R09041" = "Courteous Customer Service         "
        "R00044  ", "R02044  ", "R03040  ", "R04041", "R05040", "R06040", "R07040", "R08040",
"R09045" = "Claims Handled in a Reasonable Time"
        "R00045  ", "R02045  ", "R03041  ", "R04042", "R05041", "R06041", "R07041", "R08041",
"R09046" = "Claims Handled Correctly           "
        "R00037  ", "R02039  ", "R03036  ", "R04038", "R05037", "R06037", "R07037", "R08037",
"R09018" = "Health Care                        "
        "R00056  ", "R02056  ", "R03052  ", "R04054", "R05048", "R06048", "R07048", "R08048",
"R09047" = "Health Plan                        "
        "R00009  ", "R02011  ", "R03011  ", "R04009", "R05009", "R06009", "R07009", "R08009",
"R09027" = "Primary Care Manager               "
        "R00016  ", "R02018  ", "R03015  ", "R04015", "R05015", "R06015", "R07015", "R08015",
"R09031" = "Specialty Care                     "
                              "PHYSIC  " = "Physical                               "
                              "MENTAL  " = "Mental                                 "
        ;
```

```
        VALUE $BENEF
         "RCOMPOS1","CCOMPOS1","R00014","R00028",
                                "R02016","R02030",
                                "R03013","R03027",
                                "R04013","R04028",
                                "R05013","R05027",
                                "R06013","R06027",
                                "R07013","R07027",
                                "R08013","R08027",
                                "R09029","R09033"
         = "Getting Needed Care  "

         "RCOMPOS2","CCOMPOS2","R00024","R00021",
                                "R02026","R02023",
                                "R03023","R03020",
                                "R04020","R04023",
                                "R05019","R05022",
                                "R06019","R06022",
                                "R07019","R07022",
                                "R08019","R08022",
                                "R09007","R09010"
         = "Getting Care Quickly "

         "RCOMPOS3","CCOMPOS3","R00033","R00034","R00035","R00036",
                                "R02035","R02036","R02037","R02038",
                                "R03032","R03033","R03034","R03035",
                                "R04034","R04035","R04036","R04037",
                                "R05033","R05034","R05035","R05036",
                                "R06033","R06034","R06035","R06036",
                                "R07033","R07034","R07035","R07036",
                                "R08033","R08034","R08035","R08036",
                                "R09021","R09022","R09023","R09024"
         = "How Well Doctors Communicate "

         "RCOMPOS4","CCOMPOS4","R00048","R00050",
                                "R02048","R02050",
                                "R03044","R03046",
                                "R04045","R04047",
                                "R05043","R05045",
                                "R06043","R06045",
                                "R07043","R07045",
                                "R08043","R08045",
                                "R09040","R09041"
         = "Customer Service         "

         "RCOMPOS5","CCOMPOS5","R00044","R00045",
                                "R02044","R02045",
                                "R03040","R03041",
                                "R04041","R04042",
                                "R05040","R05041",
                                "R06040","R06041",
                                "R07040","R07041",
                                "R08040","R08041",
                                "R09045","R09046"
         = "Claims Processing
                  "
         "RCOMPOS11","COMPOS11","MENTAL","PHYS"
         = "Health Status                  "

/*************************************************************************************/
         /*                       Admin.                    Year                      Defn.
*/
         /* 2001      2002      2003      2004      2005      2006      2007      2008      2009
*/

/*************************************************************************************/
         "R00037",  "R02039",  "R03036",  "R04038",  "R05037",  "R06037",  "R07037",  "R08037",
"R09018" = "Health Care                            "
         "R00056",  "R02056",  "R03052",  "R04054",  "R05048",  "R06048",  "R07048",  "R08048",
"R09047" = "Health Plan                        "
         "R00009",  "R02011",  "R03011",  "R04009",  "R05009",  "R06009",  "R07009",  "R08009",
"R09027" = "Primary Care Manager                 "
         "R00016",  "R02018",  "R03015",  "R04015",  "R05015",  "R06015",  "R07015",  "R08015",
"R09031" = "Specialty Care                       "
```

```
   ;
VALUE BEN
/*  0 = 'Total'   deleted no longer calculating total 04/2005 RSG ***/
  1 = 'Getting Needed Care'
  2 = 'Getting Care Quickly'
  3 = 'How Well Doctors Communicate'
  4 = 'Customer Service'
  5 = 'Claims Processing'
  6 = 'Health Plan'
  7 = 'Health Care'
  8 = 'Primary Care Manager'
  9 = 'Specialty Care'
 10 = 'Preventive Care'
 11 = 'Healthy Behaviors';

 VALUE MAJOR
 1 = "Prime Enrollees           "
 2 = "Enrollees with Military PCM"
 3 = "Enrollees with Civilian PCM"
 4 = "Non-enrolled Beneficiaries "
 5 = "Active Duty               "
 6 = "Active Duty Dependents    "
 7 = "Retirees and Dependents   "
 8 = "All Beneficiaries         ";

 VALUE GETNCARE
 1 = "Getting to See a Specialist"
 2 = "Getting Treatment"
 3 = "Composite";

 VALUE GETCAREQ
 1 = "Wait for Routine Visit"
 2 = "Wait for Urgent Care"
 3 = "Composite";

 VALUE HOWWELL
 1 = "Listens Carefully"
 2 = "Explains so You Can Understand"
 3 = "Shows Respect"
 4 = "Spends Time with You"
 5 = "Composite";

 VALUE CUSTSERV
 1 = "Getting Information"
 2 = "Courteous Customer Service"
 3 = "Composite";

 VALUE CLMSPROC
 1 = "Claims Handled in a Reasonable Time"
 2 = "Claims Handled Correctly"
 3 = "Composite";

 VALUE PREVCARE
 1 = "Mammography"
 2 = "Pap Smear"
 3 = "Hypertension"
 4 = "Prenatal Care"
 5 = "Composite";

 VALUE SMOKEF
 1 = "Non-Smoking Rate"
 2 = "Counselled To Quit"
 3 = "Percent Not Obese"
 4 = "Composite";
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Adjust Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:   1) BENCHA02.SD2 - 2005 Adult CAHPS Questions Renamed to be
*              consistent with the 2006 MPR DOD Survey.
*           2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED: 1) Nov 2000 BY ERIC SCHONE - Output permanent datasets with
*              scores and standard errors and process the rest of the
*              composites and ratings.
*           2) Dec 2000 BY KEITH RATHBUN - Update variable names for
*              Q1 2000 Survey.
*           3) Jan 2002 BY KEITH RATHBUN - Updated to run under SAS
*              version 8 (changed INTERCEP to INTERCEPT).
*           4) Apr 2002 BY MIKE SCOTT - Updated variable names for Q1
*              2002 Survey.
*           5) Jul 2002 BY MIKE SCOTT - Changed R00077 to R04075, since
*              H02077 (health status) is back and was renamed to R04075
*              in HSC022_1.sd2.
*           6) Mar 2003 BY MIKE SCOTT - Updated for 2003 survey.
*           7) May 2003 BY MIKE SCOTT - Changed ac03_01 to ac03_02.
*           8) Jun 2003 BY MIKE SCOTT - Updated for Q2 2003.
*           9) Oct 2003 BY MIKE SCOTT - Updated for Q3 2003.
*          10) Mar 2004 BY MIKE SCOTT - Updated for Q1 2004.
*          11) April 2004 BY KEITH RATHBUN - Updated to use the CAHPS 2003
*              variable ac03_03.
*          12) June 2004 BY REGINA GRAMSS - Updated to use for Q2 2004
*          13) Sept 2004 BY REGINA GRAMSS - Update for Q3 2004
*          14) May 2005 BY REGINA GRAMSS - Updated for Q1 2005
*          15) Jul 2005 BY REGINA GRAMSS - Updated for Q2 2005
*          16) Oct 2005 BY REGINA GRAMSS - Updated for Q3 2005
*          17) Dec 2005 BY REGINA GRAMSS - Updated for Q4 2005
*          18) 03/24/2006 BY KEITH RATHBUN, Updated for Q2 FY 2006.
*              Changed variable names to match the 2006 HCSDB survey.
*          19) 07/12/2006 by Justin Oh - Updated for Q3 FY 2006.
*          20) 10/03/2006 by Justin Oh - Changed libname in2 for Q4FY2006.
*              Change the INCLUDE path to CONVERT.sas file.
*          21) 12/18/2006 by Justin Oh - Changed libname in2 for Q1FY2007.
*              Change the INCLUDE path to CONVERT.sas file.
*          22) 04/05/2007 by Justin Oh - Changed libname in2 for Q2FY2007.
*              Change the INCLUDE path to CONVERT.sas file.
*          23) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
*              ReportCards OR PurchasedReportCards.
*          24) 04/05/2007 by Keith Rathbun - Changed libname in2 for Q3FY2007.
*              Change the INCLUDE path to CONVERT.sas file.
*          25) 09/04/2007 by Justin Oh - Changed libname in2 for Q4FY2007.
*              Change the INCLUDE path to CONVERT.sas file.
*          26) 01/10/2008 BY KEITH RATHBUN, Updated for Q1 FY 2008.
*              Changed variable names to match the 2008 HCSDB survey.
*          27) 04/11/2008 by Justin Oh - Changed libname in2 for Q2FY2008.
*              Change the INCLUDE path to CONVERT.sas file.
*          28) 06/13/2008 by Keith Rathbun - Changed libname in2 for Q3FY2008.
*              Change the INCLUDE path to CONVERT.sas file.
*          29) April 10, 2009 by Mike Rudacille, changed variable names to reflect
*              modifications to beneficiary reports necessary for V4
*          30) Sept 30, 2009 by Mike Rudacille - Changed libname in2 for Q4FY2009.
*              Change the INCLUDE path to CONVERT.sas file.
*                 31) October 9, 2009 by Emma Ernst- Updated for 2009 database
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
```

```
       ****************************************************************************
       * Assign data libraries and options
       ****************************************************************************;

       /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards              ***/
       %LET RCTYPE = ReportCards;

       *libname  in          "..\..\..\..\Q2FY2009\Programs\Benchmark\Data"; /*Use BENCHA02.sas7bdat
from Q2fy2009*/
       libname  in        "..\..\..\Q1FY2009t\Programs\BenchmarkV3\Data";
       libname in2        "..\&RCTYPE.V3\CAHPS_Adult2009\Data";
       libname out        "Data";
       LIBNAME LIBRARY "..\..\..\DATA\FMTLIB";

       %let wgt=CFW_V3;

       OPTIONS MLOGIC MPRINT NOCENTER MERGENOBY=WARN LS=132 PS=79;


       %macro comb(f,t,q,l);

       proc summary data=&f;
        var &t;
        where &q~=.;
        weight &wgt;
        output out=temp mean=&t;
       run;

       data temp;
        set temp;
        array old &t;
        call symput('z',left(dim(old)));
       run;

       data temp(drop=_type_ &t);
        set temp;
        array old &t;
        array new var1-var&z;
         do i=1 to &z;
          new(i)=old(i);
         end;
       run;

       data &q._&l;
        merge temp c_&q;
        array coeffs &t;
        array means var1-var&z;
         DO I = 1 TO DIM(COEFFS);
           IF COEFFS(I) = . THEN COEFFS(I) = 0;
           IF MEANS(I) = . THEN MEANS(I) = 0;
           ADJUST + ( COEFFS(I) * MEANS(I) );
          END;

        ADJUST = ADJUST + intercept;
        &q._&l=adjust;

       run;

       %mend comb;

       %macro adjust(x,y);



       proc summary data=setup;
       where &x>.;
        class product;

        output out=count;
       run;

       data count count2(rename=(_freq_=denom));
        set count;
        if _type_=0 then output count2;
```

```
 else output count;
run;

data count(keep=pweight product);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by product;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;

proc sort data=r_&x; by product;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST product / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;
```

```
      %mend adjust;

      /* adjust all the variables */

      %macro comp(compno,a,b,c,d);
       %if &a~= %then %do;
        %let n=r_&a;
        %let m=s_&a;
        %do i=1 %to 8;
         %let p&i=&a._&i;
        %end;
        %let grpnum=1;
         proc sort data=r_&a;
          by mpid;
         run;
       %end;
       %if &b~= %then %do;
        %let n=%str(&n r_&b);
        %let m=%str(&m s_&b);
        %do i=1 %to 8;
         %let p&i=%str(&&p&i &b._&i);
        %end;
        %let grpnum=2;
         proc sort data=r_&b;
          by mpid;
         run;
       %end;
       %if &c~= %then %do;
        proc sort data=r_&c;
         by mpid;
        run;
        %let grpnum=3;
        %let n=%str(&n r_&c);
        %do i=1 %to 8;
         %let p&i=%str(&&p&i &c._&i);
        %end;
        %let m=%str(&m s_&c); %end;

        %if &d~= %then %do;
         proc sort data=r_&d;
          by mpid;
         run;
         %let grpnum=4;
         %let n=%str(&n r_&d);
          %do i=1 %to 8;
           %let p&i=%str(&&p&i &d._&i);
          %end;

          %let m=%str(&m s_&d);
        %end;

      data infile;
       merge &n;
       by mpid;
      run;

      proc corr outp=outf noprint;
       var &n;
       weight pweight;
      run;

      data final;
       if _n_=1 then do;
        %if &a~= %then %do;
         set s_&a;
        %end;
        %if &b~= %then %do;
         set s_&b;
        %end;
        %if &c~= %then %do;
         set s_&c;
        %end;
        %if &d~= %then %do;
```

```
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
   %do i=1 %to &grpnum;
    if _name_="r_&&s&i" then
     sde=sde+r_val(i)*s_&&s&i*s_val(i);
   %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
   merge &&p&i;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;

data out&compno._&i;
 merge output temp;
run;

data out.comp&compno._&i;
   merge out&compno._&i
         sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by product;
run;
data setup;
set setup;
if ^(model in (2,4));
if disp in ('M10','I10')  ;   ***KRR 04/19/04 Changed _02 to _03;
data setup;
 set setup; by product;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;
```

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```
     if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
 if agegroup<6;



run;
%INCLUDE "..\REPORTCARDSV3\CAHPS_Adult2009\CONVERT.SAS";

%CONT1(DSN=SETUP, NUM=7,  Y=R09011 R09013 R09027 R09029
                          R09043 R09045 R09047);
%CONT2(DSN=SETUP, NUM=4,  Y=R09037 R09048 R09009 R09015);
%CONT3(DSN=SETUP, NUM=12, Y=R09017 R09022 R09019 R09030
                          R09033 R09034 R09035 R09036
                          R09031 R09032 R09040 R09041);
/* GETTING NEEDED CARE */
%adjust(R09011,age1824 age2534 age3544 age4554  R09063);
%adjust(R09013,age1824 age2534 age3544 age4554  R09063);
%adjust(R09027,age1824 age2534 age3544 age4554  R09063);
%adjust(R09029,age1824 age2534 age3544 age4554  R09063);
%comp(1,R09013,R09027);

/* GETTING NEEDED CARE QUICKLY */
%adjust(R09017,age1824 age2534 age3544 age4554  R09063);
%adjust(R09022,age1824 age2534 age3544 age4554  R09063);
%adjust(R09019,age1824 age2534 age3544 age4554  R09063);
%adjust(R09030,age1824 age2534 age3544 age4554  R09063);
%comp(2,R09022,R09019);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(R09033,age1824 age2534 age3544 age4554  R09063);
%adjust(R09034,age1824 age2534 age3544 age4554  R09063);
%adjust(R09035,age1824 age2534 age3544 age4554  R09063);
%adjust(R09036,age1824 age2534 age3544 age4554  R09063);
%comp(3,R09033,R09034,R09035,R09036);

/* COURTEOUS AND HELPFUL OFFICE STAFF */
%adjust(R09031,age1824 age2534 age3544 age4554  R09063);
%adjust(R09032,age1824 age2534 age3544 age4554  R09063);
%comp(4,R09031,R09032);

/* CUSTOMER SERVICE */
%adjust(R09043,age1824 age2534 age3544 age4554  R09063);
%adjust(R09045,age1824 age2534 age3544 age4554  R09063);
%adjust(R09047,age1824 age2534 age3544 age4554  R09063);
%comp(5,R09043,R09045,R09047);

/* CLAIMS PROCESSING */
%adjust(R09040,age1824 age2534 age3544 age4554  R09063);
%adjust(R09041,age1824 age2534 age3544 age4554  R09063);
%comp(6,R09040,R09041);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(R09037,age1824 age2534 age3544 age4554  R09063);
%comp(7,R09037);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(R09048,age1824 age2534 age3544 age4554  R09063);
%comp(8,R09048);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(R09009,age1824 age2534 age3544 age4554  R09063);
%comp(9,R09009);

/* SPECIALTY CARE */
%adjust(R09015,age1824 age2534 age3544 age4554  R09063);
%comp(10,R09015);
```

G.12.B.1 BENCHMARKV3\APREDTEST\SAS2STATA_GRPS.SAS - CONVERTS THE GROUPS DATASETS FROM SAS TO STATA - ANNUAL-V3.

```
*****************************************************************************
*
* PROGRAM:  SAS2STATA_Grps.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Convert the CAHPS BENCHA02 and GROUP1-8 Files to STATA format
*
* WRITTEN:  01/11/2008 BY KEITH RATHBUN
*
* INPUTS:   1) BENCHA02.sas7bdat - CAHPS Benchmark Scores Database
*              GROUPi.sas7bdat - Group Files created by STEP1.SAS
*                         (where i = 1 -8 = group number)
*
* OUTPUTS:  1) BENCHA02.dta - CAHPS Benchmark Scores Database - STATA format
*              GROUPi.dta - Group Files created by STEP1.SAS - STATA format
*                         (where i = 1 -8 = group number)
*
* MODIFIED:
*
* NOTES:
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;
%LET YEAR = 2009;
LIBNAME   INBENCH    "..\..\..\..\Q1FY2009t\Programs\BenchmarkV3\Data";          /*Use
BENCHA02.sas7bdat from Q1fy2009t*/
LIBNAME INGROUP "..\..\ReportCardsV3\cahps_adult&YEAR.\data";

*****************************************************************************
* Convert CAHPS BENCHA02 to STATA format.
*****************************************************************************;
PROC EXPORT
   DATA = INBENCH.BENCHA02
   OUTFILE = "BENCHA02.DTA"
   DBMS = DTA
   REPLACE;
RUN;

*****************************************************************************
* Convert SAS Group files to STATA format.
*****************************************************************************;
%MACRO CONVERT2STATA;
   %DO I = 1 %TO 8;
       PROC EXPORT
           DATA = INGROUP.GROUP&I
           OUTFILE = "GROUP&I..DTA"
           DBMS = DTA
           REPLACE;
       RUN;
   %END;
%MEND CONVERT2STATA;

%CONVERT2STATA;
```

```
/*
   Program: vartest.do
   Author:  Eric Schone
   Modified: 1) 11/15/2006 Justin Oh, Added global variable "path"
                for assigning folder directory.
             2) 06/22/2009 Keith Rathbun, Changed fwrwt_v4 back to fwrwt
                and updated path for q3fy2009.

   WARNING - MUST EDIT THE GLOBAL PATH FOR EACH REPORTING PERIOD
*/


global path "L:\2009\Programs\BenchmarkV3"


program define initial
version 7.0

local i=1
while `i'<9{

gen str8 var=" "
gen se=.

saveold "$path\apredtest\projerr`i'",replace

clear
 local i=`i'+1
}
end
program define stdlist1
version 7.0
local varlist required existing
parse "`*'"
while "`1'"~=""{

use "$path\apredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=10  if 8<=`1' & `1'<=10
replace `1'=0 if `1'~=. & `1'<8
replace `1'=`1'/10
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
```

```
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063

local i=1
while `i'<9{
use "$path\apredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=cfw_v3]
predict se, stdp
keep se
gen str8 var="`1'"
append using "$path\apredtest\projerr`i'"
saveold "$path\apredtest\projerr`i'",replace

local i=`i'+1
}
macro shift
}
end
program define stdlist2
version 7.0
local varlist required existing
parse "`*'"

while "`1'"~=""{

use "$path\apredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=0 if `1'~=. & `1'<3
replace `1'=1 if `1'>=2
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063
local i=1
while `i'<9{
use "$path\apredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=cfw_v3]
predict se, stdp
keep se
gen str8 var="`1'"
```

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```
append using "$path\apredtest\projerr`i'"
saveold "$path\apredtest\projerr`i'", replace
local i=`i'+1
}
macro shift
}
end


program define stdlist3
version 7.0
local varlist required existing
parse "`*'"

while "`1'"~=""{

use "$path\apredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.
keep if agegroup<6
replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6

replace `1'=0 if `1'~=. & `1'<2
replace `1'=1  if 2<=`1' & `1'<=4
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063
local i=1
while `i'<9{

use "$path\apredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=cfw_v3]
predict se, stdp
keep se
gen str8 var="`1'"
append using "$path\apredtest\projerr`i'"
saveold "$path\apredtest\projerr`i'",replace
local i=`i'+1
}
macro shift
}
end


set more 1

set mem 100m
```

```
log using "$path\apredtest\varlog",replace
initial

use "$path\apredtest\bencha02",clear
stdlist2 r09013 r09027
use "$path\apredtest\bencha02",clear
stdlist1 r09037 r09048 r09009 r09015
use "$path\apredtest\bencha02",clear
stdlist3 r09019 r09022 r09033 r09034 r09035 r09036 r09040 r09041

log close
```

```
*****************************************************************************
*
* PROGRAM:   STATA2SAS_Proj.SAS
* TASK:      Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:   Convert the PROJERR1-8 Files to SAS format
*
* WRITTEN:   01/11/2008 BY KEITH RATHBUN
*
* INPUTS:    1) PROJERRi.DTA - PROJERR Files created by VARTEST.DO
*                              (where i = 1 -8 = group number)
*
* OUTPUTS:   1) PROJERRi.sas7bdat - PROJERR Files created by VARTEST.DO - SAS format
*                              (where i = 1 -8 = group number)
*
* MODIFIED:
*
* NOTES:
*
*****************************************************************************
* Assign data libraries and options
****************************************************************************;
LIBNAME OUT ".";

*****************************************************************************
* Convert the PROJERR1-8 Files to SAS format
****************************************************************************;
%MACRO CONVERT2SAS;
   %DO I = 1 %TO 8;
       PROC IMPORT
           DATAFILE="projerr&i..dta"
           OUT=OUT.projerr&i
           DBMS=dta
           REPLACE;
       RUN;
   %END;
%MEND CONVERT2SAS;

%CONVERT2SAS;
```

```
/*****************************************************************
/*
/*  Project:  HCSDB Adult Report Cards
/*  Program:  PREDCOMP.SAS
/*  Purpose:  Adult Report Card
/*  Requires programs STEP1Q and STEP2Q.SAS
/*
/****************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=NO;
libname in  ".";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,VAR5=,QCOUNT=);
 %do i=1 %to 8;
  data temp&i(keep=x se);
        set in.projerr&i end=last;
        variance=se**2;
        %do j=1 %to &qcount;
         if upcase(var)="&&var&j" then t_var+variance;
        %end;
        if last then do;
         se=t_var**.5/&qcount;
         x=&i;
          output;
        end;
  %end;
  data in.comp&compos;
    set temp1 temp2 temp3 temp4 temp5 temp6 temp7 temp8;
  run;



 %MEND COMPOSIT;

 *------------------------------------;
 *-       set the parameters here    -;
 *------------------------------------;
 ***********************************;
 *  call the macro for each composite;
 ***********************************;
 %COMPOSIT (type=R,compos=1,var1=R09013,var2=R09027,qcount=2);
 %COMPOSIT (type=R,compos=2,var1=R09022,var2=R09019,qcount=2);
 %COMPOSIT (type=R,compos=3,var1=R09033,var2=R09034,var3=R09035,var4=R09036,qcount=4);
 %COMPOSIT (type=R,compos=4,var1=R09031,var2=R09032,qcount=2);
 %COMPOSIT (type=R,compos=5,var1=R09043,var2=R09045,var3=R09047,qcount=3);
 %COMPOSIT (type=R,compos=6,var1=R09040,var2=R09041,qcount=2);
```

G.12.C   BENCHMARKV3\BENCHA04.SAS - CONVERT THE BENCHMARK SCORES DATABASE INTO THE WEB LAYOUT - ANNUAL-V3.

```
      ****************************************************************************
      *
      * PROGRAM:  BENCHA04.SAS
      * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
      * PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
      *
      * WRITTEN:  06/01/2000 BY KEITH RATHBUN
      *
      * INPUTS:   1) Benchmark data sets with adjusted scores
      *              (COMPn_i.SD2 where n = composite number and i = group number)
      *
      * OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
      *
      * INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
      *              and composite data sets
      *
      * MODIFIED: 1) Dec 2000 bY Keith Rathbun: Updated variable names for
      *              Q1 2000 Survey.  For the quarterly survey group 8 (all benes)
      *              is being used as the benchmark for all groups (1-8).  Thus,
      *              this group is copied and output to each of the other 7 groups.
      *           2) 01/23/2002 by Mike Scott: Updated variable names to be consistent
      *              with 2000 survey.
      *           4) 04/15/2002 by Mike Scott - Updated variable names for
      *              Q1 2002 Survey.
      *           5) 03/21/2003 by Mike Scott - Updated for 2003 survey.
      *           6) 06/26/2003 by Mike Scott - Updated for Q2 2003.
      *           7) 07/03/2003 by Mike Scott - Added TIMEPD variable to be set to the period
      *              or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
      *              setting to 'Composite'.
      *           8) 07/18/2003 by Mike Scott - Added TIMEPD to FREQ.
      *           9) 10/21/2003 by Mike Scott - Updated for Q3 2003.
      *          10) 03/23/2004 by Mike Scott - Updated for Q1 2004.
      *          11) 06/15/2004 by Regina Gramss - Updated for Q2 2004.
      *          12) 09/2004    by Regina Gramss - Updated for Q3 2004.
      *          13) 05/2005    by Regina Gramss - Updated for Q1 2005.
      *          14) 10/2005    by Regina Gramss - Updated for Q3 2005.
      *          15) 03/24/2006 by Keith Rathbun - Updated for Q2 FY 2006.
      *              Added MACRO loop to process the 8 groups.
      *          16) 10/03/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q3.
      *          17) 12/18/2007 by Justin Oh - Updated BENTYPE composite year to 2006 Q4.
      *          18) 04/05/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q1.
      *          19) 04/05/2007 by Justin Oh - Updated LIBNAME IN2 to be used for purchase RC
programs.
      *          20) 09/04/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q3.
      *          21) 01/10/2008 by Keith Rathbun - Updated for Q1 FY 2008.
      *          22) 04/11/2008 by Justin Oh - Updated BENTYPE composite year to 2008 Q1.
      *          23) 06/13/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q2.
      *          24) 09/29/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q3.
      *          25) 04/10/2009 by Mike Rudacille - Changed variable names to reflect
      *              modifications to beneficiary reports necessary for V4
      *          26) 09/30/2009 by Mike Rudacille - Updated BENTYPE composite year to 2009 Q3.
      *
      * NOTES:
      *
      * 1) The following steps need to be run prior to this program:
      *    - BENCHA01.SAS - Extract Benchmark variables
      *    - BENCHA02.SAS - Recode Benchmark variables
      *    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
      *
      * 2) The output file (BENCHA04.SAS7BDAT) will be run through the
      *    MAKEHTML.SAS program to generate the WEB pages.
      *
      ****************************************************************************
      * Assign data libraries and options
      ****************************************************************************;
      LIBNAME IN  "DATA";
      LIBNAME IN2 "apredtest";
      LIBNAME OUT "DATA";
      LIBNAME LIBRARY  "..\..\..\DATA\FMTLIB";
```

```
OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

*****************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*****************************************************************************;
%INCLUDE "..\LOADWEBV3\LOADCAHQ.INC";

*****************************************************************************
*****************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* _____
*    Adjusted Score          Definitions
*    Group Number
* _____
* 1. Prime enrollees         XINS_COV IN (1,2,6) AND H09004_R>=7
* 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H09004_R>=7
* 3. Enrollees w/civ PCM      XENR_PCM = 3        AND H09004_R>=7
* 4. Nonenrollees            XINS_COV IN (3,4,5)
* 5. Active duty             BFGROUPP = 1
* 6. Active duty dependents   BFGROUPP = 2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
*****************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
*****************************************************************************
* Assign value for BENTYPE composite year
*****************************************************************************;
%LET YEAR = "2009"; * Note that this is based on Calendar Year here;

*****************************************************************************
* Convert benchmark scores datasets into WEB layout.
*****************************************************************************;
%IF &CNUM<7 %THEN %DO;

  DATA INP;
    SET IN2.COMP&CNUM;
     WHERE X=&GNUM;


   DATA INP;
    SET INP  IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;
%ELSE %DO;

   DATA INP;
    SET IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;


   DATA COMP&CNUM._&Gnum;
      SET INP;
     IF _N_=1 THEN
     SET IN.COMP&CNUM._&GNUM;
      LENGTH MAJGRP  $30;
      LENGTH REGION  $25;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;
```

```
      LENGTH TIMEPD  $35;   ***MJS 07/03/03 Added line;

  ************************************************************************
  * For now, assign SIG = 0
  ************************************************************************;
  SIG = 0;

  ************************************************************************
  * Assign major group
  ************************************************************************;
  MAJGRP  = PUT(&Gnum,MAJGRPF.);

  ************************************************************************
  * Assign Region and Regcat
  ************************************************************************;
  REGION  = "Benchmark";
  REGCAT  = "Benchmark";

  ************************************************************************
  * Assign benefit and benefit type
  ************************************************************************;
  IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
  ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
  ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
  /*ELSE IF &CNUM = 4  THEN BENEFIT = "Customer Service";*/
  ELSE IF &CNUM = 6  THEN BENEFIT = "Claims Processing";
  ELSE IF &CNUM = 7  THEN BENEFIT = "Health Care";
  ELSE IF &CNUM = 8 THEN BENEFIT = "Health Plan";
  ELSE IF &CNUM = 9  THEN BENEFIT = "Primary Care Manager";
  ELSE IF &CNUM = 10  THEN BENEFIT = "Specialty Care";

  BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
  TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
   IF &CNUM<7 THEN DO;
      IF X=&GNUM THEN DO;
  ************************************************************************
  * Assign composite score and SEMEAN
  ************************************************************************;
         SCORE = TOTADJ;
         SEMEAN = SQRT(SDE**2+SESX**2);

  ************************************************************************
  * Output composite score record for each REGION
  ************************************************************************;
         OUTPUT;
      END;
   END;
  ************************************************************************
  * Now, output the individual score records
  ************************************************************************;
  IF &NVAR GT 1|&CNUM>6 THEN DO;
     ARRAY ITEMS &VARS;
     ARRAY SE    &SE;
     LENGTH NAME $8;
     DO I = 1 TO DIM(ITEMS); DROP I;
        CALL VNAME(ITEMS(I),NAME);
        NAME = SUBSTR(NAME,1,6);
        SCORE  = ITEMS(I);
        SEMEAN = SQRT(SE(I)**2+SESX**2);
        IF &NVAR GT 1 THEN
        BENTYPE = PUT(NAME,$BENTYPF.);
        TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
       IF COMPRESS(UPCASE(NAME))=COMPRESS(UPCASE(VAR)) THEN OUTPUT;
     END;
   END;

  KEEP MAJGRP
      REGION
      REGCAT
      BENTYPE
      BENEFIT
      TIMEPD  /*MJS 07/03/03 Added*/
      SEMEAN
      SCORE
```

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```
        SIG
      ;
   RUN;

%MEND;


******************************************************************************
******************************************************************************
* Process each of the 8 Groups.
******************************************************************************
******************************************************************************;
%MACRO DOIT;
%DO I = 1 %TO 8;
   ******************************************************************************
   * COMPOSITE # 1.
   * GETTING NEEDED CARE VARIABLES.
   ******************************************************************************;
   %PROCESS(CNUM=1, GNUM=&I, NVAR=2, VARS=R09013_&I R09027_&I,
        SE=S_R09013 S_R09027);


   ******************************************************************************
   * COMPOSITE # 2.
   * GETTING CARE QUICKLY VARIABLES.
   ******************************************************************************;
   %PROCESS(CNUM=2, GNUM=&I, NVAR=2, VARS=R09022_&I R09019_&I,
        SE=S_R09022 S_R09019);


   ******************************************************************************
   * COMPOSITE # 3.
   * HOW WELL DOCTORS COMMUNICATE.
   ******************************************************************************;
   %PROCESS(CNUM=3, GNUM=&I, NVAR=4, VARS=R09033_&I R09034_&I R09035_&I R09036_&I,
        SE=S_R09033 S_R09034 S_R09035 S_R09036);


   ******************************************************************************
   * COMPOSITE # 4.
   * COURTEOUS AND HELPFUL OFFICE STAFF.
   ******************************************************************************;
*    %PROCESS(CNUM=4, GNUM=&I, NVAR=2, VARS=R09031_&I R09032_&I, SE=S_R09031 S_R09032);


   ******************************************************************************
   * COMPOSITE # 5.
   * CUSTOMER SERVICE.
   ******************************************************************************;
*    %PROCESS(CNUM=5, GNUM=&I, NVAR=3, VARS=R09043_&I R09045_&I R09047_&I,
        SE=S_R09043 S_R09045 S_R09047);


   ******************************************************************************
   * COMPOSITE # 6.
   * CLAIMS PROCESSING.
   ******************************************************************************;
   %PROCESS(CNUM=6, GNUM=&I, NVAR=2, VARS=R09040_&I R09041_&I, SE=S_R09040 S_R09041);


   ******************************************************************************
   * INDIVIDUAL # 1.
   * RATING OF ALL HEALTH CARE: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=7, GNUM=&I, NVAR=1, VARS=R09037_&I, SE=S_R09037);


   ******************************************************************************
   * INDIVIDUAL # 2.
   * RATING OF HEALTH PLAN: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=8, GNUM=&I, NVAR=1, VARS=R09048_&I, SE=S_R09048);


   ******************************************************************************
   * INDIVIDUAL # 3.
   * RATING OF PERSONAL DOCTOR: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=9, GNUM=&I, NVAR=1, VARS=R09009_&I, SE=S_R09009);


   ******************************************************************************
   * INDIVIDUAL # 4.
   * SPECIALTY CARE: 0 - 10.
```

```
       ********************************************************************;
       %PROCESS(CNUM=10, GNUM=&I, NVAR=1, VARS=R09015_&I, SE=S_R09015);
   %END;
   %MEND DOIT;
   %DOIT;


   *****************************************************************************
   *****************************************************************************
   * STACK up all of the files into one final output dataset.
   *****************************************************************************
   ****************************************************************************;
   DATA OUT.BENCHA04;
       SET COMP1_1   COMP1_2   COMP1_3   COMP1_4   COMP1_5   COMP1_6   COMP1_7   COMP1_8
           COMP2_1   COMP2_2   COMP2_3   COMP2_4   COMP2_5   COMP2_6   COMP2_7   COMP2_8
           COMP3_1   COMP3_2   COMP3_3   COMP3_4   COMP3_5   COMP3_6   COMP3_7   COMP3_8
         /*COMP4_1   COMP4_2   COMP4_3   COMP4_4   COMP4_5   COMP4_6   COMP4_7   COMP4_8
           COMP5_1   COMP5_2   COMP5_3   COMP5_4   COMP5_5   COMP5_6   COMP5_7   COMP5_8*/
           COMP6_1   COMP6_2   COMP6_3   COMP6_4   COMP6_5   COMP6_6   COMP6_7   COMP6_8
           COMP7_1   COMP7_2   COMP7_3   COMP7_4   COMP7_5   COMP7_6   COMP7_7   COMP7_8
           COMP8_1   COMP8_2   COMP8_3   COMP8_4   COMP8_5   COMP8_6   COMP8_7   COMP8_8
           COMP9_1   COMP9_2   COMP9_3   COMP9_4   COMP9_5   COMP9_6   COMP9_7   COMP9_8
           COMP10_1 COMP10_2 COMP10_3 COMP10_4 COMP10_5 COMP10_6 COMP10_7 COMP10_8
       ;
       IF SCORE = . THEN DELETE;
   RUN;
   TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
   TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
   TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
   TITLE4 "Program Outputs: BENCHA04.SAS7BDAT - Combined Benchmark Scores Database in WEB
layout";

   PROC CONTENTS; RUN;

   PROC FREQ;
   TABLES TIMEPD BENEFIT BENTYPE MAJGRP REGION REGCAT
          REGION*REGCAT
         /MISSING LIST;
   RUN;
```

```
*****************************************************************************
*
* PROGRAM:  BENCHA03.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Adjust Adult CAHPS Benchmarks
*
* WRITTEN:  June 2000 BY ERIC SCHONE
*
* INPUTS:   1) BENCHA02.SD2 - 2005 Adult CAHPS Questions Renamed to be
*              consistent with the 2006 MPR DOD Survey.
*           2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
*
* OUTPUTS:  1) Benchmark Composite Scores Data Sets
*
* MODIFIED: 1) Nov 2000 BY ERIC SCHONE - Output permanent datasets with
*              scores and standard errors and process the rest of the
*              composites and ratings.
*           2) Dec 2000 BY KEITH RATHBUN - Update variable names for
*              Q1 2000 Survey.
*           3) Jan 2002 BY KEITH RATHBUN - Updated to run under SAS
*              version 8 (changed INTERCEP to INTERCEPT).
*           4) Apr 2002 BY MIKE SCOTT - Updated variable names for Q1
*              2002 Survey.
*           5) Jul 2002 BY MIKE SCOTT - Changed R00077 to R04075, since
*              H02077 (health status) is back and was renamed to R04075
*              in HSC022_1.sd2.
*           6) Mar 2003 BY MIKE SCOTT - Updated for 2003 survey.
*           7) May 2003 BY MIKE SCOTT - Changed ac03_01 to ac03_02.
*           8) Jun 2003 BY MIKE SCOTT - Updated for Q2 2003.
*           9) Oct 2003 BY MIKE SCOTT - Updated for Q3 2003.
*           10) Mar 2004 BY MIKE SCOTT - Updated for Q1 2004.
*           11) April 2004 BY KEITH RATHBUN - Updated to use the CAHPS 2003
*               variable ac03_03.
*           12) June 2004 BY REGINA GRAMSS - Updated to use for Q2 2004
*           13) Sept 2004 BY REGINA GRAMSS - Update for Q3 2004
*           14) May 2005 BY REGINA GRAMSS - Updated for Q1 2005
*           15) Jul 2005 BY REGINA GRAMSS - Updated for Q2 2005
*           16) Oct 2005 BY REGINA GRAMSS - Updated for Q3 2005
*           17) Dec 2005 BY REGINA GRAMSS - Updated for Q4 2005
*           18) 03/24/2006 BY KEITH RATHBUN, Updated for Q2 FY 2006.
*               Changed variable names to match the 2006 HCSDB survey.
*           19) 07/12/2006 by Justin Oh - Updated for Q3 FY 2006.
*           20) 10/03/2006 by Justin Oh - Changed libname in2 for Q4FY2006.
*               Change the INCLUDE path to CONVERT.sas file.
*           21) 12/18/2006 by Justin Oh - Changed libname in2 for Q1FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           22) 04/05/2007 by Justin Oh - Changed libname in2 for Q2FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           23) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
*               ReportCards OR PurchasedReportCards.
*           24) 04/05/2007 by Keith Rathbun - Changed libname in2 for Q3FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           25) 09/04/2007 by Justin Oh - Changed libname in2 for Q4FY2007.
*               Change the INCLUDE path to CONVERT.sas file.
*           26) 01/10/2008 BY KEITH RATHBUN, Updated for Q1 FY 2008.
*               Changed variable names to match the 2008 HCSDB survey.
*           27) 04/11/2008 by Justin Oh - Changed libname in2 for Q2FY2008.
*               Change the INCLUDE path to CONVERT.sas file.
*           28) 06/13/2008 by Keith Rathbun - Changed libname in2 for Q3FY2008.
*               Change the INCLUDE path to CONVERT.sas file.
*           29) April 10, 2009 by Mike Rudacille, changed variable names to reflect
*               modifications to beneficiary reports necessary for V4
*           30) Sept 30, 2009 by Mike Rudacille - Changed libname in2 for Q4FY2009.
*               Change the INCLUDE path to CONVERT.sas file.
*                  31) October 9, 2009 by Emma Ernst- Updated for 2009 database
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
* 2) This program will generate the input for BENCHA04.SAS.
*
```

```
      *****************************************************************************
      * Assign data libraries and options
      *****************************************************************************;

      /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
      %LET RCTYPE = ReportCards;

      *libname in          "..\..\..\..\Q2FY2009\Programs\Benchmark\Data"; /*Use BENCHA02.sas7bdat
from Q2fy2009*/
      libname in        "..\..\..\Q1FY2009t\Programs\BenchmarkV4\Data";
      libname in2       "..\&RCTYPE.V4\CAHPS_Adult2009\Data";
      libname out       "Data";
      LIBNAME LIBRARY "..\..\..\DATA\FMTLIB";

      %let wgt=CFW_V4;

      OPTIONS MLOGIC MPRINT NOCENTER MERGENOBY=WARN LS=132 PS=79;


      %macro comb(f,t,q,l);

      proc summary data=&f;
       var &t;
       where &q~=.;
       weight &wgt;
       output out=temp mean=&t;
      run;

      data temp;
       set temp;
       array old &t;
       call symput('z',left(dim(old)));
      run;

      data temp(drop=_type_ &t);
       set temp;
       array old &t;
       array new var1-var&z;
        do i=1 to &z;
         new(i)=old(i);
        end;
      run;

      data &q._&l;
       merge temp c_&q;
       array coeffs &t;
       array means var1-var&z;
        DO I = 1 TO DIM(COEFFS);
         IF COEFFS(I) = . THEN COEFFS(I) = 0;
         IF MEANS(I) = . THEN MEANS(I) = 0;
         ADJUST + ( COEFFS(I) * MEANS(I) );
        END;

       ADJUST = ADJUST + intercept;
       &q._&l=adjust;

      run;

      %mend comb;

      %macro adjust(x,y);



      proc summary data=setup;
      where &x>.;
       class product;

       output out=count;
      run;

      data count count2(rename=(_freq_=denom));
       set count;
       if _type_=0 then output count2;
```

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```
 else output count;
run;

data count(keep=pweight product);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by product;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
  if old(i)=. then
   old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;

proc sort data=r_&x; by product;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST product / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;
```

```
%mend adjust;

/* adjust all the variables */

%macro comp(compno,a,b,c,d);
 %if &a~= %then %do;
  %let n=r_&a;
  %let m=s_&a;
  %do i=1 %to 8;
   %let p&i=&a._&i;
  %end;
  %let grpnum=1;
   proc sort data=r_&a;
    by mpid;
   run;
 %end;
 %if &b~= %then %do;
  %let n=%str(&n r_&b);
  %let m=%str(&m s_&b);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &b._&i);
  %end;
  %let grpnum=2;
   proc sort data=r_&b;
    by mpid;
   run;
 %end;
 %if &c~= %then %do;
  proc sort data=r_&c;
   by mpid;
  run;
  %let grpnum=3;
  %let n=%str(&n r_&c);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &c._&i);
  %end;
  %let m=%str(&m s_&c); %end;

  %if &d~= %then %do;
   proc sort data=r_&d;
    by mpid;
   run;
   %let grpnum=4;
   %let n=%str(&n r_&d);
    %do i=1 %to 8;
     %let p&i=%str(&&p&i &d._&i);
    %end;

    %let m=%str(&m s_&d);
  %end;

data infile;
 merge &n;
 by mpid;
run;

proc corr outp=outf noprint;
 var &n;
 weight pweight;
run;

data final;
 if _n_=1 then do;
  %if &a~= %then %do;
   set s_&a;
  %end;
  %if &b~= %then %do;
   set s_&b;
  %end;
  %if &c~= %then %do;
   set s_&c;
  %end;
  %if &d~= %then %do;
```

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```
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
   %do i=1 %to &grpnum;
    if _name_="r_&&s&i" then
    sde=sde+r_val(i)*s_&&s&i*s_val(i);
   %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
   merge &&p&i;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
   totadj=totadj/&grpnum;
   output;
 end;
run;

data out&compno._&i;
 merge output temp;
run;

data out.comp&compno._&i;
   merge out&compno._&i
         sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by product;
run;
data setup;
set setup;
if ^(model in (2,4));
if disp in ('M10','I10')  ;   ***KRR 04/19/04 Changed _02 to _03;
data setup;
 set setup; by product;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;
```

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```
      if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
 if agegroup<6;


run;
%INCLUDE "..\REPORTCARDSV4\CAHPS_Adult2009\CONVERT.SAS";

%CONT2(DSN=SETUP, NUM=4,  Y=R09018 R09047 R09027 R09031);
%CONT3(DSN=SETUP, NUM=12, Y=R09007 R09010 R09029 R09033
                           R09021 R09022 R09023 R09024
                           R09040 R09041 R09045 R09046);
/* GETTING NEEDED CARE */
%adjust(R09029,age1824 age2534 age3544 age4554  R09063);
%adjust(R09033,age1824 age2534 age3544 age4554  R09063);
%comp(1,R09029,R09033);

/* GETTING NEEDED CARE QUICKLY */
%adjust(R09007,age1824 age2534 age3544 age4554  R09063);
%adjust(R09010,age1824 age2534 age3544 age4554  R09063);
%comp(2,R09007,R09010);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(R09021,age1824 age2534 age3544 age4554  R09063);
%adjust(R09022,age1824 age2534 age3544 age4554  R09063);
%adjust(R09023,age1824 age2534 age3544 age4554  R09063);
%adjust(R09024,age1824 age2534 age3544 age4554  R09063);
%comp(3,R09021,R09022,R09023,R09024);

/* CUSTOMER SERVICE */
%adjust(R09040,age1824 age2534 age3544 age4554  R09063);
%adjust(R09041,age1824 age2534 age3544 age4554  R09063);
%comp(4,R09040,R09041);

/* CLAIMS PROCESSING */
%adjust(R09045,age1824 age2534 age3544 age4554  R09063);
%adjust(R09046,age1824 age2534 age3544 age4554  R09063);
%comp(5,R09045,R09046);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(R09018,age1824 age2534 age3544 age4554  R09063);
%comp(6,R09018);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(R09047,age1824 age2534 age3544 age4554  R09063);
%comp(7,R09047);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(R09027,age1824 age2534 age3544 age4554  R09063);
%comp(8,R09027);

/* SPECIALTY CARE */
%adjust(R09031,age1824 age2534 age3544 age4554  R09063);
%comp(9,R09031);
```

```
*******************************************************************************
*
* PROGRAM:  SAS2STATA_Grps.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Convert the CAHPS BENCHA02 and GROUP1-8 Files to STATA format
*
* WRITTEN:  01/11/2008 BY KEITH RATHBUN
*
* INPUTS:   1) BENCHA02.sas7bdat - CAHPS Benchmark Scores Database
*              GROUPi.sas7bdat - Group Files created by STEP1.SAS
*                       (where i = 1 -8 = group number)
*
* OUTPUTS:  1) BENCHA02.dta - CAHPS Benchmark Scores Database - STATA format
*              GROUPi.dta - Group Files created by STEP1.SAS - STATA format
*                       (where i = 1 -8 = group number)
*
* MODIFIED:
*
* NOTES:
*
*******************************************************************************
* Assign data libraries and options
*******************************************************************************;
%LET YEAR = 2009;
LIBNAME   INBENCH    "..\..\..\..\Q1FY2009t\Programs\BenchmarkV4\Data";                /*Use
BENCHA02.sas7bdat from Q1fy2009t*/
LIBNAME INGROUP "..\..\ReportCardsV4\cahps_adult&YEAR.\data";

*******************************************************************************
* Convert CAHPS BENCHA02 to STATA format.
*******************************************************************************;
PROC EXPORT
   DATA = INBENCH.BENCHA02
   OUTFILE = "BENCHA02.DTA"
   DBMS = DTA
   REPLACE;
RUN;

*******************************************************************************
* Convert SAS Group files to STATA format.
*******************************************************************************;
%MACRO CONVERT2STATA;
   %DO I = 1 %TO 8;
       PROC EXPORT
           DATA = INGROUP.GROUP&I
           OUTFILE = "GROUP&I..DTA"
           DBMS = DTA
           REPLACE;
       RUN;
   %END;
%MEND CONVERT2STATA;

%CONVERT2STATA;
```

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```
/*
   Program: vartest.do
   Author:  Eric Schone
   Modified: 1) 11/15/2006 Justin Oh, Added global variable "path"
                for assigning folder directory.
             2) 06/22/2009 Keith Rathbun, Changed fwrwt_v4 back to fwrwt
                and updated path for q3fy2009.

   WARNING - MUST EDIT THE GLOBAL PATH FOR EACH REPORTING PERIOD
*/


global path "L:\2009\Programs\BenchmarkV4"


program define initial
version 7.0

local i=1
while `i'<9{

gen str8 var=" "
gen se=.

saveold "$path\apredtest\projerr`i'",replace

clear
 local i=`i'+1
}
end
program define stdlist1
version 7.0
local varlist required existing
parse "`*'"
while "`1'"~=""{

use "$path\apredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=10  if 8<=`1' & `1'<=10
replace `1'=0 if `1'~=. & `1'<8
replace `1'=`1'/10
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
```

```
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063

local i=1
while `i'<9{
use "$path\apredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=cfw_v4]
predict se, stdp
keep se
gen str8 var="`1'"
append using "$path\apredtest\projerr`i'"
saveold "$path\apredtest\projerr`i'",replace

local i=`i'+1
}
macro shift
}
end
program define stdlist2
version 7.0
local varlist required existing
parse "`*'"

while "`1'"~=""{

use "$path\apredtest\bencha02",clear
keep if model~=2 & model ~=4
keep if disp=="M10"|disp=="T10"




 gen ageund18=0 if agegroup~=.
gen age1824=0 if agegroup~=.
gen age2534=0 if agegroup~=.
gen age3544=0 if agegroup~=.
gen age4554=0 if agegroup~=.
 gen age5564=0 if agegroup~=.
gen age6574=0 if agegroup~=.

replace ageund18 = 1      if agegroup==0
replace age1824  = 1 if agegroup==1
replace age2534  = 1 if agegroup==2
replace age3544  = 1 if agegroup==3
replace age4554  = 1 if agegroup==4
replace age5564  = 1 if agegroup==5
replace age6574  = 1 if agegroup==6
keep if agegroup<6
replace `1'=0 if `1'~=. & `1'<3
replace `1'=1 if `1'>=2
egen coun=count(`1'), by(product)
gen wt=1/coun
svyset strata product
svyset pweight coun

egen ct=count(`1'*age1824*r09063), by(product)
keep if ct>1
drop ct


svyreg `1' age1824 age2534 age3544 age4554 age5564 r09063
local i=1
while `i'<9{
use "$path\apredtest\group`i'",clear
collapse (mean) age1824 age2534 age3544 age4554 age5564 r09063 [aw=cfw_v4]
predict se, stdp
keep se
gen str8 var="`1'"
```

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```
append using "$path\apredtest\projerr`i'"
saveold "$path\apredtest\projerr`i'", replace
local i=`i'+1
}
macro shift
}
end


set more 1

set mem 100m

log using "$path\apredtest\varlog",replace
initial

use "$path\apredtest\bencha02",clear
stdlist1 r09018 r09047 r09027 r09031
use "$path\apredtest\bencha02",clear

stdlist2 r09029 r09033  r09007 r09010  r09040 r09041 r09021 r09022 r09023 r09024 r09045
r09046

log close
```

G.12.E.3 BENCHMARKV4\APREDTEST\STATA2SAS_PROJ.SAS - CONVERTS THE PREDICTED ERRORS FROM STATA TO SAS - ANNUAL-V4.

```
*****************************************************************************
*
* PROGRAM:  STATA2SAS_Proj.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the PROJERR1-8 Files to SAS format
*
* WRITTEN:  01/11/2008 BY KEITH RATHBUN
*
* INPUTS:   1) PROJERRi.DTA - PROJERR Files created by VARTEST.DO
*                           (where i = 1 -8 = group number)
*
* OUTPUTS:  1) PROJERRi.sas7bdat - PROJERR Files created by VARTEST.DO - SAS format
*                           (where i = 1 -8 = group number)
*
* MODIFIED:
*
* NOTES:
*
*****************************************************************************
* Assign data libraries and options
****************************************************************************;
LIBNAME OUT ".";

*****************************************************************************
* Convert the PROJERR1-8 Files to SAS format
****************************************************************************;
%MACRO CONVERT2SAS;
    %DO I = 1 %TO 8;
        PROC IMPORT
            DATAFILE="projerr&i..dta"
            OUT=OUT.projerr&i
            DBMS=dta
            REPLACE;
        RUN;
    %END;
%MEND CONVERT2SAS;

%CONVERT2SAS;
```

```
/*****************************************************************
/*
/*  Project:  HCSDB Adult Report Cards
/*  Program:  PREDCOMP.SAS
/*  Purpose:  Adult Report Card
/*  Requires programs STEP1Q and STEP2Q.SAS
/*
/*****************************************************************/
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=NO;
libname in  ".";


 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,VAR5=,QCOUNT=);
 %do i=1 %to 8;
  data temp&i(keep=x se);
        set in.projerr&i end=last;
        variance=se**2;
        %do j=1 %to &qcount;
         if upcase(var)="&&var&j" then t_var+variance;
        %end;
        if last then do;
         se=t_var**.5/&qcount;
         x=&i;
          output;
        end;
  %end;
  data in.comp&compos;
    set temp1 temp2 temp3 temp4 temp5 temp6 temp7 temp8;
  run;



 %MEND COMPOSIT;

 *------------------------------------;
 *-      set the parameters here    -;
 *------------------------------------;
 ***********************************;
 *  call the macro for each composite;
 ***********************************;
 %COMPOSIT (type=R,compos=1,var1=R09029,var2=R09033,qcount=2);
 %COMPOSIT (type=R,compos=2,var1=R09007,var2=R09010,qcount=2);
 %COMPOSIT (type=R,compos=3,var1=R09021,var2=R09022,var3=R09023,var4=R09024,qcount=4);
 %COMPOSIT (type=R,compos=4,var1=R09040,var2=R09041,qcount=2);
 %COMPOSIT (type=R,compos=5,var1=R09045,var2=R09046,qcount=2);
```

G.12.F   BENCHMARKV4\BENCHA04.SAS - CONVERT THE BENCHMARK SCORES DATABASE INTO THE WEB LAYOUT - ANNUAL-V4.

```
****************************************************************************
*
* PROGRAM:  BENCHA04.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
* PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
*
* WRITTEN:  06/01/2000 BY KEITH RATHBUN
*
* INPUTS:   1) Benchmark data sets with adjusted scores
*              (COMPn_i.SD2 where n = composite number and i = group number)
*
* OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* MODIFIED: 1) Dec 2000 bY Keith Rathbun: Updated variable names for
*              Q1 2000 Survey.  For the quarterly survey group 8 (all benes)
*              is being used as the benchmark for all groups (1-8).  Thus,
*              this group is copied and output to each of the other 7 groups.
*           2) 01/23/2002 by Mike Scott: Updated variable names to be consistent
*              with 2000 survey.
*           4) 04/15/2002 by Mike Scott - Updated variable names for
*              Q1 2002 Survey.
*           5) 03/21/2003 by Mike Scott - Updated for 2003 survey.
*           6) 06/26/2003 by Mike Scott - Updated for Q2 2003.
*           7) 07/03/2003 by Mike Scott - Added TIMEPD variable to be set to the period
*              or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
*              setting to 'Composite'.
*           8) 07/18/2003 by Mike Scott - Added TIMEPD to FREQ.
*           9) 10/21/2003 by Mike Scott - Updated for Q3 2003.
*          10) 03/23/2004 by Mike Scott - Updated for Q1 2004.
*          11) 06/15/2004 by Regina Gramss - Updated for Q2 2004.
*          12) 09/2004    by Regina Gramss - Updated for Q3 2004.
*          13) 05/2005    by Regina Gramss - Updated for Q1 2005.
*          14) 10/2005    by Regina Gramss - Updated for Q3 2005.
*          15) 03/24/2006 by Keith Rathbun - Updated for Q2 FY 2006.
*              Added MACRO loop to process the 8 groups.
*          16) 10/03/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q3.
*          17) 12/18/2007 by Justin Oh - Updated BENTYPE composite year to 2006 Q4.
*          18) 04/05/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q1.
*           19) 04/05/2007 by Justin Oh - Updated LIBNAME IN2 to be used for purchase RC
programs.
*          20) 09/04/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q3.
*          21) 01/10/2008 by Keith Rathbun - Updated for Q1 FY 2008.
*          22) 04/11/2008 by Justin Oh - Updated BENTYPE composite year to 2008 Q1.
*          23) 06/13/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q2.
*          24) 09/29/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q3.
*          25) 04/10/2009 by Mike Rudacille - Changed variable names to reflect
*              modifications to beneficiary reports necessary for V4
*          26) 09/30/2009 by Mike Rudacille - Updated BENTYPE composite year to 2009 Q3.
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - BENCHA01.SAS - Extract Benchmark variables
*    - BENCHA02.SAS - Recode Benchmark variables
*    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
*
* 2) The output file (BENCHA04.SAS7BDAT) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
****************************************************************************
* Assign data libraries and options
****************************************************************************;
LIBNAME IN  "DATA";
LIBNAME IN2 "apredtest";
LIBNAME OUT "DATA";
LIBNAME LIBRARY  "..\..\..\DATA\FMTLIB";
```

```
OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

*****************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*****************************************************************************;
%INCLUDE "..\LOADWEBV4\LOADCAHQ.INC";

*****************************************************************************
*****************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* _____
*    Adjusted Score           Definitions
*    Group Number
* _____
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004_R>=7
* 2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004_R>=7
* 3. Enrollees w/civ PCM       XENR_PCM = 3        AND H09004_R>=7
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              BFGROUPP = 1
* 6. Active duty dependents    BFGROUPP = 2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
*****************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
*****************************************************************************
* Assign value for BENTYPE composite year
*****************************************************************************;
%LET YEAR = "2009"; * Note that this is based on Calendar Year here;

*****************************************************************************
* Convert benchmark scores datasets into WEB layout.
*****************************************************************************;
%IF &CNUM<6 %THEN %DO;

  DATA INP;
    SET IN2.COMP&CNUM;
     WHERE X=&GNUM;



   DATA INP;
    SET INP  IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;
%ELSE %DO;

   DATA INP;
    SET IN2.PROJERR&GNUM;
    RENAME SE=SESX;
RUN;
%END;


   DATA COMP&CNUM._&Gnum;
      SET INP;
     IF _N_=1 THEN
     SET IN.COMP&CNUM._&GNUM;
      LENGTH MAJGRP  $30;
      LENGTH REGION  $25;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;
```

```
        LENGTH TIMEPD  $35;   ***MJS 07/03/03 Added line;

     ************************************************************************
     * For now, assign SIG = 0
     ************************************************************************;
     SIG = 0;

     ************************************************************************
     * Assign major group
     ************************************************************************;
     MAJGRP  = PUT(&Gnum,MAJGRPF.);

     ************************************************************************
     * Assign Region and Regcat
     ************************************************************************;
     REGION  = "Benchmark";
     REGCAT  = "Benchmark";

     ************************************************************************
     * Assign benefit and benefit type
     ************************************************************************;
     IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
     ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
     ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
     ELSE IF &CNUM = 4  THEN BENEFIT = "Customer Service";
     ELSE IF &CNUM = 5  THEN BENEFIT = "Claims Processing";
     ELSE IF &CNUM = 6  THEN BENEFIT = "Health Care";
     ELSE IF &CNUM = 7  THEN BENEFIT = "Health Plan";
     ELSE IF &CNUM = 8  THEN BENEFIT = "Primary Care Manager";
     ELSE IF &CNUM = 9  THEN BENEFIT = "Specialty Care";

     BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
     TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
      IF &CNUM<6 THEN DO;
         IF X=&GNUM THEN DO;
     ************************************************************************
     * Assign composite score and SEMEAN
     ************************************************************************;
           SCORE = TOTADJ;
           SEMEAN = SQRT(SDE**2+SESX**2);

     ************************************************************************
     * Output composite score record for each REGION
     ************************************************************************;
           OUTPUT;
         END;
      END;
     ************************************************************************
     * Now, output the individual score records
     ************************************************************************;
     IF &NVAR GT 1|&CNUM>5 THEN DO;
        ARRAY ITEMS &VARS;
        ARRAY SE    &SE;
        LENGTH NAME $8;
        DO I = 1 TO DIM(ITEMS); DROP I;
           CALL VNAME(ITEMS(I),NAME);
           NAME = SUBSTR(NAME,1,6);
           SCORE  = ITEMS(I);
           SEMEAN = SQRT(SE(I)**2+SESX**2);
           IF &NVAR GT 1 THEN
           BENTYPE = PUT(NAME,$BENTYPF.);
           TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
          IF COMPRESS(UPCASE(NAME))=COMPRESS(UPCASE(VAR)) THEN OUTPUT;
        END;
     END;

 KEEP MAJGRP
      REGION
      REGCAT
      BENTYPE
      BENEFIT
      TIMEPD   /*MJS 07/03/03 Added*/
      SEMEAN
      SCORE
```

```
        SIG
      ;
   RUN;

%MEND;


******************************************************************************
******************************************************************************
* Process each of the 8 Groups.
******************************************************************************
******************************************************************************;
%MACRO DOIT;
%DO I = 1 %TO 8;
   ******************************************************************************
   * COMPOSITE # 1.
   * GETTING NEEDED CARE VARIABLES.
   ******************************************************************************;
   %PROCESS(CNUM=1, GNUM=&I, NVAR=2, VARS=R09029_&I R09033_&I,
         SE=S_R09029 S_R09033);


   ******************************************************************************
   * COMPOSITE # 2.
   * GETTING CARE QUICKLY VARIABLES.
   ******************************************************************************;
   %PROCESS(CNUM=2, GNUM=&I, NVAR=2, VARS=R09007_&I R09010_&I,
         SE=S_R09007 S_R09010);


   ******************************************************************************
   * COMPOSITE # 3.
   * HOW WELL DOCTORS COMMUNICATE.
   ******************************************************************************;
   %PROCESS(CNUM=3, GNUM=&I, NVAR=4, VARS=R09021_&I R09022_&I R09023_&I R09024_&I,
         SE=S_R09021 S_R09022 S_R09023 S_R09024);


   ******************************************************************************
   * COMPOSITE # 4.
   * CUSTOMER SERVICE.
   ******************************************************************************;
   %PROCESS(CNUM=4, GNUM=&I, NVAR=2, VARS=R09040_&I R09041_&I,
         SE=S_R09040 S_R09041);


   ******************************************************************************
   * COMPOSITE # 5.
   * CLAIMS PROCESSING.
   ******************************************************************************;
   %PROCESS(CNUM=5, GNUM=&I, NVAR=2, VARS=R09045_&I R09046_&I,
         SE=S_R09045 S_R09046);


   ******************************************************************************
   * INDIVIDUAL # 1.
   * RATING OF ALL HEALTH CARE: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=6, GNUM=&I, NVAR=1, VARS=R09018_&I, SE=S_R09018);


   ******************************************************************************
   * INDIVIDUAL # 2.
   * RATING OF HEALTH PLAN: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=7, GNUM=&I, NVAR=1, VARS=R09047_&I, SE=S_R09047);


   ******************************************************************************
   * INDIVIDUAL # 3.
   * RATING OF PERSONAL DOCTOR: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=8, GNUM=&I, NVAR=1, VARS=R09027_&I, SE=S_R09027);


   ******************************************************************************
   * INDIVIDUAL # 4.
   * SPECIALTY CARE: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=9, GNUM=&I, NVAR=1, VARS=R09031_&I, SE=S_R09031);
%END;
%MEND DOIT;
%DOIT;
```

```
****************************************************************************
****************************************************************************
* STACK up all of the files into one final output dataset.
****************************************************************************
****************************************************************************;
/*Comp4 was from questions 40 and 41 and there is no 2007 equivalent*/
DATA OUT.BENCHA04;
   SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
       COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
       COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
       COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
       COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
       COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
       COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
       COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
       COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
   ;
   IF SCORE = . THEN DELETE;
RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
TITLE4 "Program  Outputs:  BENCHA04.SAS7BDAT  -  Combined  Benchmark  Scores  Database  in  WEB
layout";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES TIMEPD BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

```
*******************************************************************
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   PRVCOMPQ.SAS
*  Author:    Chris Rankin
*  Date:      12/22/2000
*  Modified:  4/19/2001 By Keith Rathbun: Restrict population to
*             xins_cov in(1,2,3,6).  Use POSTSTR instead of
*             adj_cell.
*  Modified:  10/25/01 By Daniele Beahm: Because no poststratification
*             was done for q3 2000, changed POSTSTR back to ADJ_CELL.
*             04/09/02 modified macros the first three macros to create
*             temporary datasets (instead of writing permanent datasets)
*             07/15/02 By Mike Scott: Changed HCS021 to HCS022 for Q2 2002.
*             01/12/03 By Mike Scott: Changed ADJ_CELL to COM_SAMP.
*             03/21/03 By Mike Scott: Changed HCS024 to HCS031 for Q2 2002.
*             04/01/03 By Mike Scott: Replaced HP_FLU with HP_CHOL.
*             04/30/03 By Mike Scott: Changed COM_SAMP to ADJ_CELL.  Changed
*             CMPNUM1 from 4 to 5 and CMPNUM2 from 4 to 3.
*             06/13/03 By Eric Schone.  Changed composite mean & std err calculations
*             to use weights from 2000 input data.
*             07/23/03 By Mike Scott: Removed ..\PROGRAMS\ from INCLUDE.
*             10/21/03 By Mike Scott: Updated for Q3 2003.
*             01/07/04 By Mike Scott: Updated for Q4 2003.
*             02/02/04 By Mike Scott: Set PRVVAR6, PRVVAR7, and PRVVAR8 in DATA NORMDATA
*             to H04023, H04020, and H04031.
*             03/24/04 By Mike Scott: Updated for Q1 2004.
*             04/09/04 By Keith Rathbun: Added Service Affiliation variables to
*             accomodate the consumer watch.
*             06/22/04 By Regina Gramss: Updated for Q2 2004.
*             09/2004  By Regina Gramss: Updated for Q3 2004, to use XTNEXREG
*                                        vs. XREGION
*             01/2005 By Regina Gramss: Updated to create "Last USA_q" for
*                     Q4 2004, replace XTNEXREG with XSERVREG
*             04/2005 By Regina Gramss: Updated for Q1 2005 (update 2004 field names)
*             07/2005 By Regina Gramss: updated for Q2 2005
*             10/2005 By Regina Gramss: Updated for Q3 2005
*             12/2005 By Regina Gramss: Updated for Q4 2005
*             03/24/2006 By Keith Rathbun: Updated for Q2 FY 2006.  Changed reference
*             to ADJ_CELL in 2006 data to be STRATUM.
*             07/2006 By Justin Oh: updated for Q2 FY 2006
*             08/22/2006 By Justin Oh
*                     Changed XSERVREG for Overseas
*                     Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
*                             IF XINS_COV IN (3)     THEN GROUP4 = 1
*                             Since only XINS_COV IN (1,2,3,6) is kept.
*                     Create XOUSA for 2005 data.
*                     Added XREGION in the keep statement for NORMDATA.
*             10/04/2006 By Justin Oh Updated %LET INDATA and YRDATA.
*             11/15/2006 By Justin Oh Added FIELDAGE in 4 keep statements
*             12/22/2006 By Justin Oh Updated %LET INDATA and YRDATA HCS071_1.
*             04/05/2007 By Justin Oh Updated %LET INDATA and YRDATA HCS072_1.
*             04/05/2007 By Justin Oh Added conditions for RC types
*                     ReportCards OR PurchasedReportCards.
*             05/10/2007 By Justin Oh, Added codes, variables for new reservists logic for
*                     both Norm and Quarter datasets.
*             05/15/2007 By Justin Oh, Changed XINS_COV to NXNS_COV to assign
*                     Groups 1,3, and 4 for new reservists logic.
*             07/30/2007 By Justin Oh, Added added DBENCAT conditions to assign
*                     Groups All, 4, 5, and 6.
*             09/04/2007 By Justin Oh Updated %LET INDATA and YRDATA HCS074_1.
*             01/10/2008 By Keith Rathbun, Updated %LET INDATA and YRDATA HCS081_1.
*                     Also changed H07 variable names to be H08 to match 2008 survey
*             04/11/2008 By Justin Oh Updated %LET INDATA and YRDATA HCS082_1.
*             06/13/2008 By Keith Rathbun Updated %LET INDATA and YRDATA HCS083_1.
*             04/20/2009 By Mike Rudacille Changed RCTYPE and certain variable names for
*                     transition to V4 questionnaire.
*             06/22/2009 By Keith Rathbun Updated %LET INDATA and YRDATA HCS093_1.
*             09/30/2009 By Mike Rudacille Updated %LET INDATA and YRDATA HCS094_1.
*
*  Purpose:   Calculate MPR Preventive Care Composites
```

```
*  Input:      HCSyyq_1.sas7bdat
*  Output:     RFINAL.sas7bdat
*              CFINAL.sas7bdat
*              MFINAL.sas7bdat
*              SFINAL.sas7bdat
*
*  Include
*    Files:    LOADCAHPQ.INC
*    Notes:    Next program is Loadmprq.sas
*
*              ***CHECK PARAMETER ASSIGNMENTS***
*****************************************************************;

     OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
             NOFMTERR COMPRESS=YES;

     /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
     %LET RCTYPE = ReportCards;

     LIBNAME IN          "..\..\..\Data\";
     LIBNAME INNORM   V612  "..\..\..\..\2005\DATA";
     LIBNAME CACLIB    "..\CAHPS_Adult2009\Data";
     LIBNAME OUT       ".";
     LIBNAME LIBRARY    "..\..\..\DATA\FMTLIB";

     %LET WGT=CFW;
     %LET NORMWGT = CFWT;
     %LET NORMDAT = HCS05A_1;

     %LET DEBUG=N;       /** Set to Y for Debug print of datasets **/
     %LET INDATA=HCS09A_1;

     %LET YRDATA=HCS09;
     %LET YR=09;

     /***** The following parameters are used in the Variance ****/
     /***** calcuation macro for region and catchment area    ****/

     %LET GRPNUM=8;      /** number of groups          **/
     %LET COMPNUM=7;     /** number of variables       **/  /* RSG - 04/2005 changed from 8 to 7
(eliminate cholesterol*/
     %LET REGNUM=15;     /** number of regions         **/  /* RSG - 01/2005 CHANGED TO FIT THE
16 CATEGORIES OF XSERVREG */
                                                    /* JSO 08/24/2006 (16 TO 15) Changed
Overseas Regions*/
     %LET CATCHNUM=9999; /** number of catchment areas **/

     %LET CMPNUM1=4;     /** number of variables in first composite  **/   /*RSG 04/2005 Changed
CMPNUM1 from 5 to 4*/
     %LET CMPNUM2=3;     /** number of variables in second composite **/   /*MJS 04/30/03 Changed
CMPNUM2 from 4 to 3*/

     %LET COMPCNT=2;     /** number of composites                    **/

     **** set up benchmarks for preventive services ;
     **** note -- these are the hp 2000 goals        ;

     %LET GOALVAR1= .90;    /** HP Goal for prenatal care        **/
     %LET GOALVAR2= .70;    /** HP Goal for Mammography          **/
     %LET GOALVAR3= .90;    /** HP Goal for Papsmear             **/
     %LET GOALVAR4= .95;    /** HP Goal for Blood Pressure check **/
     %LET GOALVAR5= .90;    /** access goals                     **/ /*04/2005 - RSG: DELETED
CHOLESTEROLE GOAL*/
     %LET GOALVAR6= .90;
     %LET GOALVAR7= .98;

     %INCLUDE "..\..\LOADWEBV4\LOADCAHQ.INC";

     *************************************************************;
     * Beneficiary group note
     *    Eight groups            Definitions
     * _____;
     * 1. Prime enrollees         XINS_COV IN (1,2,6) AND H09004>=2
     * 2. Enrollees w/mil PCM      XENR_PCM IN (1,2,6) AND H09004>=2
```

```
  * 3. Enrollees w/civ PCM      XENR_PCM IN (3,7)   AND H09004>=2
  * 4. Nonenrollees            XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
  * 5. Active duty             XBNFGRP = 1
  * 6. Active duty dependents  XBNFGRP = 2
  * 7. Retirees                XBNFGRP IN (3,4)
  * 8. All beneficiaries       ALL
  **************************************************************;


  *----------------------------------------------------
  * Add cacsmpl from group8.sd2 dataset - CDR 2/05/2004
  *----------------------------------------------------;

  PROC SORT DATA=CACLIB.GROUP8 OUT=GROUP8(KEEP=MPRID CACSMPL XSERVIND);
     BY MPRID;
  RUN;

  PROC SORT DATA=IN.&INDATA(KEEP=MPRID XINS_COV HP_BP HP_MAMOG
                            HP_PAP HP_PRNTL   /*ES 02/04/04*/
                            XTNEXREG XENR_PCM XBNFGRP ENBGSMPL &WGT FIELDAGE DBENCAT
                            STRATUM H09010 H09007 H09004 H09003 SERVAFF XREGION)
     OUT= &YRDATA; BY MPRID;
  RUN;

  /**** note -- output all data to a single dataset for macro */
  /**** call                                                  */
  /**** MACROS are no longer called for catchment areas       */

  /* 08/24/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
  *LIBNAME LIBRARY '..\..\..\..\2005\Data\fmtlib';

  DATA NORMDATA(KEEP=XTNEXREG XSERVREG &WGT PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                DENV1-DENV&COMPNUM XSERVAFF FIELDAGE);
                /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

    set INNORM.&NORMDAT(KEEP=MPRID XINS_COV HP_BP HP_MAMOG HP_PAP HP_PRNTL XTNEXREG
                        XENR_PCM XBNFGRP ENBGSMPL &NORMWGT ADJ_CELL DBENCAT
                        H05022  H05019  H05030  H05007  H05006  XCATCH  SERVAFF  XREGION
FIELDAGE);
                    /* 08/24/2006 JSO Added XREGION in the keep statement to get XOUSA */
                    /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                    /* 05/10/2007 JSO Added H05006, DBENCAT in the keep statement */

  ****************************************************************************
  * For quarterly reports, catchment level reporting is not done
  * so the value of cellp is set to 1.
  * For annual reporting purposes, cellp will need to be assigned
  * to geocell
  ****************************************************************************;

  /*RSG 02/2005 Added codes to define XTNEXREG & XSERVAFF*/

    IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
    ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
    ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
    ELSE XSERVAFF = 4;                         *Other/unknown;

    IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

    IF XTNEXREG = . THEN DELETE;

    IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

    NXNS_COV = XINS_COV;                /*JSO 04/26/2007 added for reservists logic*/
                                        /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
    IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
    IF DBENCAT IN('GRD','IGR') AND H05006 = 3 THEN DO;
       NXNS_COV = 3;
       XENR_PCM = .;
    END;

    PRVVAR1=HP_PRNTL;        /** prenatal care  **/
    PRVVAR2=HP_MAMOG;        /** mammography    **/
    PRVVAR3=HP_PAP;          /** papsmear       **/
    PRVVAR4=HP_BP;           /** blood pressure **/
```

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```
  PRVVAR5=H05022;              /** access var 1  **/
  PRVVAR6=H05019;              /** access var 2  **/
  PRVVAR7=H05030;              /** access var 3  **/

/**** set up numerator and denominator for proportions ****/

  ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
  ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
  ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

  DO I = 1 TO &COMPNUM;
     IF I LE  &CMPNUM1 THEN DO;
        IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
     END;
     ELSE IF I GT &CMPNUM1 THEN DO;
        IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
        ELSE NUMER(I)=0;
        IF PRVVAR(I) > 0 THEN DENOM(I)=1;
     END;
  END;
  DROP I;
  DENV4=1;


 /*RSG 02/2005 Added codes to define XSERVREG CACSMPL*/

    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
      ELSE XSERVREG = 4;
    END;

    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 5;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
      ELSE XSERVREG = 8;
    END;

    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 9;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
      ELSE XSERVREG = 12;
    END;

   IF XTNEXREG = 4 THEN DO;
     IF XREGION = 13 THEN XSERVREG = 13;
     ELSE IF XREGION = 14 THEN XSERVREG = 14;
     ELSE IF XREGION = 15 THEN XSERVREG = 15;
   END;


   RENAME XCATCH=CACSMPL &NORMWGT = &WGT;
run;

PROC SORT DATA=CACLIB.GROUP8 OUT=GROUP8(KEEP=MPRID CACSMPL XSERVIND);
   BY MPRID;
RUN;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
*LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";

DATA &YRDATA(KEEP=BGROUP MHS USA XSERVAFF CACSMPL &WGT. TMP_CELL
                  PRVVAR1-PRVVAR&COMPNUM. NUM&YR.V1-NUM&YR.V&COMPNUM.
                  DEN&YR.V1-DEN&YR.V&COMPNUM IN_GROUP8
                  XTNEXREG XSERVREG XSERVIND);
                  /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

   MERGE &YRDATA.(IN=IN_1) GROUP8(IN=IN_2); /*CDR 2/05/2004 */
   BY MPRID;
```

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```
   IF IN_1;
   IF IN_2=1 THEN IN_GROUP8=1;
   ELSE IN_GROUP8=0;



   ****************************************************************************
   * For quarterly reports, catchment level reporting is not done
   * so the value of cellp is set to 1.
   * For annual reporting purposes, cellp will need to be assigned
   * to geocell
   ****************************************************************************;
   IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
   ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
   ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
   ELSE XSERVAFF = 4;                         *Other/unknown;

   CELLP = 1;
   LENGTH TMP_CELL 8;
   TMP_CELL = STRATUM;    /* Make STRATUM a numeric variable */

   IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

   IF XTNEXREG = . THEN DELETE;

   IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

   NXNS_COV = XINS_COV;   /*JSO 05/14/2007 added for reservists logic*/
                          /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
   IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
   IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
      NXNS_COV = 3;
      XENR_PCM = .;
   END;

   PRVVAR1=HP_PRNTL;          /** prenatal care  **/
   PRVVAR2=HP_MAMOG;          /** mammography    **/
   PRVVAR3=HP_PAP;            /** papsmear       **/
   PRVVAR4=HP_BP;             /** blood pressure **/
   /*RSG 04/2005 - delete cholesterol, renumber PRVVAR below*/
   PRVVAR5=H09010;            /** access var 1   **/
   PRVVAR6=H09007;            /** access var 2   **/
*  PRVVAR7=H09030A;              /** access var 3   **/
/* MER temporary workaround 06/30/09 */
   PRVVAR7=2;

/**** set up numerator and denominator for proportions ****/

   ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
   ARRAY  NUMER(*) NUM&YR.V1-NUM&YR.V&COMPNUM;
   ARRAY  DENOM(*) DEN&YR.V1-DEN&YR.V&COMPNUM;

   DO I = 1 TO &COMPNUM;
      IF I LE  &CMPNUM1 THEN DO;
         IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
      END;
      ELSE IF I GT &CMPNUM1 THEN DO;
         IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) > 0 THEN DENOM(I)=1;
      END;
   END;
   DROP I;
   DENV4=1;

   MHS= 1;   /* set up dummy for MHS-- include all observations */

  /* 08/22/2006, JSO Create XOUSA for 2005 data */


   IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
```

```
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
        ELSE XSERVREG = 4;
    END;

    IF XTNEXREG = 2 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 5;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
        ELSE XSERVREG = 8;
    END;

    IF XTNEXREG = 3 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 9;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
        ELSE XSERVREG = 12;
    END;

    IF XTNEXREG = 4 THEN DO;
        IF XREGION = 13 THEN XSERVREG = 13;
        ELSE IF XREGION = 14 THEN XSERVREG = 14;
        ELSE IF XREGION = 15 THEN XSERVREG = 15;

    END;


*****************************************************************************
* Assign indicator of USA based on XTNEXREG.  USA stands for
* Contential United States it but includes both Alaska and Hawaii.
* 1/16/09 Changed USA to USA.
*****************************************************************************;
    IF XTNEXREG IN (1,2,3) THEN USA=1;                                      /*RSG 01/2005 OVERALL
USA*/

    ELSE IF XTNEXREG = 4 THEN USA=2;

* Prime enrollees      *;

    IF (NXNS_COV IN (1,2,6) AND H09004>=2) THEN DO;
        BGROUP=1;
        OUTPUT;
    END;

* Enrollees with military PCMs *;
    IF (XENR_PCM IN (1,2,6) AND H09004>=2) THEN DO;    /*ES 02/04/04*/
        BGROUP=2;
        OUTPUT;
    END;


* Enrollees with civilian PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
        (XENR_PCM IN (3,7) AND H09004>=2) THEN DO;
        BGROUP=3;
        OUTPUT;
    END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
        ((XENR_PCM IN (3) AND H09004>=2) OR NXNS_COV IN (3,9)) THEN DO;   /*JSO 07/30/2007,
Added 9*/
        BGROUP=3;
        OUTPUT;
    END;

* Nonenrollees *;

    IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
        BGROUP=4;                 /*JSO 07/30/2007, Added 9*/
        OUTPUT;
    END;

* Active duty      *;

    IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
        BGROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
```

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```
      OUTPUT;
    END;

* Active duty dependents  *;

   IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
      BGROUP=6;         /*JSO 07/30/2007, added DBENCAT conditions*/
      OUTPUT;
    END;

* Retirees  *;

   IF XBNFGRP IN (3,4) THEN DO;
      BGROUP=7;
      OUTPUT;
    END;

* All beneficiaries *;

   BGROUP=8;
   OUTPUT;
RUN;


PROC FREQ DATA=&YRDATA;
   TABLES IN_GROUP8/MISSING LIST;
   TITLE "OVERLAP BETWEEN &INDATA AND GROUP8 DATA";
RUN;

**** Next, check catchment areas for requisite number of observations ;
**** for the macro calls (exclude cacsmpl w/ <2 obs)                  ;
**** also, keep list of region/catchment area combinations           ;


PROC FREQ  DATA=&YRDATA;
    TABLE BGROUP*MHS*USA*XSERVind*CACSMPL/MISSING LIST
    OUT=OBSCNT(DROP=PERCENT);
RUN;


PROC SORT DATA=&YRDATA; BY BGROUP MHS USA XSERVind CACSMPL;
RUN;

DATA HCSDB /*FAILED*/;
   MERGE &YRDATA(IN=IN_ALL) OBSCNT(IN=IN_OBS);
   BY BGROUP MHS USA XSERVind CACSMPL;
   IF COUNT < 2 THEN DO;
       PUT "Failed obs # criterion: XSERVREG=" XSERVREG "CACSMPL=" CACSMPL;
       *OUTPUT FAILED;
   END;
*   ELSE OUTPUT HCSDB;
RUN;

DATA OBSCNT;
   SET OBSCNT;
   RENAME BGROUP=GROUP;
RUN;

PROC SORT NODUPKEY DATA=OBSCNT; BY GROUP CACSMPL;
RUN;




*****************************************************
*** First, calculate standard errors and create    ***
*** a file for each analytical unit                 ***
*****************************************************;

PROC SORT DATA=HCSDB; BY TMP_CELL;
RUN;

*****************************************************
***** Sudaan macro to calculate standard errors    *****
```

```
      ***** there are three output datasets created     *****
      ***** (XTNEXREG, XSERVREG, MHS, XSERVAFF)                      *****
      ***** Note:  7/10/2000 use USA for MHS          *****
      ***** Note:  there are 8 variables and 8 groups   *****
      ***** Note:  1/16/09 Changed USA to USA          *****
      ********************************************************;

      %MACRO A_SUDAAN(TABLEVAR);

      *** set the number of levels in the proc descript ***;
      *** for region or catchment                        ***;

       %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
           %LET ENDNUM=4;
           %LET PREF=S;          /** dataset prefix for service affiliation data    **/
       %END;
       %IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
           %LET ENDNUM=&REGNUM;
           %LET PREF=R;          /** dataset prefix for region data    **/
       %END;
       %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %LET PREF=C;              /** dataset prefix for
catchement area data **/

       %ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
           %LET ENDNUM=4;        /** RSG 01/2005 Change level of USA to 4 **/
           %LET PREF=M;
       %END;
      %ELSE %IF %UPCASE(&TABLEVAR)=CACSMPL %THEN %DO;
           %LET ENDNUM=&CATCHNUM;
           %LET PREF=D;          /** dataset prefix for catchement area data **/
       %END;

       %DO I=1 %TO &GRPNUM;     /** 8 groups    **/

           %DO J=1 %TO &COMPNUM;   /** 7 variables **/

                   DATA INDATA&I.&J(KEEP=&WGT MHS USA XTNEXREG XSERVREG XSERVAFF
                                   CACSMPL NUM&YR.V&J DEN&YR.V&J TMP_CELL);
                   SET HCSDB;
                   WHERE XSERVREG > 0 AND BGROUP=&I AND DEN&YR.V&J > 0;
                   %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
                       IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;   /*RSG 01/2005 Delete USA
greater than 4 which are not USA */
                   %END;
                       %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
                           IF USA NE 1 THEN DELETE;
                       %END;
                       %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
                           IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
                       %END;

               RUN;

       *** Calculate values for regions, catchment areas ****;

               %IF %UPCASE(&TABLEVAR) NE USA %THEN %DO;

                   PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                       WEIGHT &WGT;
                       SETENV DECWIDTH=4;
                       NEST TMP_CELL / MISSUNIT;
                       VAR NUM&YR.V&J;
                       TABLES &TABLEVAR;
                       SUBGROUP &TABLEVAR;
                       LEVELS &ENDNUM;
                       OUTPUT SEMEAN/ TABLECELL=DEFAULT REPLACE
                       FILENAME=&PREF.GRP&I.V&J;
                   RUN;

               %END;
               %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;

       **** No tables, levels, or subgroups needed ****;
```

```
              PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                  WEIGHT &WGT;
                  SETENV DECWIDTH=4;
                  NEST TMP_CELL / MISSUNIT;
                  VAR NUM&YR.V&J;
                  OUTPUT SEMEAN/ TABLECELL=DEFAULT REPLACE
                  FILENAME=&PREF.GRP&I.V&J;
              RUN;

          %END;

***** first, put all variables into one dataset for each group *****;

          DATA &PREF.GRP&I.V&J;
              SET &PREF.GRP&I.V&J;
              IF SEMEAN NE .;
              MHS=1;
              %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
                   USA=1;
              %END;
          RUN;

          %IF &J=1 %THEN %DO;
              DATA &PREF.SEGRP&I;
                  SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                  GROUP=&I;
                  IF SEMEAN NE .;
                  RENAME SEMEAN = SERR&YR.V&J;
              RUN;
          %END;
          %ELSE %DO;
              DATA &PREF.SEGRP&I;
                  MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                  BY &TABLEVAR;
                  GROUP=&I;
                  RENAME SEMEAN = SERR&YR.V&J;
              RUN;
          %END;
      %END;

***** Put all data into one dataset  *****
***** Note:  changed output dataset  *****
***** to include group               *****;

      %IF &I=1 %THEN %DO;

          DATA &PREF.SERR;
              SET &PREF.SEGRP&I;
              KEEP GROUP &TABLEVAR SERR&YR.V1-SERR&YR.V&COMPNUM;
          RUN;
      %END;
      %ELSE %DO;

          DATA &PREF.SERR;
              SET &PREF.SERR
              &PREF.SEGRP&I;
          RUN;
      %END;

******** DEBUG PRINT   *******;

      %IF &DEBUG=Y %THEN %DO;
          %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
               PROC PRINT DATA=&PREF.SERR;
                  VAR &TABLEVAR GROUP SERR&YR.V1-SERR&YR.V&COMPNUM;
               RUN;
          %END;
      %END;

 %END;

%MEND A_SUDAAN;

%A_SUDAAN (USA);
```

```
      %A_SUDAAN (XSERVAFF);
      %A_SUDAAN (XSERVREG);
      %A_SUDAAN (XTNEXREG);
      %A_SUDAAN (CACSMPL);


      ********************************************************
      *** Next, calculate correlation coefficients        ***
      *** and create a file for each analytical unit       ***
      ********************************************************;

      %MACRO GETCORR(BYVAR);

       %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
       %ELSE %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
       %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
       %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
       %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=D;

       PROC SORT DATA=HCSDB; BY &BYVAR;
       RUN;


       %DO I = 1 %TO &GRPNUM;

          PROC CORR NOPRINT DATA=HCSDB OUTP=&PREF.CORRC&I;
            %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %DO;
               WHERE BGROUP=&I AND 1 <= XSERVAFF <= 4;       /** RSG 0/2005 Change USA values to
keep to be between 1-4 **/
             %END;
            %IF %UPCASE(&BYVAR)=USA %THEN %DO;
               WHERE BGROUP=&I AND USA = 1;
            %END;
             %ELSE %DO;
                WHERE BGROUP=&I;
             %END;
             BY &BYVAR;
             VAR PRVVAR1-PRVVAR&COMPNUM;
             WITH PRVVAR1-PRVVAR&COMPNUM;
             WEIGHT &WGT;
          RUN;

          DATA &PREF.CORRC&I;
            SET &PREF.CORRC&I;
            WHERE _TYPE_="CORR";
            GROUP=&I;
            ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
            ARRAY NEW COR&YR.V1-COR&YR.V&COMPNUM;
            DO J = 1 TO &COMPNUM;
               NEW(J)=OLD(J);
            END;
            DROP J PRVVAR1-PRVVAR&COMPNUM;
          RUN;

          %IF &I=1 %THEN %DO;

            DATA &PREF.CORRC;
              SET &PREF.CORRC&I;
            RUN;

          %END;
          %ELSE %DO;

            DATA &PREF.CORRC;
              SET &PREF.CORRC
              &PREF.CORRC&I;
            RUN;

          %END;
          %IF &DEBUG=Y %THEN %DO;
             %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
                PROC PRINT DATA=&PREF.CORRC;
                   WHERE GROUP=1;
                RUN;
             %END;
          %END;
```

```
   %END;

*** Flatten dataset(for each region, condense matrix to one row) ***;

 %DO K=1 %TO &COMPNUM;

    DATA &PREF.CORR&K;
      SET &PREF.CORRC;
      WHERE _NAME_ = "PRVVAR&K";
      ARRAY CORR    (&COMPNUM) COR&YR.V1-COR&YR.V&COMPNUM;
      ARRAY CORR&K (&COMPNUM) COR&YR.V&K.1-COR&YR.V&K.&COMPNUM;
      DO L=1 TO &COMPNUM;
          CORR&K(L)=CORR(L);
      END;
      KEEP GROUP &BYVAR COR&YR.V&K.1-COR&YR.V&K.&COMPNUM;
    RUN;
    %IF &K=1 %THEN %DO;
        DATA &PREF.CORR;
          SET &PREF.CORR&K;
        RUN;
    %END;
    %ELSE %DO;
        DATA &PREF.CORR;
          MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
          BY GROUP &BYVAR;
        RUN;
    %END;
    %IF &DEBUG=Y %THEN %DO;
        %IF &PREF=R %THEN %DO;
            PROC PRINT DATA=&PREF.CORR;
                WHERE GROUP=1;
            RUN;
        %END;
    %END;
   %END;
 %END;

%MEND GETCORR;

%GETCORR(USA);
%GETCORR(XSERVAFF);
%GETCORR(XSERVREG);
%GETCORR(XTNEXREG);
%GETCORR(CACSMPL);

********************************************************
***   Macro to derive composites for each        *******
***   beneficiary group, level                   *******
***   output one dataset for each group          *******
********************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=D;

 PROC MEANS NWAY NOPRINT DATA=HCSDB;
    CLASS BGROUP &BYVAR;
    VAR NUM&YR.V1-NUM&YR.V&COMPNUM
        DEN&YR.V1-DEN&YR.V&COMPNUM;
    WEIGHT &WGT;
    OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
    SUM =  ;
 RUN;
 PROC MEANS NWAY NOPRINT DATA=normdata;
 *   CLASS &BYVAR;
    VAR
        DENV1-DENV&COMPNUM;
    WEIGHT &wgt.;
    OUTPUT OUT= &PREF.norms(DROP = _TYPE_)
```

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```
       SUM =  nrmv1-nrmv&compnum;
     RUN;

    PROC MEANS NWAY NOPRINT DATA=HCSDB;
       CLASS BGROUP &BYVAR;
       VAR DEN&YR.V1-DEN&YR.V&COMPNUM;
       OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
       SUM= NOBS&YR.V1-NOBS&YR.V&COMPNUM;
     RUN;

    data &pref.cmpsum;

    if _n_=1 then set &pref.norms;
    set &pref.cmpsum;
    proc sort data=&pref.cmpsum; by bgroup &byvar;
     DATA &PREF.CMPSUM;
       MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS&YR.))
             &PREF.DGFR;
       BY BGROUP &BYVAR;
       %IF &PREF=M %THEN %DO;  /** added 7/10/2000 **/
            WHERE 1 <= XSERVAFF <= 4;          /** RSG 01/2005 Change USA values to keep to be
between 1-4 **/
       %END;
       %ELSE %IF &PREF=C %THEN %DO;
           WHERE USA = 1;
       %END;

     **** set up group variable  **;

      RENAME BGROUP=GROUP;;

     **** set up proportions, and composites **;

     ARRAY PROPORT PROP&YR.V1-PROP&YR.V&COMPNUM;
     ARRAY NUMER   NUM&YR.V1-NUM&YR.V&COMPNUM;
     ARRAY DENOM   DEN&YR.V1-DEN&YR.V&COMPNUM;
     array norm    nrmv1-nrmv&compnum;

     DO J=1 TO DIM(PROPORT);
         PROPORT(J) = NUMER(J)/DENOM(J);
     END;
     DROP J;

    **** composites **;


  ** added goalvars to datastep, 5/30/2000                    ;
  ** taken out of temporary array for variance calculations;
  ** and used, kept as variables                             ;

   GOALVAR1=&GOALVAR1;
   GOALVAR2=&GOALVAR2;
   GOALVAR3=&GOALVAR3;
   GOALVAR4=&GOALVAR4;
   GOALVAR5=&GOALVAR5;
   GOALVAR6=&GOALVAR6;
   GOALVAR7=&GOALVAR7;
  /*RSG 04/2005 - delete goal8 since chol eliminated*/

  ** the weight for preventive service is defined as the         ;
  **  proportion  of  the  denominator  for  that  service  to  the            ;
;
  ** composite denominator                                       ;
  ** healthy people 2000 goals -- used as benchmarks             ;

   ARRAY   SVCWGT(&COMPNUM) WGT&YR.V1-WGT&YR.V&COMPNUM;
   ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
   ARRAY WGTBMARK(&COMPNUM) WTD&YR.V1-WTD&YR.V&COMPNUM;
   array comp(&compnum) cmp&yr.v1-cmp&yr.v&compnum;
 cpden1=sum(of nrmv1-nrmv&cmpnum1);
 cpden2=sum(of nrmv&start-nrmv&compnum);
   DO K = 1 TO &COMPNUM;
       IF K < &START THEN SVCWGT(K)= norm(K)/CPDEN1;
       ELSE SVCWGT(K) = norm(K)/CPDEN2;
```

```
        WGTBMARK(K) = SVCWGT(K)*BMARK(K);
        comp(k)=svcwgt(k)*proport(k);
    END;
    DROP K;
      CP&YR.BMK1=SUM(OF WTD&YR.V1-WTD&YR.V&CMPNUM1);
      CP&YR.BMK2=SUM(OF WTD&YR.V&START-WTD&YR.V&COMPNUM);
      comp&yr.1=sum(of cmp&yr.v1-cmp&yr.v&cmpnum1);
      comp&yr.2=sum(of cmp&yr.v&start-cmp&yr.v&compnum);
      DROP WGT&YR.V1-WGT&YR.V&COMPNUM WTD&YR.V1-WTD&YR.V&COMPNUM
          NUM&YR.V1-NUM&YR.V&COMPNUM;

  RUN;

  %IF &DEBUG=Y AND &PREF=R %THEN %DO;
      PROC PRINT DATA=&PREF.CMPSUM;  /* print out final dataset */
      RUN;                              /* for region to check     */
  %END;

%MEND GETPROP;

%GETPROP(USA);
%GETPROP(XSERVAFF);
%GETprop(XSERVREG);
%GETPROP(XTNEXREG);
%GETProp(CACSMPL);

**********************************************************
** since MHS benchmarks will be displayed          ****
** set up adjustment factor to apply to            ****
** each analytical unit's composite benchmarks     ****
**********************************************************;


DATA ADJUST;
    SET MCMPSUM(KEEP=GROUP CP&YR.BMK1 CP&YR.BMK2);
    WHERE GROUP=8;           /** use all beneficiaries **/
    RENAME CP&YR.BMK1=MHS&YR.BM1;
    RENAME CP&YR.BMK2=MHS&YR.BM2;
    DROP GROUP;
RUN;


**********************************************************
***  Macro to merge 3 datasets for each         *******
***  called by analytical unit                  *******
***  output final dataset for                   *******
***  XSERVAFF, XSERVREG, XTNEXREG, MHS (USA)     *******
**********************************************************;

PROC FORMAT;  /*RSG 02/2005 - hardcoded in prog to have caps vs format in loadcahq.inc*/
    VALUE REGIONF
        0 = "USA MHS "
        1 = "NORTH"
        2 = "SOUTH"
        3 = "WEST"
        4 = "OVERSEAS"
    ;
%MACRO GETSIG(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);
 %LET NEXT  = %EVAL(&CMPNUM1+2);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
 %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
 %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
 %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
 %ELSE %IF %UPCASE(&BYVAR)=CACSMPL %THEN %LET PREF=D;


 DATA OUT.&PREF.FINAL (KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
                SIG&YR.V1-SIG&YR.V&COMPNUM SCOR&YR.V1-SCOR&YR.V&COMPNUM
                CP&YR.SIG1-CP&YR.SIG&COMPCNT CP&YR.1SE CP&YR.2SE
                CP&YR.BMK1-CP&YR.BMK&COMPCNT
                SERR&YR.V1-SERR&YR.V&COMPNUM CP&YR.1SE CP&YR.2SE
```

```
                COMP&YR.1 COMP&YR.2 PROP&YR.V1-PROP&YR.V&COMPNUM
                DF&YR.SCR1-DF&YR.SCR&COMPNUM DF&YR._CP1 DF&YR._CP2
                NOBS&YR.V1-NOBS&YR.V&COMPNUM CP&YR.OBS1-CP&YR.OBS&COMPCNT
                DEN&YR.V1-DEN&YR.V&COMPNUM CP&YR.DEN1-CP&YR.DEN&COMPCNT);


    /** output a dataset to check **/

      /* OUT.&PREF.CHECK(DROP=DROP=SESQ&YR.V1-SESQ&YR.V&COMPNUM
                         PROP&YR.V1-PROP&YR.V&COMPNUM
                         SEM&YR.V11-SEM&YR.V&COMPNUM.&COMPNUM);*/

    FORMAT MAJGRP $30. REGION $25. REGCAT $42.;

    %IF &PREF=D %THEN %DO;

        MERGE OBSCNT(IN=IN_OBS) &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
              &PREF.SERR;
        BY GROUP &BYVAR;
        IF IN_OBS;

    %END;
    %ELSE %DO;

        MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
              &PREF.SERR;
        BY GROUP &BYVAR;
        IF IN_PROP;

    %END;

    /**  MAJGRP -- text field for group   **/

         IF GROUP=1 THEN MAJGRP="Prime Enrollees             ";
    ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
    ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
    ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
    ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
    ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
    ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
    ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";


    /**** REGION AND REGCAT SETUP          **/

    %IF &PREF=D %THEN %DO;
       REGCAT=PUT(CACSMPL, CACR.);
       REGION=PUT(XSERVind, SERVREGo.);
    %END;
    %IF &PREF=S %THEN %DO;
        REGCAT=PUT(XTNEXREG,REGIONF.);
        REGION=PUT(XTNEXREG,REGIONF.);
    %END;
    %else %IF &PREF=C %THEN %DO;
        REGION="USA MHS";
        REGCAT="USA MHS";
    %END;
    %ELSE %IF &PREF=R %THEN %DO;
        REGION=PUT(XSERVREG, SERVREGo.);
        REGCAT=PUT(XSERVREG, SERVREGo.);
    %END;
    %ELSE %IF &PREF=M %THEN %DO;                       /** RSG 1/2005 Add codes for service
grouping **/
        REGION=PUT(XSERVAFF,XSERVAFF.);
        REGCAT=PUT(XSERVAFF,XSERVAFF.);
    %END;

    /**** setup t statistics, degreees of freedom     **/

    ARRAY    TSTAT{&COMPNUM} T_&YR.V1-T_&YR.V&COMPNUM;
    ARRAY    BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
    ARRAY   STNDERR{&COMPNUM} SERR&YR.V1-SERR&YR.V&COMPNUM;
    ARRAY   SERRSQR{&COMPNUM} SESQ&YR.V1-SESQ&YR.V&COMPNUM;
    ARRAY     DEGF{&COMPNUM} DF&YR.SCR1-DF&YR.SCR&COMPNUM;
```

```
ARRAY    DENOM{&COMPNUM} DEN&YR.V1-DEN&YR.V&COMPNUM;
ARRAY  PROPORT{&COMPNUM} PROP&YR.V1-PROP&YR.V&COMPNUM;
ARRAY    SCORE{&COMPNUM} SCOR&YR.V1-SCOR&YR.V&COMPNUM;
ARRAY   PVALUE{&COMPNUM} PVAL&YR.V1-PVAL&YR.V&COMPNUM;
ARRAY      SIG{&COMPNUM} SIG&YR.V1-SIG&YR.V&COMPNUM;
ARRAY    N_OBS{&COMPNUM} NOBS&YR.V1-NOBS&YR.V&COMPNUM;
array     norm{&compnum} nrmv1-nrmv&compnum;
/** get the item variance, t-statistics, df, p-values **/
/** and whether significant                          **/

DO I=1 TO &COMPNUM;
    SERRSQR{I}=STNDERR{I}**2;  /* Item variance */
    SCORE{I}=PROPORT{I}*100;   /* Score (prop. * 100) */
    IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
    ELSE TSTAT{I}=.;
    DEGF{I}=N_OBS{I}-1;
    PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
    IF PVALUE{I} GE .05 THEN SIG{I}=0;
    ELSE IF PVALUE{I} < .05 THEN DO;
        IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
        IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
    END;
END;
DROP I;

/** multiply each item pair std. errors and correlation coefficients **/
/** preventive care composite                                        **/

ARRAY SERRC1{&CMPNUM1} SERR&YR.V1-SERR&YR.V&CMPNUM1;
ARRAY SEwC1{&CMPNUM1} SEw&YR.V1-SEw&YR.V&CMPNUM1;
%DO J = 1 %TO &CMPNUM1;
    ARRAY  SMEAN&J{&CMPNUM1} SEM&YR.V&J.1-SEM&YR.V&J.&CMPNUM1;
    ARRAY CORVAR&J{&CMPNUM1} COR&YR.V&J.1-COR&YR.V&J.&CMPNUM1;
    DO K=1 TO &CMPNUM1;
        SMEAN&J{K}=SERR&YR.V&J*SERRC1{K}*CORVAR&J{K}*norm{K}*nrmV&J;
    END;
    SEM&YR.V&J.&J=0; /** don't count in final standard error calculation **/
    sew&yr.v&j= (nrmV&j**2)*SESQ&YR.V&j;
    %END;
DROP K;
/** multiply each item pair std. errors and correlation coefficients **/
/** access to care composite                                         **/

ARRAY SERRC2{&CMPNUM2} SERR&YR.V&START-SERR&YR.V&COMPNUM;

%DO L = &START %TO &COMPNUM;
    ARRAY  SMEAN&L{&CMPNUM2} SEM&YR.V&L.&START-SEM&YR.V&L.&COMPNUM;
    ARRAY CORVAR&L{&CMPNUM2} COR&YR.V&L.&START-COR&YR.V&L.&COMPNUM;
    DO M=1 TO &CMPNUM2;
        SMEAN&L{M}=SERR&YR.V&L*SERRC2{M}*CORVAR&L{M};
    END;
    SEM&YR.V&L.&L=0;  /** don't coun't in final standard error calculation **/
  %END;
  DROP M;
/** calculate composite t-statistic, pvalue, and whether significant **/
/** for composites                                                   **/

  %DO P=1 %TO &COMPCNT;
     %IF &P=1 %THEN %DO;

        /** composite standard error comprised of two parts **/
        CP&YR.&P.SE1=SUM(OF SEw&YR.V1-SEw&YR.V&CMPNUM1);
        CP&YR.&P.SE2=SUM(OF SEM&YR.V11-SEM&YR.V&CMPNUM1.&CMPNUM1.);
        cp&yr.obs&p=sum(of nobs&yr.v1-nobs&yr.v&cmpnum1);
        cp&yr.den&p=sum(of nrmv1-nrmv&cmpnum1);
     %END;
     %ELSE %DO;
        CP&YR.&P.SE1=SUM(OF SESQ&YR.V&START-SESQ&YR.V&COMPNUM);
        CP&YR.&P.SE2=SUM(OF SEM&YR.V&START.&START.-SEM&YR.V&COMPNUM.&COMPNUM.);

     %END;

  /** add the two parts of the composite standard error  **/
  /** calculate the composite t statistics and p-values  **/
```

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```
        /** determine whether differences re sigificant       **/

     /**RSG - 02/2005 Some of the following codes will produce some
              "error" (e.g., fields that are not initialized) - these
              are "leftover" codes from previous versions of the survey
              where 2 composite scores were produced.  Now since we only
              use 1 composite score, these are basically calculations that
              are not used...but kept in "just in case"**/
        IF  CP&YR.DEN&P  >  0  THEN  CP&YR.&P.SE=SQRT(CP&YR.&P.SE2+CP&YR.&P.SE1)/cp&yr.den&P;
/*RSG 02/2005 prevent division by zero*/
        ELSE CP&YR.&P.SE = .;
        IF CP&YR.&P.SE > 0 THEN CP&YR._T&P.=(COMP&YR.&P.-CP&YR.BMK&P.)/CP&YR.&P.SE;
        ELSE CP&YR._T&P.= .;
        DF&YR._CP&P.=CP&YR.OBS&P. - 1;
        CP&YR._P&P.=(1-PROBT(ABS(CP&YR._T&P.),DF&YR._CP&P.))*2;
        IF CP&YR._P&P GE .05 THEN CP&YR.SIG&P=0;
        ELSE IF CP&YR._P&P < .05 THEN DO;
           IF COMP&YR.&P. > CP&YR.BMK&P THEN CP&YR.SIG&P= 1;
           ELSE IF COMP&YR.&P. < CP&YR.BMK&P THEN CP&YR.SIG&P=-1;
        END;

     %END;

     OUTPUT OUT.&PREF.FINAL;

     /*%IF &PREF=M %THEN %DO;
        OUTPUT OUT.&PREF.CHECK;
     %END; */

  RUN;

  %MEND GETSIG;

  /** RSG 02/2005 - Any errors relating to unintialized fields such as
      cp&yr.den2 or cp&yr.obs2 can be ignored - these (as well as field
      that uses these fields for calculations, e.g. df&yr._cp2, are not
      used **/
  %GETSIG(USA);
  %GETSIG(XTNEXREG);
  %GETSIG(XSERVREG);
  %GETSIG(XSERVAFF);
  %GETSIG(CACSMPL);
```

```
     ****************************************************************************
     *
     *  Project:   DoD Reporting and Analysis 6077-410
     *  Program:   SMOKING_BMI.SAS
     *  Purpose:   Calculate Smoking Rate and Smoking Cessation
     *             for each region-service affiliation and
     *             conus-service affiliation groups.
     *
     *  Date:      1/31/2005
     *  Author:    Regina Gramss
     *
     *  Modified:  1) 04/2005 By Regina Gramss, Updated for Q1 2005.
     *             2) 12/2005 By Regina Gramss, Updated for Q4 2005.
     *             3) 01/2006 By Regina Gramss - Updated for 2005 annual data.  Normalize
     *                with 2005 data and not 2000.  Standardize using age/sex and MPCSMPL
     *                (military personnel category).  Update smoking cessation
     *                calculation with new formula to correspond more to HEDIS.  Use new
     *                weight (CFWT) and use STRATUM as TMP_CELL.
     *             4) 03/24/2006 By Keith Rathbun, Updated for Q2 FY 2006.
     *             5) 07/12/2006 By Justin Oh, Updated for Q3 FY 2006.
     *             6) 08/24/2006 By Justin Oh, REGNUM changed from 16 to 24.
     *                Changed XSERVREG for Overseas
     *                Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
     *                        IF XINS_COV IN (3)     THEN GROUP4 = 1
     *                Since only XINS_COV IN (1,2,3,6) is kept.
     *                Create XOCONUS for 2005 data.
     *                Added/Moved LIBRARY Libname to use both Quarter/Annual Formats.
     *             7) 10/04/2006 By Justin Oh, Updated %LET DSN and CURRENT.
     *              8) 12/22/2006 By Justin Oh, Updated %LET DSN HCS071_1 and CURRENT October,
     2006.
     *              9) 02/02/2007 By Justin Oh, Added "s" to Healthy Behaviors
     *             10) 04/05/2007 By Justin Oh, Updated %LET DSN HCS072_1 and CURRENT January,
     2007.
     *             11) 04/05/2007 By Justin Oh, Added conditions for RC types
     *                         ReportCards OR PurchasedReportCards.
     *             12) 05/10/2007 By Justin Oh, Added codes, variables for new reservists logic
     for
     *                         both Norm and Quarter datasets.
     *             13) 05/15/2007 By Justin Oh, Changed XINS_COV to NXNS_COV to assign
     *                         Groups 1,3, and 4 for new reservists logic.
     *             14) 07/30/2007 By Justin Oh, Added added DBENCAT conditions to assign
     *                         Groups All, 4, 5, and 6.
     *             15) 09/04/2007 By Justin Oh, Updated %LET DSN HCS074_1 and CURRENT July, 2007.
     *              16) 01/10/2008 By Keith Rathbun, Updated %LET DSN HCS081_1 and CURRENT
     October, 2007.
     *                         Also changed H07 variable names to be H08 to match 2008 survey.
     *              17) 04/11/2008 By Justin Oh, Updated %LET DSN HCS082_1 and CURRENT January,
     2008.
     *              18) 06/13/2008 By Keith Rathbun, Updated %LET DSN HCS083_1 and CURRENT April,
     2008.
     *               19) 03/11/2009 By Keith Rathbun, Updated %LET DSN HCS092_1 and CURRENT
     January, 2009.
     *               20) 04/20/2009 By Mike Rudacille, Switched from 2005 to 2007 benchmark data
     for transition to
     *                  V4 questionnaire.
     *              21) 05/05/2009 By Mike Rudacille, Updated for 2008 benchmark data.
     *              22) 06/22/2009 By Keith Rathbun, Updated %LET DSN HCS093_1 and CURRENT April,
     2009.
     *                  Changed weight variable from FWRWT_V4 back to FWRWT.
     *              23) 09/30/2009 By Mike Rudacille, Updated %LET DSN HCS094_1 and CURRENT July,
     2009.
     *
     *   Inputs:    1) HCS05A_1.SD2 - Annual 2005 Survey data
     *              2) HCS093_1.sas7bdat - Q3 fy 2009 Survey data
     *              3) AC2008DB.sas7bdat - 2008 CAHPS Benchmark Data
     *
     *   Output:    1) SMOKE.sas7bdat
     *
     *
     ***************************************************************************;
```

```
       OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR;

       /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
       %LET RCTYPE = ReportCards;

       LIBNAME BENCH        "..\..\..\..\2008AdultChildNCBD\Adult";
       LIBNAME INDAT        "..\..\..\Data\";
       LIBNAME INNORM v612 "..\..\..\..\2005\Data";
       LIBNAME OUT          ".";
       LIBNAME LIBRARY '..\..\..\Data\fmtlib';
       LIBNAME INGP '..\CAHPS_ADULT2009\DATA';

       %LET DSN=HCS09A_1;
       %LET DSN_NORM=HCS05A_1;                  /*JSO 08/24/2006, Changed Regions, 16 to 15*/
       %LET REGNUM = 15;                                /*RSG 01/2005 Number of Regions (with serv
affiliation)*/
       %LET CONNUM = 4;                        /*RSG 01/2005 Number of Conus level (with serv
affiliation)*/
       %LET CURRENT = 2009;
       %LET WGT = CFW;
       %LET NORMWGT = CFWT;
       %LET CATCHNUM=9999;                        /*RSG 02/2005 number of catchment areas **/

       DATA BENCHA01;
          SET BENCH.AC2008DB (RENAME=(BIRTHYY=YOB));
          if product in (7,9) then model=4;
          if product=3 then model=2;                         /*coded according to AC FORMATS.SAS*/
          if product=1 then model=1;
          if product=4 then model=6;
          if product=8 then model=5;
          if product=2 then model=3;
          product=planid;
       if ^(model in (2,4));
       if disp in ('M10','I10')  ;
       if ac45_08 in (1,2) & ac46_08>=0 & ac46_08<=4;   /*02/2006 RSG - REMOVED REQUIREMENT FOR
ADDITIONAL VISIT (ACC22 FIELD)*/
       cessbnch=0;
       if ac46_08>0 then cessbnch=1;


       proc summary nway; class product;
       var cessbnch;
       output out=tbench mean=;
       proc print;
       proc summary;
       var cessbnch;
       output out=tbench mean=;
       proc print;
       data _null_;
       set tbench;
       call symput('CNSLGOAL',cessbnch);
       run;

       %LET NSMKGOAL = 0.88;

       %LET BMIGOAL  = 0.85;

       %INCLUDE "..\..\LoadWebV4\LOADCAHQ.INC";

       PROC FORMAT;
       VALUE AGEF
       LOW - 34 = 1
        35 - 49 = 2
        50 - 64 = 3
        65 - HIGH = 4;

       /* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */

       DATA NORMDATA (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF
                      SM_RATE SM_CESS SM_RTDN SM_CSDN  BMI_DN BMI
                      TOTCON GROUP XSEXA &WGT. age_n MPCSMPL CACSMPL NXNS_COV);
                      /* 05/10/2007 JSO Added NXNS_COV in the keep statement */
       SET INNORM.&DSN_NORM. (DROP=CACSMPL) ;
```

```
      LENGTH AGE_N AGE_GRP TMP_CELL 8.;


      TMP_CELL=STRATUM;

      AGE_N = FIELDAGE;

      AGE_GRP = PUT(AGE_N, AGEF.);
      IF AGE_GRP < 4;

      IF SERVAFF = 'A' THEN XSERVAFF = 1;          *Army;
      ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
      ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;    *Navy;
      ELSE XSERVAFF = 4;                          *Other/unknown;

      IF XTNEXREG = 1 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 1;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
         ELSE XSERVREG = 4;
      END;

      IF XTNEXREG = 2 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 5;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
         ELSE XSERVREG = 8;
      END;

      IF XTNEXREG = 3 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 9;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
         ELSE XSERVREG = 12;
      END;

      IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
         IF      XREGION = 13 THEN XSERVREG = 13;
         ELSE IF XREGION = 14 THEN XSERVREG = 14;
         ELSE IF XREGION = 15 THEN XSERVREG = 15;
      END;

      IF HP_SMOKH IN (1,2) THEN DO;
         SM_RATE = 0;
         IF HP_SMOKH = 2 THEN SM_RATE=1;
         SM_RTDN=1;
      END;

      if hp_smokh=1 & H05055>0 then do;      /*RSG 02/2006 NEW SMOKING CESSATION FORMULA AS PER
ERIC SCHONE */
      if H05055>1 then sm_cess=1;
      else sm_cess=0;
      sm_csdn=1;
      end;

      IF xbmicat > 0  THEN DO;
          BMI = 0;
          BMI_DN=1;
          IF xbmicat <=3 THEN BMI=1;
      END;

      IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

      ELSE IF XTNEXREG = 4 THEN TOTCON=2;

      IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

      RENAME XCATCH=CACSMPL &NORMWGT = &WGT;

      IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

      IF XTNEXREG = .    THEN DELETE;

      IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/
```

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```
      NXNS_COV = XINS_COV;                  /*JSO 04/26/2007 added for reservists logic*/
                                            /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
      IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
      IF DBENCAT IN('GRD','IGR') AND H05006 = 3 THEN DO;
         NXNS_COV = 3;
         XENR_PCM = .;
      END;

      * prime enrollees;
      IF NXNS_COV IN (1,2,6) AND H05007>=2 THEN DO;
         GROUP=1;
         OUTPUT;
      END;

      * enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
      IF XENR_PCM IN (1,2,6) AND H05007>=2 THEN DO;
         GROUP=2;
         OUTPUT;
      END;


      * enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
      IF XENR_PCM = 3 AND H05007>=2 THEN DO;
         GROUP=3;
         OUTPUT;
      END;


      * nonenrollees;
      IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
         GROUP=4;                   /*JSO 07/30/2007, Added 9*/
         OUTPUT;
      END;

      * active duty;
      IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
         GROUP=5;          /*JSO 07/30/2007, added DBENCAT conditions*/
         OUTPUT;
      END;

      * active duty dependents;
      IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR')THEN DO;
         GROUP=6;          /*JSO 07/30/2007, added DBENCAT conditions*/
         OUTPUT;
      END;

      * retirees;
      IF XBNFGRP IN (3,4) THEN DO;
         GROUP=7;
         OUTPUT;
      END;

      * all beneficiaries;
      GROUP=8;
      OUTPUT;

      RUN;


      DATA SMOKE (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF TOTCON GROUP
                  SM_RATE SM_CESS SM_RTDN SM_CSDN XSEXA &WGT BMI_DN BMI
                  CACSMPL MPCSMPL NXNS_COV);/* 05/10/2007 JSO Added NXNS_COV in the keep
statement */
      SET INDAT.&DSN. (DROP=CACSMPL);
      LENGTH AGE_N AGE_GRP TMP_CELL 8.;

      /* MER 4/20/09 - Restrict dataset to just non-zero V4 weights */
      *IF &WGT <= 0 THEN DELETE;

      TMP_CELL=STRATUM;

      AGE_N = FIELDAGE;
```

```
      AGE_GRP = PUT(AGE_N, AGEF.);

      IF AGE_GRP < 4;
      IF SERVAFF='A' THEN XSERVAFF=1;                 *Army;
         ELSE IF SERVAFF='F' THEN XSERVAFF=2;         *Air Force;
         ELSE IF SERVAFF='N' THEN XSERVAFF=3;         *Navy;
         ELSE XSERVAFF=4;

      IF XTNEXREG = 1 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 1;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
         ELSE XSERVREG = 4;
      END;

      IF XTNEXREG = 2 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 5;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
         ELSE XSERVREG = 8;
      END;

      IF XTNEXREG = 3 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 9;
         ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
         ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
         ELSE XSERVREG = 12;
      END;

      IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
         IF      XREGION = 13 THEN XSERVREG = 13;
         ELSE IF XREGION = 14 THEN XSERVREG = 14;
         ELSE IF XREGION = 15 THEN XSERVREG = 15;
      END;

      IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

      ELSE IF XTNEXREG=4 THEN TOTCON=2;

      IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

      RENAME XCATCH=CACSMPL;

      IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

      IF XTNEXREG = . THEN DELETE;

      IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

      NXNS_COV = XINS_COV;                /*JSO 04/26/2007 added for reservists logic*/
                                          /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
      IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
      IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
         NXNS_COV = 3;
         XENR_PCM = .;
      END;

      IF HP_SMKH2 IN (1,2) THEN DO;
         SM_RATE = 0;
         IF HP_SMKH2 = 2 THEN SM_RATE=1;
         SM_RTDN=1;
      END;

      if hp_smkh2=1 & H09053>0 then do;      /*RSG 02/2006 NEW SMOKING CESSATION FORMULA AS PER
ERIC SCHONE */
         if H09053>1 then sm_cess=1;
         else sm_cess=0;
         sm_csdn=1;
      end;

      IF xbmicat > 0  THEN DO;
          BMI = 0;
          BMI_DN=1;
          IF xbmicat <=3 THEN BMI=1;
```

```
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6) AND H09004>=2 THEN DO;
   GROUP=1;
   OUTPUT;
END;

* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF XENR_PCM IN (1,2,6) AND H09004>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;

* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF  XENR_PCM = 3 AND H09004>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;


* nonenrollees;
IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
   GROUP=4;                      /*JSO 07/30/2007, Added 9*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;         /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
   GROUP=6;         /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;

RUN;

proc freq;
table xservreg*cacsmpl/list;
run;


PROC SORT DATA=SMOKE;
BY TMP_CELL;
PROC SORT DATA=NORMDATA;
BY TMP_CELL;
RUN;

%MACRO A_SUDAAN(TABLEVAR,SMOKE,SMOKEVAR,DEN);

%IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
    %LET ENDNUM=&REGNUM;
    %LET PREF=R;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
    %LET ENDNUM=&CONNUM;
    %LET PREF=M;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
    %LET ENDNUM=&CONNUM;
```

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```
        %LET PREF=S;
     %END;
     %ELSE %IF %UPCASE(&TABLEVAR)=CACSMPL %THEN %DO;    /**RSG 02/2005 add code to calc by
CACSMPL**/
         %LET ENDNUM=&CATCHNUM;
         %LET PREF=D;
     %END;
     %ELSE %IF %UPCASE(&TABLEVAR)=TOTCON %THEN %LET PREF=C;

     %DO I = 1 %TO 8;

         DATA INDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA CACSMPL MPCSMPL
                        &SMOKEVAR. &DEN. TMP_CELL XTNEXREG);
         SET SMOKE;
         WHERE XSERVREG > 0 AND GROUP=&I. AND &DEN. >= 0;
            %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
                IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;
            %END;
            %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                IF TOTCON NE 1 THEN DELETE;
            %END;
            %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
                IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
            %END;
         RUN;


          DATA NORMDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA &SMOKEVAR. &DEN.
                          TMP_CELL XTNEXREG MPCSMPL);
             SET NORMDATA;
                 WHERE XSERVREG > 0 AND GROUP=&I.;

                 %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
                     IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;
                 %END;
            %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
                IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
            %END;

             RUN;

            %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                    PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                    WEIGHT &WGT;
                    SETENV DECWIDTH=4;
                    NEST TMP_CELL / missunit;
                    VAR &SMOKEVAR;
                    TABLES AGE_GRP*XSEXA*MPCSMPL*&TABLEVAR.;
                    SUBGROUP AGE_GRP XSEXA MPCSMPL &TABLEVAR.;
                    LEVELS 8 2 2 &ENDNUM.;
                    OUTPUT  SEMEAN MEAN wsum nsum
                            / TABLECELL=DEFAULT REPLACE
                                FILENAME=&PREF.GRP&I.&SMOKE.;
                    RUN;
            %END;
            %ELSE %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                    PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                    WEIGHT &WGT;
                    SETENV DECWIDTH=4;
                    NEST TMP_CELL / missunit;
                    VAR &SMOKEVAR;
                    TABLES AGE_GRP*XSEXA*MPCSMPL;
                    SUBGROUP AGE_GRP XSEXA MPCSMPL;
                    LEVELS 3 2 2;
                    OUTPUT  SEMEAN MEAN wsum nsum
                            / TABLECELL=DEFAULT REPLACE
                                FILENAME=&PREF.GRP&I.&SMOKE.;
                    RUN;
            %END;

        %IF %UPCASE(&SMOKE) NE CS %THEN %DO;

                DATA &PREF.SER_&I.&SMOKE.;
                SET &PREF.GRP&I.&SMOKE.;
```

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```
                    GROUP=&I.;
                    IF SEMEAN NE .;
                    %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                        KEEP &TABLEVAR. GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
                    %END;
                    %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                        TOTCON=1;
                        KEEP TOTCON GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
                    %END;
                RUN;

                /* CREATE WEIGHTS FROM 2005 DATA*/
                proc summary data=normdat&i. nway;
                    var &WGT;
                    where &den>0;
                    class age_grp xsexa MPCSMPL;
                    output out=norm_&i. sum=normwt;

                    proc sort data=&pref.ser_&i.&smoke.;
                    by age_grp xsexa mpcsmpl;

                    data &pref.ser_&i.&smoke.;
                    merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                    by age_grp xsexa mpcsmpl;
                    if gin;
                    wsum=wsum/normwt;
                    nsum=nsum/normwt;
                    sesq=normwt*semean**2;
                    run;

                    proc summary data=&pref.ser_&i.&smoke. nway;
                    var mean semean sesq wsum nsum;
                    class &tablevar.;
                    weight normwt;
                    output   out=&pref.sert&i.&smoke.   mean(mean   sesq)=   sum(wsum   nsum)=
sumwgt(semean)=;
                    run;

                data &pref.sert&i.&smoke;
                    set &pref.sert&i.&smoke;
                    group=&i.;
                        semean=sqrt(sesq/semean);
                    drop _type_ _freq_;
                run;

                %IF &I. = 1 %THEN %DO;

                    DATA &PREF._&SMOKE.;
                    SET &PREF.SERT&I.&SMOKE.;
                    RUN;
                %END;
                %ELSE %DO;

                    DATA &PREF._&SMOKE.;
                        SET &PREF._&SMOKE. &PREF.SERT&I.&SMOKE.;
                    RUN;

                    PROC SORT DATA=&PREF._&SMOKE.;
                    BY GROUP;
                    RUN;

                %END;

        %END;
                %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                        WEIGHT &WGT;
                        SETENV DECWIDTH=4;
                        NEST TMP_CELL / missunit;
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA*&TABLEVAR.;
                        SUBGROUP AGE_GRP XSEXA &TABLEVAR.;
                        LEVELS 3 2 &ENDNUM.;
                        OUTPUT  SEMEAN MEAN wsum nsum
```

```
                               / TABLECELL=DEFAULT REPLACE
                                 FILENAME=&PREF.GRP&I.&SMOKE.;
                     RUN;
          %END;
          %ELSE %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                     PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                     WEIGHT &WGT;
                     SETENV DECWIDTH=4;
                     NEST TMP_CELL / missunit;
                     VAR &SMOKEVAR;
                     TABLES AGE_GRP*XSEXA;
                     SUBGROUP AGE_GRP XSEXA;
                     LEVELS 3 2 ;
                     OUTPUT  SEMEAN MEAN wsum nsum
                               / TABLECELL=DEFAULT REPLACE
                                 FILENAME=&PREF.GRP&I.&SMOKE.;
                     RUN;
          %END;

      %IF %UPCASE(&SMOKE) = CS %THEN %DO;

             DATA &PREF.SER_&I.&SMOKE.;
             SET &PREF.GRP&I.&SMOKE.;
             GROUP=&I.;
             IF SEMEAN NE .;
             %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                 KEEP &TABLEVAR. GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
             %END;
             %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                 TOTCON=1;
                 KEEP TOTCON GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
             %END;
             RUN;

             /* CREATE WEIGHTS FROM 2005 DATA*/
             proc summary data=normdat&i. nway;
                  var &WGT;
                  where &den>0;
                  class age_grp xsexa;
                  output out=norm_&i. sum=normwt;

                  proc sort data=&pref.ser_&i.&smoke.;
                  by age_grp xsexa;

                  data &pref.ser_&i.&smoke.;
                  merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                  by age_grp xsexa;
                  if gin;
                  wsum=wsum/normwt;
                  nsum=nsum/normwt;
                  sesq=normwt*semean**2;
                  run;

                  proc summary data=&pref.ser_&i.&smoke. nway;
                  var mean semean sesq wsum nsum;
                  class &tablevar.;
                  weight normwt;
                  output   out=&pref.sert&i.&smoke.   mean(mean   sesq)=   sum(wsum   nsum)=
sumwgt(semean)=;
                  run;

             data &pref.sert&i.&smoke;
                set &pref.sert&i.&smoke;
                group=&i.;
                     semean=sqrt(sesq/semean);
                drop _type_ _freq_;
             run;
```

```
                %IF &I. = 1 %THEN %DO;

                DATA &PREF._CESS;
                SET &PREF.SERT&I.&SMOKE.;
                RUN;
                %END;
                %ELSE %DO;

                DATA &PREF._CESS;
                        SET &PREF._CESS &PREF.SERT&I.&SMOKE.;
                     RUN;

                PROC SORT DATA=&PREF._CESS;
                BY GROUP;
                RUN;

                %END;

        %END;
%END;

%MEND;

%A_SUDAAN(XSERVAFF,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVAFF,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVAFF,BM,BMI,BMI_DN);
%A_SUDAAN(XSERVREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVREG,BM,BMI,BMI_DN);
%A_SUDAAN(XTNEXREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XTNEXREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XTNEXREG,BM,BMI,BMI_DN);
%A_SUDAAN(TOTCON,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(TOTCON,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(TOTCON,BM,BMI,BMI_DN);
%A_SUDAAN(CACSMPL,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(CACSMPL,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(CACSMPL,BM,BMI,BMI_DN);

%MACRO ADDIT(PREF, TYPE);

DATA &PREF._&TYPE;
SET &PREF._&TYPE;
LENGTH BENEFIT $34. BENTYPE $50.;

BENEFIT="Healthy Behaviors";
    %IF &TYPE=RT %THEN %DO;
        BENTYPE="Non-Smoking Rate";
    %END;
    %IF &TYPE=CESS %THEN %DO;
        BENTYPE="Counselled To Quit";
    %END;
    %IF &TYPE = BM %THEN %DO;
        BENTYPE = "Percent Not Obese";
    %END;
RUN;

%MEND;

%ADDIT(C,RT);
%ADDIT(C,CESS);
%ADDIT(C,BM);
%ADDIT(M,RT);
%ADDIT(M,CESS);
%ADDIT(M,BM);
%ADDIT(R,RT);
%ADDIT(R,CESS);
%ADDIT(R,BM);
%ADDIT(S,RT);
%ADDIT(S,CESS);
%ADDIT(S,BM);
%ADDIT(D,RT);
%ADDIT(D,CESS);
%ADDIT(D,BM);
```

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```
proc freq data=ingp.group8 noprint;
tables cacsmpl*xservind / list out=cacformat(drop=count percent);
run;

%MACRO MAKEDATA(PREF, TABLEVAR);
  DATA &PREF._SMOKE;
   SET &PREF._RT
       &PREF._CESS
       &PREF._BM
;

   LENGTH MAJGRP $30. REGION REGCAT $25.;

    IF      GROUP=1 THEN MAJGRP="Prime Enrollees            ";
    ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
    ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
    ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
    ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
    ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
    ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
    ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

   %IF &TABLEVAR = XSERVAFF %THEN %DO;
       IF XSERVAFF = 1 THEN REGION = 'ARMY';
       IF XSERVAFF = 2 THEN REGION = 'AIR FORCE';
       IF XSERVAFF = 3 THEN REGION = 'NAVY';
       IF XSERVAFF = 4 THEN REGION = 'OTHER';
   %END;

   %IF &TABLEVAR = XSERVREG %THEN %DO;
           REGION = PUT(XSERVREG,SERVREGO.);  /*JSO  08/24/2006,  Create  new  format  for
Overseas*/
   %END;

   %IF &TABLEVAR = XTNEXREG %THEN %DO;
        IF XTNEXREG=1 THEN REGION="NORTH";
       ELSE IF XTNEXREG=2 THEN REGION="SOUTH";
       ELSE IF XTNEXREG=3 THEN REGION="WEST";
       ELSE IF XTNEXREG=4 THEN REGION="OVERSEAS";
   %END;

   %IF &TABLEVAR = TOTCON %THEN %DO;
        REGION = "USA MHS";
   %END;

  %IF &TABLEVAR = CACSMPL %THEN %DO;   /*RSG 02/2005 Add CACSMPL**/
        REGCAT = PUT(CACSMPL, CACR.);
        REGION = ' ';
        %END;

   %IF &TABLEVAR NE CACSMPL %THEN %DO;
        REGCAT=REGION;
        DROP GROUP &TABLEVAR;
        %END;

        %IF &TABLEVAR = CACSMPL %THEN %DO;   /*RSG 02/2005 Add CACSMPL**/
        REGCAT = PUT(CACSMPL, CACR.);
        REGION = ' ';
        %END;

   %IF &TABLEVAR NE CACSMPL %THEN %DO;
        REGCAT=REGION;
        DROP GROUP &TABLEVAR;
        %END;


   IF &TABLEVAR NE 0;

   RUN;

  %IF &TABLEVAR = CACSMPL %THEN %DO;

      PROC SORT DATA=&PREF._SMOKE;
```

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```
      BY CACSMPL;


      DATA &PREF._SMOKE;
      MERGE &PREF._SMOKE (IN=A) CACFORMAT (IN=B);
      BY CACSMPL;
      IF A;
      REGION=PUT(XSERVind,SERVREGO.);
     DROP GROUP &TABLEVAR XSERVREG;
      RUN;
   %END;


%MEND MAKEDATA;

%MAKEDATA(M,XSERVAFF);
%MAKEDATA(C,TOTCON);
%MAKEDATA(R,XSERVREG);
%MAKEDATA(S,XTNEXREG);
%MAKEDATA(D,CACSMPL);

DATA SMOKE;
SET M_SMOKE R_SMOKE S_SMOKE C_SMOKE D_SMOKE;
SESQ = SEMEAN**2;
RENAME MEAN=SCORE wsum=n_wgt nsum=n_obs;
RUN;

/* CALCULATE COMPOSITE SCORE - AVERAGE RATE AND CESSATION*/

PROC SORT DATA=SMOKE;
BY MAJGRP REGION REGCAT;
RUN;

PROC SUMMARY DATA=SMOKE SUM;
BY MAJGRP REGION REGCAT;
VAR SCORE SESQ N_WGT N_OBS;
OUTPUT SUM= OUT=PRECOMP;
RUN;

DATA COMP(RENAME=(S_MEAN=SCORE S_SE=SEMEAN));
SET PRECOMP;
IF _FREQ_ = 3 THEN DO;
   S_MEAN=SCORE/3;
   S_SE=SQRT(SESQ)/3;
   N_OBS=round(N_OBS/3);
END;
ELSE DO;
   S_MEAN=.;
   S_SE=.;
END;
BENTYPE="Composite";
BENEFIT="Healthy Behaviors";
DROP _TYPE_ _FREQ_ SCORE SESQ;
RUN;

PROC SORT DATA=SMOKE;
BY MAJGRP BENTYPE;
RUN;

DATA BENCH;
SET SMOKE;
BY MAJGRP BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   REGION="Benchmark";
```

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```
         REGCAT="Benchmark";
         DROP N_WGT N_OBS;
         OUTPUT;
      END;
      ELSE IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
         SCORE=&BMIGOAL;
         SEMEAN=.;
         REGION="Benchmark";
         REGCAT="Benchmark";
         DROP N_WGT N_OBS;
         OUTPUT;
         SCORE=(SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3;
         SEMEAN=.;
         REGION="Benchmark";
         REGCAT="Benchmark";
         BENTYPE="Composite";
         DROP N_WGT;
         OUTPUT;
      END;
      RUN;

      PROC SORT DATA=SMOKE;
      BY REGION BENTYPE;
      RUN;

      DATA TEMP;
      SET SMOKE;
      IF REGION=REGCAT;
      RUN;

      PROC SORT DATA=TEMP;
      BY REGION BENTYPE;
      RUN;

      DATA BENCH2;
      SET TEMP;
      BY REGION BENTYPE;
      IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
         SCORE=&CNSLGOAL;
         SEMEAN=.;
         MAJGRP="Benchmark";
         DROP N_WGT N_OBS;
         OUTPUT;
      END;
      IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
         SCORE=&NSMKGOAL;
         SEMEAN=.;
         MAJGRP="Benchmark";
         DROP N_WGT;
         OUTPUT;
      END;
      IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
         SCORE=&BMIGOAL;
         SEMEAN=.;
         MAJGRP="Benchmark";
         DROP N_WGT;
         OUTPUT;
         SCORE=(SUM(&CNSLGOAL, &NSMKGOAL, &BMIGOAL))/3;
         SEMEAN=.;
         MAJGRP="Benchmark";
         BENTYPE="Composite";
         DROP N_WGT N_OBS;
         OUTPUT;
      END;
      RUN;

      DATA SIG1;
      SET SMOKE COMP;
      IF BENTYPE='Non-Smoking Rate' THEN DO;
         IF SEMEAN > 0 THEN TSTAT=(SCORE-&NSMKGOAL)/SEMEAN;
         ELSE TSTAT=.;
         IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
         ELSE PVAL=.;
```

```
        IF PVAL GE 0.05 THEN SIG=0;
        ELSE IF PVAL < 0.05 THEN DO;
           IF SCORE > &NSMKGOAL THEN SIG = 1;
          ELSE IF SCORE < &NSMKGOAL THEN SIG = -1;
        END;
    END;
    IF BENTYPE='Counselled To Quit' THEN DO;
        IF SEMEAN > 0 THEN TSTAT=(SCORE-&CNSLGOAL)/SEMEAN;
        ELSE TSTAT=.;
        IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
        ELSE PVAL=.;
        IF PVAL GE 0.05 THEN SIG=0;
        ELSE IF PVAL < 0.05 THEN DO;
           IF SCORE > &CNSLGOAL THEN SIG = 1;
          ELSE IF SCORE < &CNSLGOAL THEN SIG = -1;
        END;
    END;
    IF BENTYPE='Percent Not Obese' THEN DO;
        IF SEMEAN > 0 THEN TSTAT=(SCORE-&BMIGOAL)/SEMEAN;
        ELSE TSTAT=.;
        IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
        ELSE PVAL=.;
        IF PVAL GE 0.05 THEN SIG=0;
        ELSE IF PVAL < 0.05 THEN DO;
           IF SCORE > &BMIGOAL THEN SIG = 1;
          ELSE IF SCORE < &BMIGOAL THEN SIG = -1;
        END;
    END;
    IF BENTYPE='Composite' THEN DO;
        IF SEMEAN > 0 THEN TSTAT=(SCORE-((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3)))/SEMEAN;
        ELSE TSTAT=.;
        IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
        ELSE PVAL=.;
        IF PVAL GE 0.05 THEN SIG=0;
        ELSE IF PVAL < 0.05 THEN DO;
           IF SCORE > ((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = 1;
          ELSE IF SCORE <((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = -1;
        END;
    END;

    DROP TSTAT PVAL;
    RUN;

    DATA SMOKE_ALL;
    SET SIG1 BENCH BENCH2;
    TIMEPD="&CURRENT.";
    RUN;

    PROC SORT DATA=SMOKE_ALL OUT=OUT.SMOKE;
    BY MAJGRP REGION REGCAT BENTYPE;
    RUN;
```

```
****************************************************************;
*  Project:   DoD Reporting and Analysis 6244-410
*  Program:   LOADMPR.SAS
*  Author:    Chris Rankin
*  Date:      4/07/2000
*  Modified: 1) 5/08/2001 -- standard errors retained in output data set.
*            2) 1/8/2003 by Keith Rathbun: Updated to accomodate the
*                2002 survey.
*            3) 1/30/2003 by Chris Rankin:  Updated to for trends from
*                2000, 2002 Annual.
*            4) 02/05/2004 by Mike Scott: Updated for 2003 Annual Report.
*                Uncommented Flu Shot and changed to Cholesterol.
*            5) 02/2005 by Regina Gramss: Updated for 2004 Annual Report.
*                Added codes for new "Region" fields.  Include smoke data
*                from smoking.sas program.
*            6) 02/2006 by Regina Gramss: Updated for 2005.  Dropped chol measure.
*            7) 11/07/2006 by Keith Rathbun: Changed REG loop control from
*                16 to 15 and format servregf to servrego.  Removed trend data
*                steps and obsolete code.
*
*  Purpose:   Calculate MPR Preventive Care Composites
*
*   Input:    RFINAL.SD2
*             CFINAL.SD2
*             MFINAL.SD2
*             DFINAL.SD2
*             SFINAL.SD2
*             SMOKE.SD2
*   Output:   loadmpr.sd2
****************************************************************;

OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2;

LIBNAME   INLIB   ".";
LIBNAME   OUT     ".";
LIBNAME   LIBRARY V612 "..\..\..\data\fmtlib";   /*MJS 02/05/04*/

%LET COMPNUM=7; /*** number of questions in both composites ***/
%LET CMPNUM1=4; /*** number of questions in first composite ***/   /*MJS 02/05/04*/

%LET YR=09;
%LET YEAR=2009;

%INCLUDE "..\..\LOADWEBV4\LOADCAHQ.INC";

****************************************************************;
*** Note -- take out access to care questions and composite ***;
****************************************************************;

DATA BENCHMKS(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SIG);
  FORMAT MAJGRP $30.  REGION $25. REGCAT $42.
         BENEFIT $34. BENTYPE $50. TIMEPD $35.;

  SET inlib.CFINAL;

  /***** Benchmarks       *****/

  ARRAY BENCHMK{*} GOALVAR1-GOALVAR&CMPNUM1 CP&yr.BMK1;
  DO I = 1 TO 5;   /*MJS 02/05/04*/
     SCORE   = BENCHMK{I}*100;
     SIG     = .;
     REGION  = "Benchmark";
     REGCAT  = "Benchmark";
     BENEFIT = "Preventive Care";
     IF     I = 1 THEN BENTYPE = "Prenatal Care";
     ELSE IF I = 2 THEN BENTYPE = "Mammography";
     ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
     ELSE IF I = 4 THEN BENTYPE = "Hypertension";
     /*ELSE IF I = 5 THEN BENTYPE = "Cholesterol Testing";*/   /*RSG 01/27/06*/
     ELSE IF I = 5 THEN BENTYPE = "Composite";
```

```
      TIMEPD = "&YEAR";   /*RSG 02/2005*/
      OUTPUT;
    END;
    DROP I;
RUN;

DATA BENCHMKS;
  SET BENCHMKS;
  OUTPUT;
  IF MAJGRP = "All Beneficiaries" THEN DO;
     DO REG = 1 TO 15; DROP REG;
            MAJGRP = "Benchmark";
            REGION = PUT(REG,SERVREGO.);
            REGCAT = PUT(REG,SERVREGO.);
            OUTPUT;
      END;
      DO SERV = 1 TO 4; DROP SERV;
          MAJGRP = "Benchmark";
          REGION = PUT(SERV,XSERVAFF.);
          REGCAT = PUT(SERV,XSERVAFF.);
          OUTPUT;
      END;
    MAJGRP = "Benchmark";
    REGION = 'CONUS MHS';
    REGCAT = 'CONUS MHS';
    OUTPUT;
    MAJGRP = "Benchmark";
    REGION = 'NORTH';
    REGCAT = 'NORTH';
    OUTPUT;
    MAJGRP = "Benchmark";
    REGION = 'SOUTH';
    REGCAT = 'SOUTH';
    OUTPUT;
    MAJGRP = "Benchmark";
    REGION = 'WEST';
    REGCAT = 'WEST';
    OUTPUT;
    MAJGRP = "Benchmark";
    REGION = 'OVERSEAS';
    REGCAT = 'OVERSEAS';
    OUTPUT;
  END;
RUN;

PROC FREQ DATA=BENCHMKS;
   TABLES MAJGRP/MISSING LIST;
RUN;

************************;
***** Scores        **;
************************;

DATA DFINAL;
  SET INLIB.DFINAL;
  WHERE UPCASE(TRIM(MAJGRP)) IN ("PRIME ENROLLEES", "ENROLLEES WITH MILITARY PCM",
                                 "ACTIVE DUTY", "ALL BENEFICIARIES");
RUN;

DATA SCORES(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG N_OBS N_WGT);
  FORMAT MAJGRP $30.  REGION $25. REGCAT $42.
         BENEFIT $34. BENTYPE $50. TIMEPD $35.;
  SET INLIB.MFINAL
      INLIB.RFINAL
      DFINAL
      INLIB.SFINAL
      INLIB.CFINAL;
IF REGCAT='Out of Catchment Region 01' then REGCAT='Out of Catchment North Region';
IF REGCAT='Out of Catchment Region 02' then REGCAT='Out of Catchment South Region';
IF REGCAT='Out of Catchment Region 03' then REGCAT='Out of Catchment West Region';
IF REGCAT='Out of Catchment Region 04' then REGCAT='Out of Catchment OCONUS Region';

  ARRAY SEMEANS{*} SERR&YR.V1-SERR&YR.V&CMPNUM1.  CP&YR.1SE ;
  ARRAY  SCORES{*} SCOR&YR.V1-SCOR&YR.V&CMPNUM1.  Comp&YR.1;
```

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```
   ARRAY  SIGNIF{*} SIG&YR.V1-SIG&YR.V&CMPNUM1.    CP&YR.SIG1;
   ARRAY   NOBS {*} NOBS&YR.V1-NOBS&YR.V&CMPNUM1.  CP&YR.OBS1;
   ARRAY   NWGT {*} DEN&YR.V1-DEN&YR.V&CMPNUM1     CP&YR.DEN1;
   cp&YR.den1=0;
   DO I = 1 TO 5;   /*MJS 02/05/04*/
      SCORE  = SCORES{I};
      SEMEAN = SEMEANS{I};
      SIG    = SIGNIF{I};
      N_OBS  = NOBS{I};
      N_WGT  = NWGT{I};
      if i<5 then cp&YR.den1+nwgt[i];
      BENEFIT = "Preventive Care";
      IF      I = 1 THEN BENTYPE = "Prenatal Care";
      ELSE IF I = 2 THEN BENTYPE = "Mammography";
      ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
      ELSE IF I = 4 THEN BENTYPE = "Hypertension";
      /*ELSE IF I = 5 THEN BENTYPE = "Cholesterol Testing";*/   /*RSG 01/27/06*/
      ELSE IF I = 5 THEN DO;
           BENTYPE = "Composite";  /*RSG 02/2005*/
           score=score*100;
      END;;
    TIMEPD = "&YEAR";
      OUTPUT;
   END;
RUN;


PROC FREQ DATA=SCORES;
   WHERE UPCASE(TRIM(MAJGRP)) IN ("PRIME ENROLLEES", "ENROLLEES WITH MILITARY PCM",
                                  "ACTIVE DUTY", "ALL BENEFICIARIES");
   TABLES MAJGRP*REGCAT;
RUN;


DATA OUT.LOADMPR(KEEP=MAJGRP REGION REGCAT BENEFIT semean BENTYPE SCORE SIG
                      N_OBS N_WGT TIMEPD);
  SET BENCHMKS SCORES INLIB.SMOKE;
  IF REGCAT='Naval Health Care New England' then REGCAT='NACC Newport';
RUN;
```

```
*********************************************************************
*
*  Project:   DoD Reporting and Analysis 6244-410
*  Program:   TRENDMPR.SAS
*  Author:    Chris Rankin
*  Date:      6/19/2000
*
*  Modified:  1) 02/21/2001
*                trend calculation changed
*             2) 01/29/2003 By Keith Rathbun, Chris Rankin: Updated to
*                calculate trends based on 2000 to 2002.
*             3) 02/10/2004 By Mike Scott: Updated for 2003 Annual Report.
*             4) 02/2005 By Regina Gramss: Updated for 2004 Annual Report.
*                added codes to use XSERVREG for region.
*             5) 02/2006 By Regina Gramss: Updated for 2005.  Remove
*                cholesterol as a measure.
*
*  Purpose:   Calculate trends from 2007 to 2009.
*
*  Outputs:   RTREND.sas7bdat
*             MTREND.sas7bdat
*             CTREND.sas7bdat
*             STREND.sas7bdat
*             DTREND.sas7bdat
*
*  Inputs:    RFINAL.sas7bdat
*             CFINAL.sas7bdat
*             MFINAL.sas7bdat
*             SFINAL.sas7bdat
*             DFINAL.sas7bdat
*
*  Notes:     1) Next program is loadmpr.sas.
*
******************************************************************;
OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2;

%LET YR = 09;
%LET EYR = 07;

LIBNAME IN&YR   ".";
LIBNAME IN&EYR. "..\..\20&EYR.\ReportCards\MPR_Adult20&EYR.";
LIBNAME OUT     ".";
LIBNAME LIBRARY "..\..\..\data\fmtlib";

%LET COMPNUM=7;     /** number of variables - 02/2006 RSG - changed from 8 to 7 because
cholesterol dropped   **/

**** Note:  groups changed 6/16/2000 to correspond with ;
**** definition of CAHPS groups                        ;

************************************************************;
* Beneficiary group note
*    Eight groups            Definitions
* _____;
* 1. Prime enrollees         XINSCOV IN (1,2,6) AND H08007>=2
* 2. Enrollees w/mil PCM      XENR_PCM IN (2,6)  AND H08007>=2
* 3. Enrollees w/civ PCM      XENR_PCM=3         AND H08007>=2
* 4. Nonenrollees            XINSCOV IN (3)
* 5. Active duty             BFGROUPP=1
* 6. Active duty dependents  BFGROUPP=2
* 7. Retirees                BFGROUPP IN (3,4)
* 8. All beneficiaries       ALL
************************************************************;

/*** macro to merge final datasets together and calculate trends ***/

%MACRO TRENDS(INDATA, OUTDATA);

  PROC SORT DATA=IN&EYR..&INDATA;
    BY MAJGRP REGION REGCAT;
```

```
   RUN;

   PROC SORT DATA=IN&YR..&INDATA;
      BY MAJGRP REGION REGCAT;
   RUN;

   DATA OUT.&OUTDATA;
      MERGE IN&YR..&INDATA(IN=IN_&YR.) IN&EYR..&INDATA(IN=IN_&EYR.);
      BY MAJGRP REGION REGCAT;
      IF IN_&YR. & IN_&EYR.;

      /*** calculate trends in the composite benchmarks ***/
      ARRAY   BMK&YR.{*} CP&YR.BMK1 CP&YR.BMK2;
      ARRAY   BMK&EYR.{*} CP&EYR.BMK1 CP&EYR.BMK2;
      ARRAY BMKTRND{*} TRNDBMK1 TRNDBMK2;

      DO J=1 TO 2;
         IF BMK&EYR.{J} > 0 THEN BMKTRND{J}=100*(BMK&YR.{J}-BMK&EYR.{J});
         ELSE BMKTRND{J}=.;
      END;
      DROP J;

      /*** note-- don't use adjusted scores ***/
      ARRAY SCORE&YR.{*} PROP&YR.V1-PROP&YR.V&COMPNUM COMP&YR.1 COMP&YR.2;
      ARRAY SCORE&EYR.{*} PROP&EYR.V1-PROP&EYR.V&COMPNUM COMP&EYR.1 COMP&EYR.2;
      ARRAY  SERR&YR.{*} SERR&YR.V1-SERR&YR.V&COMPNUM CP&YR.1SE  CP&YR.2SE;
      ARRAY  SERR&EYR.{*} SERR&EYR.V1-SERR&EYR.V&COMPNUM CP&EYR.1SE  CP&EYR.2SE;
      ARRAY    TREND{*} TRENDV1-TRENDV&COMPNUM   CMPTRND1 CMPTRND2;
      ARRAY    TSTAT{*} T_TRNDV1-T_TRNDV&COMPNUM T_CTRND1 T_CTRND2;
      ARRAY  PVALUE{*} P_TRNDV1-P_TRNDV&COMPNUM P_CTRND1 P_CTRND2;
      ARRAY     SIG{*} SIGTRND1-SIGTRND&COMPNUM SIGCPTR1 SIGCPTR2;
      ARRAY DEGFR&YR.{*} DF&YR.SCR1-DF&YR.SCR&COMPNUM DF&YR._CP1 DF&YR._CP2;
      ARRAY DEGFR&EYR.{*} DF&EYR.SCR1-DF&EYR.SCR&COMPNUM DF&EYR._CP1 DF&EYR._CP2;
      ARRAY     DEGF{*} DFSCOR1-DFSCOR&COMPNUM DF_COMP1 DF_COMP2;
      ARRAY    DENOM{*} DENOMT1-DENOMT&COMPNUM DENOMTC1 DENOMTC2;
      ARRAY    DEN&EYR.{*} DEN&EYR.V1-DEN&EYR.V&COMPNUM CP&EYR.DEN1 CP&EYR.DEN2;
      ARRAY    DEN&YR.{*} DEN&YR.V1-DEN&YR.V&COMPNUM CP&YR.DEN1 CP&YR.DEN2;
      ARRAY     NWGT{*} NWGT1-NWGT&COMPNUM NWGTC1 NWGTC2;

      /*** setup t statistics, degreees of freedom    ***/
      DO I=1 TO 9;
         IF SCORE&EYR.{I} GE 0 AND SCORE&YR.{I} GE 0 THEN DO;
            IF SCORE&EYR.{I} > 0 THEN TREND{I}=100*(SCORE&YR.{I}-SCORE&EYR.{I});
            ELSE TREND{I}=.;
            DENOM{I}= SERR&EYR.{I}**2+SERR&YR.{I}**2;
            IF DENOM{I} > 0 THEN
               TSTAT{I}=(SCORE&YR.{I}-SCORE&EYR.{I})/SQRT(DENOM{I});
            ELSE TSTAT{I}=.;
            DEGF{I}=MIN(DEGFR&YR.{I},DEGFR&EYR.{I});
            NWGT{I}=MIN(DEN&YR.{I},DEN&EYR.{I});
            IF DEGF{I}=0 THEN DEGF{I}=1;
            IF DEGF{I}IN (0, .) THEN
            PUT "MAJGRP=" MAJGRP "REGCAT=" REGCAT "REGION=" REGION
            "DEGFR&EYR.=" DEGFR&EYR.{I} "DEGFR&YR.=" DEGFR&YR.{I};
            PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
            IF TREND{I}=. THEN SIG{I}=.;
            ELSE IF TREND{I} NE . THEN DO;
               IF PVALUE{I} GE .05 THEN SIG{I}=0;
               IF PVALUE{I} < .05  THEN DO;
                  IF TSTAT{I} > 0 THEN SIG{I}=1;
                  IF TSTAT{I} < 0 & TSTAT{I} ne . THEN SIG{I}=-1;
               END;
            END;
         END;
      END;
      DROP I;
   RUN;

%MEND TRENDS;

%TRENDS(MFINAL, MTREND);
%TRENDS(RFINAL, RTREND);
%TRENDS(CFINAL, CTREND);
%TRENDS(SFINAL, STREND);
```

```
%TRENDS(DFINAL, DTREND);
```

```
/*************************************************************************/
/* PROJECT:  6244-410 - 2006 Annual Beneficiary Reports          */
/* PROGRAM:  FAKE.SAS                                            */
/* PURPOSE:  Generate Fake Data for Report Cards                 */
/* AUTHOR:   Mark A. Brinkley                                    */
/*                                                               */
/* MODIFIED: 1) July 2000 By Eric Schone to utilize CACRPT and CATREP */
/*              include files.                                   */
/*           2) January 2002 By Keith Rathbun: Updated to support the */
/*              2000 Annual HCSDB format.                        */
/*           3) January 2003 By Keith Rathbun: Updated to support the */
/*              2002 Annual HCSDB format.  Delete flu shot, increment */
/*              previous years by 1, added 2002.                */
/*           4) February 2004 By Mike Scott: Updated for 2003 Annual */
/*              Report. Uncommented Flu Shot and changed it to   */
/*              Cholesterol.                                     */
/*           5) February 2005 By Regina Gramss: Updated for 2004   */
/*              annual report.  Include smoking scores and use   */
/*              XSERVREG for region fields.                      */
/*           6) November 7, 2006 by Keith Rathbun: Updated for 2006. */
/*              Added in the quarterly overseas updates.         */
/*           7) November 13, 2007 by Keith Rathbun: Updated parameters*/
/*              for 2007.                                        */
/*           8) November 5, 2008 by Mike Rudacille: Update parameters */
/*              for 2008.                                        */
/*                                                               */
/*************************************************************************/

     LIBNAME OUT '.';
     LIBNAME IN  '..\ReportCardsV3\CAHPS_Adult2009\Data';  /*** Changed to group8 location for
revised cacsmpl KRR 02-05-2004 ***/
     LIBNAME LIBRARY V612 '..\..\DATA\FMTLIB';

     OPTIONS COMPRESS=YES NOFMTERR;

     %include "loadcahq.inc";

     /*RSG 02/2005 added to make fake.sd2 with macros*/
     %LET NUMQTR = 4;  /*RSG 02/2005 - Numbering based off quarterly program*/
     %LET PERIOD1 = 2007;
     %LET PERIOD2 = 2008;
     %LET PERIOD3 = 2009;
     %LET PERIOD4 = Trend;

     DATA TEMP;
        SET IN.GROUP8(KEEP=XSERVind XSERVAFF XTNEXREG USA CACSMPL);  /*KRR 02/05/04*/
     RUN;

     ****************************************************************************
     * CACSMPL FORMAT DEFINITIONS FOR REPORT CARD USE FACILITY NAME
     * RSG - 02/2005 - USE CACR FORMAT FROM LIBRARY
     ****************************************************************************;

     proc freq data=temp;
        table xservind*cacsmpl/ noprint out=temp2;
     run;

     data temp3;
        length cafmt $42;
        set temp2 end=last; by xservind;
        caf=0;
        where cacsmpl ne 9999;
        if first.xservind then do;
           cafmt=put(xservind,servrego.);
           output;
        end;
        cafmt=put(cacsmpl,cacr.);
        caf=1;
        if count>1 & cafmt ne 'INV' then output;
        if last then do;
           xservind=0;
```

```
caf=0;
cafmt='Benchmark';
output;

caf=1;


xservind=16;
cafmt = 'ARMY';
output;

xservind=17;
cafmt = 'AIR FORCE';
output;

xservind=18;
cafmt = 'NAVY';
output;

xservind=19;
cafmt = 'OTHER';
output;

xservind=20;
cafmt = 'NORTH';
output;

xservind=21;
cafmt = 'SOUTH';
output;

xservind=22;
cafmt = 'WEST';
output;

xservind=23;
cafmt = 'OVERSEAS';
output;

xservind=24;
cafmt = 'Europe Army';
output;

xservind=25;
cafmt = 'Europe Air Force';
output;

xservind=26;
cafmt = 'Europe Navy';
output;

xservind=27;
cafmt = 'Europe Other';
output;

xservind=28;
cafmt = 'Pacific Army';
output;

xservind=29;
cafmt = 'Pacific Air Force';
output;

xservind=30;
cafmt = 'Pacific Navy';
output;

xservind=31;
cafmt = 'Pacific Other';
output;

xservind=32;
cafmt = 'Latin America Army';
output;
```

```
         xservind=33;
         cafmt = 'Latin America Air Force';
         output;

         xservind=34;
         cafmt = 'Latin America Navy';
         output;

         xservind=35;
         cafmt = 'Latin America Other';
         output;

         xservind=36;
         cafmt = 'USA MHS';
         output;
      end;
   run;

   proc sort; by xservind caf cafmt; run;

   data temp4;
      set temp3 end=last;
      start=_n_; label=cafmt; type='N'; fmtname='ROWMAT';
      if last then call symput('x',_n_);
   run;

   proc format cntlin=temp4;
   proc print data=temp4;


   RUN;

   %MACRO FAKE;
   DATA FAKE;

     KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD I K;   ***MJS 06/18/03 Added TIMEPD;

     LENGTH MAJGRP  $ 30
            REGION  $ 25    /*RSG 01/2005 lengthen format to fit service affiliation*/
            REGCAT  $ 42
            BENTYPE $ 50
            TIMEPD  $ 5;    ***MJS 06/18/03 Added TIMEPD;



     DO I=1 TO 8;            ** 8 Major groups **;

        MAJGRP=PUT(I,MAJGRPF.);

        DO J=1 TO &x;        ** Region/catchment **;

        REGCAT=PUT(J,ROWMAT.);
        RETAIN REGION;

        **RSG 01/2005 Change code to fit XSERVREG values**;
        IF REGCAT IN ('ARMY','NAVY','AIR FORCE','OTHER',
                    'NORTH','SOUTH','WEST','OVERSEAS','USA MHS',
                    'Overseas Europe','Overseas Pacific','Overseas Latin America',
                    'North Army','North Navy','North Air Force','North Other',
                    'South Army','South Navy','South Air Force','South Other',
                    'West Army','West Navy','West Air Force','West Other',
                    'Europe Army', 'Europe Navy', 'Europe Air Force', 'Europe Other',
                    'Pacific Army', 'Pacific Navy', 'Pacific Air Force', 'Pacific Other',
                    'Latin America Army', 'Latin America Navy', 'Latin America Air Force',
'Latin America Other')
             THEN REGION=REGCAT;

           DO K=1 TO 12;      ** 12 Benefits **;  /*** 12-13 MAB ***/

              BENEFIT=PUT(K,BEN.);

              IF K=1 THEN DO;
```

```
                    DO L=1 TO 5;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,GETNCARE.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;
                ELSE IF K=2 THEN DO;
                    DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,GETCAREQ.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;
                ELSE IF K=3 THEN DO;
                    DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,CRTSHELP.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;
                ELSE IF K=4 THEN DO;
                    DO L=1 TO 5;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,HOWWELL.);    ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;

                ELSE IF K=6 THEN DO;
                    DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,CLMSPROC.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;
                ELSE IF K=7 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                           ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=8 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                           ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=9 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;   ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                           ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=10 THEN DO;
```

```
                    %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                               ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
              END;
              ELSE IF K=11 THEN DO;
                    DO L=1 TO 5;                 ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,PREVCARE.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
          END;
              ELSE IF K=12 THEN DO;            ***RSG 02/2005 Added for smoking scores.;
                    DO M=1 TO 4;
                        BENTYPE=PUT(M,SMOKEF.);
                        %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT;
                        %END;
                    END;
              END;
            END;
          END;
        END;
      RUN;
      %MEND FAKE;
      %FAKE;

      /*** 12-13 MAB ***/
      /*** Need to create single benchmarks for ALL major groups ***/
      DATA EXTRA;
        SET FAKE;
        IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
        MAJGRP="Benchmark";
      RUN;
      /*** Combine extra data with fake ***/
      DATA FAKE;
        SET EXTRA FAKE;
        IF REGCAT="Benchmark" THEN REGION=REGCAT;
      RUN;

      /*** Need to clean up data ***/
      DATA FAKE2;
        SET FAKE;

        /*** Need to set oddball records to missing ***/
        if region=''|compress(regcat)='.' then delete;

        /*** Don't populate catchment areas for 4 major groups ***/
        IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;
        SIG = .;
        SCORE = .;

        DROP I K;
      RUN;

      /*RSG 02/2005 ORDER FILE*/

      DATA ORDER1;
        SET FAKE2;
        IF MAJGRP = "Benchmark" THEN DELETE;

        IF MAJGRP = "Prime Enrollees" THEN LINEUP=1;
        IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=2;
        IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=3;
        IF MAJGRP = "Standard/Extra Users" THEN LINEUP=4;
        IF MAJGRP = "Active Duty" THEN LINEUP=5;
        IF MAJGRP = "Active Duty Dependents" THEN LINEUP=6;
        IF MAJGRP = "Retirees and Dependents" THEN LINEUP=7;
```

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```
    IF MAJGRP = "All Users" THEN LINEUP=8;

    IF REGION = "Benchmark" THEN LINEUP1=1;
    ELSE IF UPCASE(REGION) = 'USA MHS' THEN LINEUP1=2;

    ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP1=3;
    ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP1=4;
    ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP1=5;
    ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP1=6;

    ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP1=7;
    ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP1=8;
    ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP1=9;
    ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP1=10;
    ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP1=11;

    ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP1=12;
    ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP1=13;
    ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP1=14;
    ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP1=15;
    ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP1=16;

    ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP1=17;
    ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP1=18;
    ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP1=19;
    ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP1=20;
    ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP1=21;

    ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP1=22;

    ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP1=23;
    ELSE IF UPCASE(REGION) = 'EUROPE ARMY' THEN LINEUP1=24;
    ELSE IF UPCASE(REGION) = 'EUROPE NAVY' THEN LINEUP1=25;
    ELSE IF UPCASE(REGION) = 'EUROPE AIR FORCE' THEN LINEUP1=26;
    ELSE IF UPCASE(REGION) = 'EUROPE OTHER' THEN LINEUP1=27;

    ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP1=28;
    ELSE IF UPCASE(REGION) = 'PACIFIC ARMY' THEN LINEUP1=29;
    ELSE IF UPCASE(REGION) = 'PACIFIC NAVY' THEN LINEUP1=30;
    ELSE IF UPCASE(REGION) = 'PACIFIC AIR FORCE' THEN LINEUP1=31;
    ELSE IF UPCASE(REGION) = 'PACIFIC OTHER' THEN LINEUP1=32;

    ELSE IF UPCASE(REGION) = 'OVERSEAS LATIN AMERICA' THEN LINEUP1=33;
    ELSE IF UPCASE(REGION) = 'LATIN AMERICA ARMY' THEN LINEUP1=34;
    ELSE IF UPCASE(REGION) = 'LATIN AMERICA NAVY' THEN LINEUP1=35;
    ELSE IF UPCASE(REGION) = 'LATIN AMERICA AIR FORCE' THEN LINEUP1=36;
    ELSE IF UPCASE(REGION) = 'LATIN AMERICA OTHER' THEN LINEUP1=37;

    ELSE LINEUP1=38;

    IF REGION=REGCAT THEN LINEUP2=1;
    ELSE LINEUP2=2;

RUN;    ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

PROC SORT DATA=ORDER1 OUT=OUT.FAKE (DROP=LINEUP LINEUP1 LINEUP2);
BY LINEUP LINEUP1 LINEUP2 REGCAT;
RUN;

PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  MERGFINL.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKE.SD2.
*
* WRITTEN:  06/07/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/09/2002 BY KEITH RATHBUN: Updated to support the 2000
*              annual HCSDB.
*           2) 01/07/2002 BY KEITH RATHBUN: Updated to support the 2002
*              annual HCSDB.
*           3) 02/08/2004 BY CHRIS RANKIN:  Updated to support the 2003
*              annual HCSDB.
*           4) 11/07/2006 BY KEITH RATHBUN: Updated to support the 2006
*              annual HCSDB.
*           4) 11/13/2007 BY KEITH RATHBUN: Updated to support the 2007
*              annual HCSDB.
*           5) 11/5/2008 BY MIKE RUDACILLE: Updated to support the 2008
*              annual HCSDB.
*
* INPUTS:   1) MPR and CAHPS Individual and Composite data sets with adjusted
*              scores, and benchmark data for DoD HCS.
*              - LOADMPR.SD2  - MPR Scores Databases
*              - LOADCAHP.SD2 - CAHPS Scores Databases
*              - BENCHA04.SD2 - CAHPS Benchmark Databases
*              - FAKE.SD2     - WEB Layout in Column order
*
* OUTPUT:   1) MERGFINL.SD2 - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) The following steps need to be run prior to this
*    program (2005,2006,2007):
*  - STEP1.SAS       - Recode questions and generate CAHPS group files
*  - STEP2.SAS       - Calculate CAHPS individual adjusted scores for groups 1-8
*  - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*  - PRVCOMP.SAS     - Calculate MPR individual and composite scores
*  - SMOKING_BMI.SAS - Calculate MPR smoking and BMI scores
*  - BENCHA01-04.SAS - Convert Benchmark Scores into WEB layout
*  - LOADCAHP.SAS    - Convert CAHPS Scores Database into WEB layout
*
* 2) The output file (MERGFINL.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;
LIBNAME IN01  ".";
LIBNAME IN02  ".";
LIBNAME IN03  "..\2007\LOADWEB";
LIBNAME IN04  "..\2008\LOADWEB";
LIBNAME IN05  "..\REPORTCARDSV4\MPR_ADULT2009";
LIBNAME IN06  "..\2007\REPORTCARDS\MPR_ADULT2007";
LIBNAME IN07  "..\2008\REPORTCARDS\MPR_ADULT2008";
LIBNAME IN08  "..\BENCHMARKV3\DATA";
LIBNAME IN09  "..\2007\BENCHMARK\DATA";
LIBNAME IN10  "..\2008\BENCHMARK\DATA";
LIBNAME OUT   ".";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

%LET PERIOD7 = 2007;
%LET PERIOD8 = 2008;
%LET PERIOD9 = 2009;


*****************************************************************************
* Construct ORDERing variable from WEB layout
*****************************************************************************;
```

```
DATA ORDER;
   SET IN01.FAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

******************************************************************************
* Merge the Scores Databases
******************************************************************************;
DATA MERGFINL;
   SET IN02.LOADCAHP (IN=INCAHP09)
       IN03.LOADCAHP (IN=INCAHP07)
       IN04.LOADCAHP (IN=INCAHP08)
       IN05.LOADMPR  (IN=INMPR09)
       IN06.LOADMPR  (IN=INMPR07)
       IN07.LOADMPR  (IN=INMPR08)
       IN08.BENCHA04 (IN=INBEN09)
       IN09.BENCHA04 (IN=INBEN07)
       IN10.BENCHA04 (IN=INBEN08);
   SVCAHP09 = INCAHP09;
   SVCAHP07 = INCAHP07;
   SVCAHP08 = INCAHP08;
   SVMPR09  = INMPR09 ;
   SVMPR07  = INMPR07 ;
   SVMPR08  = INMPR08 ;
   SVBEN09  = INBEN09 ;
   SVBEN07  = INBEN07 ;
   SVBEN08  = INBEN08 ;

   LENGTH KEY $200;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   IF SCORE = . THEN DELETE;
   IF TRIM(REGCAT) = "INV" THEN DELETE;
RUN;

PROC SORT DATA=MERGFINL; BY KEY; RUN;

******************************************************************************
* Append ORDERing variable to the merged Scores database file
******************************************************************************;
DATA MERGFINL2 out.MISSING;
   MERGE MERGFINL(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHP09 = 1 THEN SOURCE = "CAHPS &PERIOD9.";
   IF SVCAHP08 = 1 THEN SOURCE = "CAHPS &PERIOD8.";
   IF SVCAHP07 = 1 THEN SOURCE = "CAHPS &PERIOD7.";
   IF SVMPR09  = 1 THEN SOURCE = "MPR &PERIOD9.  ";
   IF SVMPR08  = 1 THEN SOURCE = "MPR &PERIOD8.  ";
   IF SVMPR07  = 1 THEN SOURCE = "MPR &PERIOD7.  ";
   IF SVBEN09  = 1 THEN SOURCE = "BENCHMARK &PERIOD9.";
   IF SVBEN08  = 1 THEN SOURCE = "BENCHMARK &PERIOD8.";
   IF SVBEN07  = 1 THEN SOURCE = "BENCHMARK &PERIOD7.";

   IF IN1 AND NOT IN2 THEN OUTPUT out.MISSING; *Missing from layout;
   IF IN1 AND ORDER NE . THEN OUTPUT MERGFINL2;
RUN;

******************************************************************************
```

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```
* Reorder file according to WEB layout
**************************************************************************;
PROC SORT DATA=MERGFINL2 OUT=OUT.MERGFINL; BY ORDER; RUN;

DATA FAKE;
SET IN01.FAKE;
   ORDER = _N_;
RUN;

DATA LAYONLY;
   MERGE FAKE(IN=IN1) OUT.MERGFINL(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "2009 DOD Health Survey Scores/Report Cards (6244-410)";
TITLE2 "Program Name: MERGFINL.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINL.sas7bdat - Merged Final Scores Database for input to
MAKEHTML.SAS";

TITLE5 "MERGFINL.sas7bdat Data source counts";
PROC FREQ DATA=OUT.MERGFINL;
  TABLES SOURCE FLAG

  SVCAHP09 SVCAHP08 SVCAHP07
  SVMPR09  SVMPR08  SVMPR07
  SVBEN09  SVBEN08  SVBEN07

  SVCAHP09 * SVCAHP08 * SVCAHP07 *
  SVMPR09  * SVMPR08  * SVMPR07  *
  SVBEN09  * SVBEN08  * SVBEN07

 /MISSING LIST;
RUN;

TITLE5 "MERGFINL.sas7bdat Data attribute counts";
PROC FREQ DATA=OUT.MERGFINL;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "LAYONLY.sas7bdat Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKE.sas7bdat)";
PROC PRINT DATA=OUT.MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

```
*******************************************************************************
*
*  PROGRAM:  CONUS_Q.SAS
*  TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
*  PURPOSE:  Generate CAHPS CONUS scores and perform significance tests.
*
*  WRITTEN:  11/13/2000 BY KEITH RATHBUN, Adapted from CONUS_A.SAS.
*            Merged SIGNIF_A.SAS funtionality.
*
*  MODIFIED: 1) 01/07/2002 BY KEITH RATHBUN, Updated for 2000 annual consumer
*               reports.
*            2) 01/27/2003 BY KEITH RATHBUN, Updated for 2002 annual consumer
*               reports.
*            3) 02/08/2004 BY CHRIS RANKIN, Updated for 2003 annual consumer
*               reports.
*            4) 11/14/2007 BY KEITH RATHBUN, Updated for 2007 annual consumer
*               reports.
*
*    INPUTS: 1) MERGFINL.SD2 - Scores Database in WEB Layout
*            2) FAKE.SD2 - Scores Database WEB Layout
*            3) CONUS_A.SD2 - Previous years Combined CAHPS/MPR Scores Database in WEB
layout
*
*    OUTPUT: 1) CONUS_Q.SD2 - Combined CAHPS/MPR Scores Database in WEB layout
*            2) LT30Q.SD2 - Records with <= 30 observations
*
*     NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS   - Recode questions and generate group files
*    - STEP2.SAS    - Calculate individual adjusted scores for group 1-8
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*    - MERGFINL.SAS - Merge the final CAHPS and MPR Scores Databases
*
*******************************************************************************
* Assign data libraries and options
*******************************************************************************;
LIBNAME IN1 ".";
LIBNAME OUT ".";

*LIBNAME IN1 V612 "l:\2005\programs\loadweb";
*LIBNAME OUT V612 "l:\2005\programs\loadweb";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

*******************************************************************************
*******************************************************************************
*
* Process Macro Input Parameters:
*
* 1) BENTYPE = Benefit Type
* 2) MAJGRP = Major Group
* 3) TYPE = INDIVIDUAL or COMPOSITE
* 4) BENEFIT = COMPOSITE Benefit Type
*
*******************************************************************************
*******************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
*******************************************************************************;
%LET DSN = MERGFINL;

DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;
%LET FLAG = 0;

%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
   SET PRETEMP END=FINISHED;
```

```
    %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
        WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             REGION NOT IN("Benchmark","CONUS MHS") AND
             REGCAT NOT IN("Benchmark","CONUS MHS") AND
             REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
    %END;
    %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
        WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             BENEFIT = "&BENEFIT" AND
             REGION NOT IN("Benchmark","CONUS MHS") AND
             REGCAT NOT IN("Benchmark","CONUS MHS") AND
             REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
    %END;
    %ELSE %DO;
        PUT "ERROR: Invalid Type = &TYPE";
    %END;

    IF SUBSTR(REGION,1,5) IN ('North','South') THEN DO;
       IF SUBSTR(REGION,1,5)='North' THEN REGCON=1;
      ELSE IF SUBSTR(REGION,1,5)='South' THEN REGCON=2;
       TOTCON=1;
       IF SUBSTR(REGION,7,4)='Army' THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,7,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,7,4)='Navy' THEN SERVICE=3;
      ELSE SERVICE=4;
    END;
    ELSE IF SUBSTR(REGION,1,4)='West' THEN DO;
       REGCON=3;
       TOTCON=1;
       IF SUBSTR(REGION,6,4)='Army' THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,6,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,6,4)='Navy' THEN SERVICE=3;
      ELSE SERVICE=4;
    END;
   ELSE IF SUBSTR(REGION,1,6)='Europe' THEN DO;
       REGCON=4;
       TOTCON=2;
       IF      SUBSTR(REGION,8,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,8,9)='Air Force'  THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,8,4)='Navy'       THEN SERVICE=3;
      ELSE                                         SERVICE=4;
    END;
       ELSE IF SUBSTR(REGION,1,7)='Pacific' THEN DO;
       REGCON=5;
       TOTCON=2;
       IF      SUBSTR(REGION,9,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,9,9)='Air Force'  THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,9,4)='Navy'       THEN SERVICE=3;
      ELSE                                         SERVICE=4;
    END;
    ELSE IF SUBSTR(REGION,1,13)='Latin America' THEN DO;
       REGCON=6;
       TOTCON=2;
       IF      SUBSTR(REGION,15,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,15,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,15,4)='Navy'      THEN SERVICE=3;
      ELSE                                         SERVICE=4;
    END;

RUN;

************************************************************************;
* RSG 01/2005 Calc. total Service Affiliation Scores       *;
************************************************************************;
PROC SORT DATA=TEMP;
BY SERVICE;

DATA TEMP2;
   SET TEMP;
   BY SERVICE;
      length key $200;
   IF FIRST.SERVICE THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
```

```
        SUMSE2 = 0;       RETAIN SUMSE2;
        SUMWGT2 = 0;      RETAIN SUMWGT2;
        N_OBS1 = 0;       RETAIN N_OBS1;
     END;

     IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
     IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
     IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
     IF N_OBS  NE . THEN N_OBS1 + N_OBS;


KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

     IF LAST.SERVICE THEN DO;

        IF SUMWGT1 NOTIN (.,0) THEN DO;
          SCORE  = SUMSCOR1/SUMWGT1;
          SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
        END;
        ELSE DO;
          SCORE  = .;
          SEMEAN = .;
        END;

        N_OBS  = N_OBS1;
        N_WGT  = SUMWGT1;
        SOURCE  = "CONUS";
        FLAG    = "CONUS";
        IF SERVICE=1 THEN REGION = "ARMY";
        IF SERVICE=2 THEN REGION = "AIR FORCE";
        IF SERVICE=3 THEN REGION = "NAVY";
        IF SERVICE=4 THEN REGION = "OTHER";

        REGCAT  = REGION;
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
        OUTPUT;
     END;
RUN;
**************************************************************************;
* RSG 01/2005 Calc. Total Region scores                               *;
**************************************************************************;
PROC SORT DATA=TEMP;
BY REGCON;
DATA TEMP3;
   SET TEMP;
   BY REGCON;
      length key $200;
   IF FIRST.REGCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.REGCON THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
        SCORE  = SUMSCOR1/SUMWGT1;
        SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
        SCORE  = .;
```

```
        SEMEAN  = .;
      END;
      N_OBS  = N_OBS1;
      N_WGT  = SUMWGT1;
      SOURCE  = "REGION";
      FLAG    = "REGION";
      IF REGCON=1 THEN REGION = "NORTH";
      IF REGCON=2 THEN REGION = "SOUTH";
      IF REGCON=3 THEN REGION = "WEST";
      IF REGCON=4 THEN REGION = "Overseas Europe";
      IF REGCON=5 THEN REGION = "Overseas Pacific";
      IF REGCON=6 THEN REGION = "Overseas Latin America";
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
    END;
RUN;


************************************************************************;
* RSG 01/2005 Calc. Total CONUS Scores                                *;
************************************************************************;
PROC SORT DATA=TEMP;
BY TOTCON;
DATA TEMP4;
   SET TEMP END=FINISHED;BY TOTCON;
      length key $200;
   IF FIRsT.Totcon THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;
   ************************************************************************
   * Calculate for CONUS and OCONUS
   ************************************************************************;

      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;

   IF LAST.TOTCON THEN GOTO FINISHED;
   RETURN;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   FINISHED:
      IF SUMWGT1 NOTIN (.,0) THEN DO;
        SCORE   = SUMSCOR1/SUMWGT1;
        SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
        SCORE   = .;
        SEMEAN  = .;
      END;
      N_OBS  = N_OBS1;
      N_WGT  = SUMWGT1;
      IF TOTCON=1 THEN DO;
      SOURCE  = "CONUS";
      FLAG    = "CONUS";
      REGION = "CONUS MHS";
      END;
      IF TOTCON=2 THEN Do;
      SOURCE="OVERSEAS";
      FLAG="OVERSEAS";
      REGION="OVERSEAS";
      END;
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
```

```
                   UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
          OUTPUT;
      RUN;

      %IF &FLAG = 0 %THEN %DO;
         DATA FINAL;
            SET INIT TEMP2 TEMP3 TEMP4;
         RUN;
      %END;
      %ELSE %DO;
         DATA FINAL;
            SET FINAL TEMP2 TEMP3 TEMP4;
         RUN;
      %END;
      %LET FLAG = 1;

      %MEND;

      %MACRO CALLIT(TIMEPD=);

      DATA PRETEMP;
      SET IN1.&DSN.;
      IF TIMEPD="&TIMEPD";
      RUN;

      ****************************************************************************
      * Create CONUS for Active Duty - Individual
      ****************************************************************************;
      %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting Information                ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);

      ****************************************************************************
      * Create CONUS for Active Duty Dependents - Individual
      ****************************************************************************;
      %PROCESS(BENTYPE=Claims Handled Correctly                    ,MAJGRP=Active Duty Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Courteous  Customer  Service                ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Explains  so  You  Can  Understand          ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting  Information                        ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting  to  See  a  Specialist             ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting  Treatment                          ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Listens  Carefully                          ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Shows  Respect                              ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Spends  Time  with  You                     ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait  for  Routine  Visit                   ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait  for  Urgent  Care                     ,MAJGRP=Active  Duty  Dependents,
TYPE=INDIVIDUAL);

      ****************************************************************************
      * Create CONUS for Enrollees with Civilian PCM - Individual
      ****************************************************************************;
      %PROCESS(BENTYPE=Claims Handled Correctly             ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
```

```
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Enrollees with Military PCM - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Non-enrolled Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
```

```
    %PROCESS(BENTYPE=Wait for Routine Visit              ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Prime Enrollees - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims  Handled  Correctly                ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=Prime   Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service             ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand        ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                    ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist          ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                     ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                     ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows  Respect                         ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                 ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit               ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                 ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Retirees and Dependents - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly               ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service            ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand       ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                   ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist         ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                    ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                    ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows  Respect                        ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit              ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                ,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for All Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims  Handled  Correctly                ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=All   Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service             ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand        ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                    ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
```

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```
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist                ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                             ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                             ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows  Respect                                 ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                        ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit                      ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                        ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Process Quarterly CONUS Composites
    ****************************************************************************
    ****************************************************************************
    * Create CONUS for Claims Processing - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                        ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                      ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);

    ****************************************************************************
    * Create CONUS for Customer Service - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                        ,
TYPE=COMPOSITE,BENEFIT=Customer  Service);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                      ,
TYPE=COMPOSITE,BENEFIT=Customer Service);

    ****************************************************************************
    * Create CONUS for Getting Care Quickly - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                        ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees     with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
```

```
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime    Enrollees                                  ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                    ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);

    ****************************************************************************
    * Create CONUS for Getting Needed Care - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty                                       ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",    MAJGRP=Active    Duty    Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Enrollees      with      Civilian       PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Enrollees      with      Military       PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Non-enrolled        Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime    Enrollees                                  ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                    ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);

    ****************************************************************************
    * Create CONUS for Health Care - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty                                       ,
TYPE=COMPOSITE,BENEFIT=Health   Care);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",    MAJGRP=Active    Duty    Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Enrollees      with      Civilian       PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Enrollees      with      Military       PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Non-enrolled        Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime    Enrollees                                  ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                    ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=Health Care);

    ****************************************************************************
    * Create CONUS for Health Plan - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty                                       ,
TYPE=COMPOSITE,BENEFIT=Health   Plan);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",    MAJGRP=Active    Duty    Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Enrollees      with      Civilian       PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Enrollees      with      Military       PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",         MAJGRP=Non-enrolled        Beneficiaries         ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime    Enrollees                                  ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                    ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=Health Plan);

    ****************************************************************************
    * Create CONUS for How Well Doctors Communicate - Quarterly
    ****************************************************************************;
```

```
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                                      ,
TYPE=COMPOSITE,BENEFIT=How   Well   Doctors   Communicate);          ***MJS  07/08/03   Changed
BENTYPE="&PERIOD4" to BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                        ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees    with    Civilian    PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees    with    Military    PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Non-enrolled     Beneficiaries      ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                 ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents                    ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",    MAJGRP=All   Beneficiaries                              ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);

     ****************************************************************************
     * Create CONUS for Primary Care Manager - Quarterly
     ****************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                                      ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees    with    Civilian    PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees    with    Military    PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Non-enrolled     Beneficiaries      ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                 ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents                    ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",    MAJGRP=All   Beneficiaries                              ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);

     ****************************************************************************
     * Create CONUS for Specialty Care - Quarterly
     ****************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                                      ,
TYPE=COMPOSITE,BENEFIT=Specialty  Care);        ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees    with    Civilian    PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees    with    Military    PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled      Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                 ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents                    ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",    MAJGRP=All   Beneficiaries                              ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);

     %MEND;
     %CALLIT(TIMEPD=2009); /*KRR 11/14/2007*/
     %CALLIT(TIMEPD=2008); /*KRR 11/14/2007*/
     %CALLIT(TIMEPD=2007); /*KRR 11/14/2007*/

     ****************************************************************************
     * Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
     * as place holders for missing records.  FAKE will be used for adding
     * new records.
     ****************************************************************************;
     DATA FAKE;
        SET IN1.FAKE;
        SIG = .;
        SCORE = .;
```

```
   ORDER = _N_;
   LENGTH KEY $200.;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   IF BENEFIT='Total' THEN DELETE;

RUN;
PROC SORT DATA=FAKE OUT=TEMPQ;        BY KEY; RUN;
PROC SORT DATA=FAKE(KEEP=ORDER KEY); BY KEY; RUN;

*****************************************************************************
* Append BENCHMARK records to CAHPS records and perform significance tests
*****************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE timepd);
   SET IN1.&DSN;
   WHERE REGION = "Benchmark" AND SVMPR07=0 AND SVMPR08=0 AND SVMPR09=0; /*KRR 11/14/2007*/
RUN;
Data abnchmrk(keep=benefit bentype timepd ascore);
set benchmrk;
where majgrp='All Beneficiaries';
rename score=ascore;
run;
proc sort; by benefit bentype timepd;
proc sort data=benchmrk; by benefit bentype timepd;
data benchmrk;
merge benchmrk abnchmrk; by benefit bentype timepd;

PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE timepd; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA CONUS_Q;
   MERGE FINAL(IN=IN1 DROP=ORDER) FAKE(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE timepd; RUN;

*****************************************************************************
* Perform significance tests for CONUS scores
*****************************************************************************;
DATA SIGTEST1;
   MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE timepd;
   LENGTH KEY $200.;
*%include "offset.inc";
*%include "l:\2005\programs\loadweb\offset.inc";
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   ELSE TEST = .;
   SIG = 0;
   IF TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   SOURCE = "CONUS_Q";
   FLAG   = "CONUS_Q";
   score=score+ascore-bscore;
   IF SIN;
RUN;
PROC SORT DATA=SIGTEST1; BY KEY; RUN;

*****************************************************************************
* Extract CAHPS scores to perform significance tests
*****************************************************************************;
DATA CAHPS MPR;
   SET IN1.&DSN;
   *****************************************************************
   * Significance tests have already been performed for MPR scores,
   * so remove from file.
   *****************************************************************;
```

```
   IF SVMPR07 = 1|svmpr08=1|svmpr09=1 THEN OUTPUT MPR; /*KRR 11/14/2007*/
   IF SVMPR07 = 0 & svmpr08 = 0 & svmpr09 = 0 THEN OUTPUT CAHPS; /*KRR 11/14/2007*/
RUN;

PROC SORT DATA=CAHPS;
   BY MAJGRP BENEFIT BENTYPE timepd;
RUN;

*****************************************************************************
* Perform significance tests for CAHPS scores
*****************************************************************************;
DATA SIGTEST2;
   MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE timepd;
*%include "offset.inc";
*%include "l:\2005\programs\loadweb\offset.inc";
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   ELSE TEST = .;
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
   score=score+ascore-bscore;
RUN;
PROC SORT DATA=SIGTEST2; BY KEY; RUN;

PROC SORT DATA=MPR; BY KEY; RUN;

*****************************************************************************
* Combine previously created records with the new file
*****************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 MPR;
   BY KEY;
   *****************************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   *****************************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

*****************************************************************************
* Create place holders for missing records
*****************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

*****************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
*****************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE;
   BY KEY;

   IF BENEFIT NE "Preventive Care" THEN SCORE = SCORE*100;
RUN;

PROC SORT DATA=CONUS_Q OUT=OUT.CONUS_Q; BY ORDER; RUN;

TITLE1 "Annual 2008 DOD Health Survey Scores/Report Cards (6077-410)";
TITLE2 "Program Name: CONUS_Q.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MERGFINL.sas7bdat - Scores Database in WEB Layout";
TITLE4 "Program Outputs: CONUS_Q.sas7bdat - CONUS Scores Database in WEB layout";
```

```
PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

```
******************************************************************************
*
* PROGRAM:   TREND_A.SAS
* TASK:      2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:   Add TREND records to Scores database.
*
* WRITTEN:  07/28/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 02/21/2001 BY KEITH RATHBUN -- updated calculation for
*              trend score (DSCORE).
*           2) 01/07/2002 BY KEITH RATHBUN -- updated for 2000 survey.
*              Use 1998/2000 pairs to caclulate trends.
*           3) 01/27/2003 BY KEITH RATHBUN -- updated for 2002 survey.
*              Use 2000/2002 pairs to caclulate trends.
*           4) 02/08/2004 BY CHRIS RANKIN -- updated for 2003 survey.
*              Use 2001/2003 pairs to caclulate trends.
*           5) 02/2005 BY REGINA GRAMSS -- updated for 2004 survey,
*              include smoking cessation trend calculation,
*              put patch in for to order properly.
*           6) 02/2006 BY REGINA GRAMSS -- update for 2005.  Use
*              second set of scores using "old" weights to calculate
*              trend.
*           7) 11/14/2007 BY KEITH RATHBUN -- updated for 2007 survey.
*
* INPUTS:    1) CONUS_Q.SD2 - MPR and CAHPS Scores Database in WEB layout
*            2) FAKE.SD2 - Scores Database WEB Layout
*
* OUTPUT:    1) TREND_A.SD2 - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) All of the scores DB programs must be run and MERGFINL.SAS prior to
*    running this program.  All report card records must be merged prior
*    to the trend calculations (MERGFINL.SAS,CONUS_Q.SAS,TOTAL_A.SAS).
*
* 2) The output file (TREND_A.SD2) will be run through the
*    MAKEHTML.SAS program to generate the HTML consumer reports.
*
******************************************************************************
* Assign data libraries and options
******************************************************************************;

LIBNAME IN   ".";
LIBNAME OUT  ".";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER ERRORS=10000;
/*RSG 02/2005 code copied from 2003 TOTAL_Ar.SAS - eliminate all records
  with semean>.05 or missing and delete all records for that region/regcat
  this will reduce the number of missing data*/

/* MER 11/17/08 semean threshold was changed to .07 */

data fakecut(keep=region regcat);
set in.conus_q;
where majgrp='Prime Enrollees' & region ne regcat
 & benefit='Health Plan' & timepd='2009'; *MER 11/5/2008 changed timepd to 2008;
if semean>.07|semean=.|regcat='31st Med Grp-Aviano'|regcat='374th Med Grp-Yokota AB';

proc sort; by region regcat;
data fake;
set in.fake;
oorder=_n_;
proc sort data=fake; by region regcat;
data newfake;
merge fakecut(in=fin) fake; by region regcat;
if fin then delete;
proc sort data=newfake out=out.newfake; by oorder;
run;

******************************************************************************
* Extract records to calculate TRENDs.  Keep only 2001/2003 pairs for CAHPS
```

```
* records.  Trends have already been calculated for MPR scores.
****************************************************************************;

DATA TRENDS;
   SET IN.CONUS_Q (drop=key);        * MER 11/5/2008, changed 2005,2007 ;
   WHERE TIMEPD IN ('2007','2009'); * to 2007,2009;
   ****************************************************************************
   * Trends already calculated for MPR scores, so remove from file
   * (RSG 02/2005) EXCEPT Healthy Behavior scores whose trend need to be calculated
   ****************************************************************************;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));

   *MER 11/5/2008, changed svmpr05/07/07 to svmpr07/07/08;
   IF (SVMPR07 = 1 or SVMPR08 = 1 or SVMPR09 = 1)
      AND BENEFIT NE 'Healthy Behaviors' THEN DELETE;

RUN;

DATA TEMP07;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE ;
   IF TIMEPD = "2007";
RUN;
PROC SORT DATA=TEMP07; BY MAJGRP REGION REGCAT BENEFIT BENTYPE; RUN;

DATA TEMP09;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF TIMEPD = "2009";
RUN;
PROC SORT DATA=TEMP09; BY MAJGRP REGION REGCAT BENEFIT BENTYPE; RUN;

DATA PAIR0709(keep=majgrp region regcat benefit bentype);
   MERGE TEMP07(IN=IN07) TEMP09(IN=IN09);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF IN07 AND IN09;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
RUN;

DATA TRENDS2;
   MERGE TRENDS(IN=INTREND) PAIR0709(IN=INPAIR);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF INTREND AND INPAIR;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD;
RUN;
  proc print data=trends(obs=100);
****************************************************************************
* Calculate TRENDs keeping only the TREND records
****************************************************************************;

DATA TRENDS bench;
   SET TRENDS(drop=bscore bsemean);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD;
   IF TIMEPD = '2007' THEN DO;
      SCORE07 = SCORE/100;
      SE07    = SEMEAN;
      N07     = N_OBS;
      W07     = N_WGT;
   END;
   RETAIN SCORE07 SE07 N07 W07;
   IF TIMEPD = '2009' THEN DO;
      SCORE09 = SCORE/100;
      SE09    = SEMEAN;
      N09     = N_OBS;
      W09     = N_WGT;
```

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```
   END;
   RETAIN SCORE09 SE09 N09 W09;
   LENGTH KEY $200.;
   IF TIMEPD = '2009' THEN DO;
      TIMEPD = "Trend";
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
      SOURCE = "TREND";
      SEMEAN = SQRT(SE07**2+SE09**2);
      N_OBS  = MIN(N07,N09);
      N_WGT  = MIN(W07,W09);
      SCORE  = SCORE09-SCORE07;
      DSCORE = 100*(SCORE09-SCORE07);
      if region='Benchmark' then OUTPUT bench;
      else output trends;
   END;
   DROP ORDER SCORE07 SCORE09 SE07 SE09 N07 N09;
RUN;


PROC SORT DATA=trends;
   BY MAJGRP BENEFIT BENTYPE TIMEPD;
RUN;
proc sort data=bench out=benchs(keep=majgrp benefit bentype timepd score semean);
by majgrp benefit bentype timepd;
run;

*****************************************************************************
* Perform significance tests for CAHPS scores
*****************************************************************************;
DATA trends;
   MERGE trends(IN=SIN) BENCHs(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   if bsemean=. then bsemean=0;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
RUN;

data trends;
set trends bench;
score=dscore;
PROC SORT DATA=TRENDS; BY KEY; RUN;

*****************************************************************************
* Construct ORDERing variable from WEB layout
* (RSG 02/2005 add fix to order it properly
*****************************************************************************;
DATA ORDER;
 SET IN.newFAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

DATA MERGTRND;
   MERGE TRENDS(IN=IN1) ORDER(IN=IN2);
   BY KEY;
   IF IN1 and in2;
RUN;

PROC SORT DATA=IN.CONUS_Q OUT=CONUS_Q;
by key;run;
data conus_q;
    merge conus_q order(in=gin); by key;
```

```
        if gin;
    proc sort data=CONUS_Q; by order;
    PROC SORT DATA=MERGTRND; BY ORDER; RUN;

    DATA OUT.TREND_A;
        update MERGTRND CONUS_Q;
        BY ORDER;

        IF  BENEFIT  =  "Primary  Care  Manager"  THEN  BENEFIT  =  "Personal  Doctor";       /*MJS
02/13/2003*/

        IF REGCAT = "5th Med Grp-Minot" THEN REGION = "West Air Force";
        IF substr(region,1,5) in ('Latin','Europ','Pacif') then delete;

    RUN;

    TITLE1 "2008 DOD Health Survey Scores/Report Cards (6244-410)";
    TITLE2 "Program Name: TREND_A.SAS By Keith Rathbun";
    TITLE3 "Program Inputs: MPR and CAHPS data records in WEB Layout";
    TITLE4 "Program Outputs: TREND_A.sas7bdat - Merged Final Scores Database with TRENDs for
input to SIGNIF_A.SAS";

    TITLE5 "FREQs of TREND_A.sas7bdat";
    PROC FREQ;
        TABLES SOURCE FLAG MAJGRP REGION BENEFIT BENTYPE
        /MISSING LIST;
    RUN;

    TITLE5 "FREQs of newFAKE.sas7bdat";
    PROC FREQ DATA=IN.newFAKE;
        TABLES MAJGRP REGION BENEFIT BENTYPE
        /MISSING LIST;
    RUN;
```

```
/************************************************************************/
/* PROJECT:  6244-410 - 2006 Annual Beneficiary Reports         */
/* PROGRAM:  FAKE.SAS                                           */
/* PURPOSE:  Generate Fake Data for Report Cards                */
/* AUTHOR:   Mark A. Brinkley                                   */
/*                                                              */
/* MODIFIED: 1) July 2000 By Eric Schone to utilize CACRPT and CATREP */
/*              include files.                                  */
/*           2) January 2002 By Keith Rathbun: Updated to support the */
/*              2000 Annual HCSDB format.                       */
/*           3) January 2003 By Keith Rathbun: Updated to support the */
/*              2002 Annual HCSDB format.  Delete flu shot, increment */
/*              previous years by 1, added 2002.               */
/*           4) February 2004 By Mike Scott: Updated for 2003 Annual  */
/*              Report. Uncommented Flu Shot and changed it to  */
/*              Cholesterol.                                    */
/*           5) February 2005 By Regina Gramss: Updated for 2004     */
/*              annual report.  Include smoking scores and use  */
/*              XSERVREG for region fields.                     */
/*           6) November 7, 2006 by Keith Rathbun: Updated for 2006.  */
/*              Added in the quarterly overseas updates.        */
/*           7) November 13, 2007 by Keith Rathbun: Updated parameters*/
/*              for 2007.                                       */
/*           8) November 5, 2008 by Mike Rudacille: Update parameters */
/*              for 2008.                                       */
/*                                                              */
/************************************************************************/

    LIBNAME OUT '.';
    LIBNAME IN  '..\ReportCardsV4\CAHPS_Adult2009\Data';  /*** Changed to group8 location for
revised cacsmpl KRR 02-05-2004 ***/
    LIBNAME LIBRARY  '..\..\DATA\FMTLIB';

    OPTIONS COMPRESS=YES NOFMTERR;

    %include "loadcahq.inc";

    /*RSG 02/2005 added to make fake.sd2 with macros*/
    %LET NUMQTR = 4;  /*RSG 02/2005 - Numbering based off quarterly program*/
    %LET PERIOD1 = 2007;
    %LET PERIOD2 = 2008;
    %LET PERIOD3 = 2009;
    %LET PERIOD4 = Trend;

    DATA TEMP;
       SET IN.GROUP8(KEEP=XSERVind XSERVAFF XTNEXREG USA CACSMPL);   /*KRR 02/05/04*/
    RUN;

    *****************************************************************************
    * CACSMPL FORMAT DEFINITIONS FOR REPORT CARD USE FACILITY NAME
    * RSG - 02/2005 - USE CACR FORMAT FROM LIBRARY
    *****************************************************************************;

    proc freq data=temp;
       table xservind*cacsmpl/ noprint out=temp2;
    run;

    data temp3;
       length cafmt $42;
       set temp2 end=last; by xservind;
       caf=0;
       where cacsmpl ne 9999;
       if first.xservind then do;
          cafmt=put(xservind,servrego.);
          output;
       end;
       cafmt=put(cacsmpl,cacr.);
       caf=1;
       if count>1 & cafmt ne 'INV' then output;
       if last then do;
          xservind=0;
```

```
caf=0;
cafmt='Benchmark';
output;

caf=1;


xservind=16;
cafmt = 'ARMY';
output;

xservind=17;
cafmt = 'AIR FORCE';
output;

xservind=18;
cafmt = 'NAVY';
output;

xservind=19;
cafmt = 'OTHER';
output;

xservind=20;
cafmt = 'NORTH';
output;

xservind=21;
cafmt = 'SOUTH';
output;

xservind=22;
cafmt = 'WEST';
output;

xservind=23;
cafmt = 'OVERSEAS';
output;

xservind=24;
cafmt = 'Europe Army';
output;

xservind=25;
cafmt = 'Europe Air Force';
output;

xservind=26;
cafmt = 'Europe Navy';
output;

xservind=27;
cafmt = 'Europe Other';
output;

xservind=28;
cafmt = 'Pacific Army';
output;

xservind=29;
cafmt = 'Pacific Air Force';
output;

xservind=30;
cafmt = 'Pacific Navy';
output;

xservind=31;
cafmt = 'Pacific Other';
output;

xservind=32;
cafmt = 'Latin America Army';
output;
```

```
        xservind=33;
        cafmt = 'Latin America Air Force';
        output;

        xservind=34;
        cafmt = 'Latin America Navy';
        output;

        xservind=35;
        cafmt = 'Latin America Other';
        output;

        xservind=36;
        cafmt = 'USA MHS';
        output;
     end;
   run;

   proc sort; by xservind caf cafmt; run;

   data temp4;
      set temp3 end=last;
      start=_n_; label=cafmt; type='N'; fmtname='ROWMAT';
      if last then call symput('x',_n_);
   run;

   proc format cntlin=temp4;
   proc print data=temp4;


   RUN;

   %MACRO FAKE;
   DATA FAKE;

     KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD I K;   ***MJS 06/18/03 Added TIMEPD;

     LENGTH MAJGRP  $ 30
            REGION  $ 25    /*RSG 01/2005 lengthen format to fit service affiliation*/
            REGCAT  $ 42
            BENTYPE $ 50
            TIMEPD  $ 5;   ***MJS 06/18/03 Added TIMEPD;



     DO I=1 TO 8;             ** 8 Major groups **;

        MAJGRP=PUT(I,MAJGRPF.);

        DO J=1 TO &x;         ** Region/catchment **;

        REGCAT=PUT(J,ROWMAT.);
        RETAIN REGION;

        **RSG 01/2005 Change code to fit XSERVREG values**;
        IF REGCAT IN ('ARMY','NAVY','AIR FORCE','OTHER',
                      'NORTH','SOUTH','WEST','OVERSEAS','USA MHS',
                      'Overseas Europe','Overseas Pacific','Overseas Latin America',
                      'North Army','North Navy','North Air Force','North Other',
                      'South Army','South Navy','South Air Force','South Other',
                      'West Army','West Navy','West Air Force','West Other',
                      'Europe Army', 'Europe Navy', 'Europe Air Force', 'Europe Other',
                      'Pacific Army', 'Pacific Navy', 'Pacific Air Force', 'Pacific Other',
                      'Latin America Army', 'Latin America Navy', 'Latin America Air Force',
'Latin America Other')
             THEN REGION=REGCAT;


           DO K=1 TO 11;      ** 11 Benefits **;  /*** 12-13 MAB ***/

              BENEFIT=PUT(K,BEN.);

              IF K=1 THEN DO;
```

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```
                DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                    BENTYPE=PUT(L,GETNCARE.);    ***that replaced BENTYPE hard assignment;
                    %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                    %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                END;
            END;
            ELSE IF K=2 THEN DO;
                DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                    BENTYPE=PUT(L,GETCAREQ.);    ***that replaced BENTYPE hard assignment;
                    %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                    %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                END;
            END;
            ELSE IF K=3 THEN DO;
                DO L=1 TO 5;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                    BENTYPE=PUT(L,HOWWELL.);    ***that replaced BENTYPE hard assignment;
                    %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                    %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                END;
            END;
            ELSE IF K=4 THEN DO;
                DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                    BENTYPE=PUT(L,CUSTSERV.);    ***that replaced BENTYPE hard assignment;
                    %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                    %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                END;
            END;
            ELSE IF K=5 THEN DO;
                DO L=1 TO 3;                    ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                    BENTYPE=PUT(L,CLMSPROC.);    ***that replaced BENTYPE hard assignment;
                    %DO Q = 1 %TO &NUMQTR;      ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                    %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                END;
            END;
            ELSE IF K=6 THEN DO;
                %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                    BENTYPE = "Composite";    ***MJS 07/07/03 Added;
                    TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/    ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                %END;                          ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
            END;
            ELSE IF K=7 THEN DO;
                %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                    BENTYPE = "Composite";    ***MJS 07/07/03 Added;
                    TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/    ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                %END;                          ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
            END;
            ELSE IF K=8 THEN DO;
                %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
                    BENTYPE = "Composite";    ***MJS 07/07/03 Added;
                    TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/    ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                %END;                          ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
            END;
            ELSE IF K=9 THEN DO;
                %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for annual -
only go back 2 years;
```

```
                        BENTYPE = "Composite";    ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/    ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                                ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=10 THEN DO;
                    DO L=1 TO 5;                         ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,PREVCARE.);    ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;    ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;    ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
            END;
                ELSE IF K=11 THEN DO;             ***RSG 02/2005 Added for smoking scores.;
                    DO M=1 TO 4;
                        BENTYPE=PUT(M,SMOKEF.);
                        %DO Q = 1 %TO &NUMQTR;     ***RSG 02/2005 Changed start point to 2 for
annual - only go back 2 years;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT;
                        %END;
                    END;
                END;
            END;
        END;
    END;
    RUN;
    %MEND FAKE;
    %FAKE;

    /*** 12-13 MAB ***/
    /*** Need to create single benchmarks for ALL major groups ***/
    DATA EXTRA;
      SET FAKE;
      IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
      MAJGRP="Benchmark";
    RUN;
    /*** Combine extra data with fake ***/
    DATA FAKE;
      SET EXTRA FAKE;
      IF REGCAT="Benchmark" THEN REGION=REGCAT;
    RUN;

    /*** Need to clean up data ***/
    DATA FAKE2;
      SET FAKE;

      /*** Need to set oddball records to missing ***/
      if region=''|compress(regcat)='.' then delete;

      /*** Don't populate catchment areas for 4 major groups ***/
      IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;
      SIG = .;
      SCORE = .;

      DROP I K;
    RUN;

    /*RSG 02/2005 ORDER FILE*/

    DATA ORDER1;
      SET FAKE2;
      IF MAJGRP = "Benchmark" THEN DELETE;

      IF MAJGRP = "Prime Enrollees" THEN LINEUP=1;
      IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=2;
      IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=3;
      IF MAJGRP = "Standard/Extra Users" THEN LINEUP=4;
      IF MAJGRP = "Active Duty" THEN LINEUP=5;
      IF MAJGRP = "Active Duty Dependents" THEN LINEUP=6;
      IF MAJGRP = "Retirees and Dependents" THEN LINEUP=7;
      IF MAJGRP = "All Users" THEN LINEUP=8;
```

```
   IF REGION = "Benchmark" THEN LINEUP1=1;
   ELSE IF UPCASE(REGION) = 'USA MHS' THEN LINEUP1=2;

   ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP1=3;
   ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP1=4;
   ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP1=5;
   ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP1=6;

   ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP1=7;
   ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP1=8;
   ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP1=9;
   ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP1=10;
   ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP1=11;

   ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP1=12;
   ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP1=13;
   ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP1=14;
   ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP1=15;
   ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP1=16;

   ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP1=17;
   ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP1=18;
   ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP1=19;
   ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP1=20;
   ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP1=21;

   ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP1=22;

   ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP1=23;
   ELSE IF UPCASE(REGION) = 'EUROPE ARMY' THEN LINEUP1=24;
   ELSE IF UPCASE(REGION) = 'EUROPE NAVY' THEN LINEUP1=25;
   ELSE IF UPCASE(REGION) = 'EUROPE AIR FORCE' THEN LINEUP1=26;
   ELSE IF UPCASE(REGION) = 'EUROPE OTHER' THEN LINEUP1=27;

   ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP1=28;
   ELSE IF UPCASE(REGION) = 'PACIFIC ARMY' THEN LINEUP1=29;
   ELSE IF UPCASE(REGION) = 'PACIFIC NAVY' THEN LINEUP1=30;
   ELSE IF UPCASE(REGION) = 'PACIFIC AIR FORCE' THEN LINEUP1=31;
   ELSE IF UPCASE(REGION) = 'PACIFIC OTHER' THEN LINEUP1=32;

   ELSE IF UPCASE(REGION) = 'OVERSEAS LATIN AMERICA' THEN LINEUP1=33;
   ELSE IF UPCASE(REGION) = 'LATIN AMERICA ARMY' THEN LINEUP1=34;
   ELSE IF UPCASE(REGION) = 'LATIN AMERICA NAVY' THEN LINEUP1=35;
   ELSE IF UPCASE(REGION) = 'LATIN AMERICA AIR FORCE' THEN LINEUP1=36;
   ELSE IF UPCASE(REGION) = 'LATIN AMERICA OTHER' THEN LINEUP1=37;

   ELSE LINEUP1=38;

   IF REGION=REGCAT THEN LINEUP2=1;
   ELSE LINEUP2=2;

RUN;   ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

PROC SORT DATA=ORDER1 OUT=OUT.FAKE (DROP=LINEUP LINEUP1 LINEUP2);
BY LINEUP LINEUP1 LINEUP2 REGCAT;
RUN;

PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

```
****************************************************************************
*
* PROGRAM:  MERGFINL.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKE.SD2.
*
* WRITTEN:  06/07/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 01/09/2002 BY KEITH RATHBUN: Updated to support the 2000
*              annual HCSDB.
*           2) 01/07/2002 BY KEITH RATHBUN: Updated to support the 2002
*              annual HCSDB.
*           3) 02/08/2004 BY CHRIS RANKIN:  Updated to support the 2003
*              annual HCSDB.
*           4) 11/07/2006 BY KEITH RATHBUN: Updated to support the 2006
*              annual HCSDB.
*           4) 11/13/2007 BY KEITH RATHBUN: Updated to support the 2007
*              annual HCSDB.
*           5) 11/5/2008 BY MIKE RUDACILLE: Updated to support the 2008
*              annual HCSDB.
*
* INPUTS:   1) MPR and CAHPS Individual and Composite data sets with adjusted
*              scores, and benchmark data for DoD HCS.
*              - LOADMPR.SD2  - MPR Scores Databases
*              - LOADCAHP.SD2 - CAHPS Scores Databases
*              - BENCHA04.SD2 - CAHPS Benchmark Databases
*              - FAKE.SD2     - WEB Layout in Column order
*
* OUTPUT:   1) MERGFINL.SD2 - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) The following steps need to be run prior to this
*    program (2005,2006,2007):
*  - STEP1.SAS        - Recode questions and generate CAHPS group files
*  - STEP2.SAS        - Calculate CAHPS individual adjusted scores for groups 1-8
*  - COMPOSIT.SAS     - Calculate composite adjusted scores for group 1-8
*  - PRVCOMP.SAS      - Calculate MPR individual and composite scores
*  - SMOKING_BMI.SAS  - Calculate MPR smoking and BMI scores
*  - BENCHA01-04.SAS  - Convert Benchmark Scores into WEB layout
*  - LOADCAHP.SAS     - Convert CAHPS Scores Database into WEB layout
*
* 2) The output file (MERGFINL.SD2) will be run through the
*    MAKEHTML.SAS program to generate the WEB pages.
*
****************************************************************************
* Assign data libraries and options
****************************************************************************;
LIBNAME IN01  ".";
LIBNAME IN02  ".";
LIBNAME IN03  "..\2007\LOADWEB";
LIBNAME IN04  "..\2008\LOADWEB";
LIBNAME IN05  "..\REPORTCARDSV4\MPR_ADULT2009";
LIBNAME IN06  "..\2007\REPORTCARDS\MPR_ADULT2007";
LIBNAME IN07  "..\2008\REPORTCARDS\MPR_ADULT2008";
LIBNAME IN08  "..\BENCHMARKV4\DATA";
LIBNAME IN09  "..\2007\BENCHMARK\DATA";
LIBNAME IN10  "..\2008\BENCHMARK\DATA";
LIBNAME OUT   ".";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

%LET PERIOD7 = 2007;
%LET PERIOD8 = 2008;
%LET PERIOD9 = 2009;


****************************************************************************
* Construct ORDERing variable from WEB layout
****************************************************************************;
```

```
DATA ORDER;
   SET IN01.FAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

*****************************************************************************
* Merge the Scores Databases
*****************************************************************************;
DATA MERGFINL;
   SET IN02.LOADCAHPc (IN=INCAHP09)
       IN03.LOADCAHP (IN=INCAHP07)
       IN04.LOADCAHP (IN=INCAHP08)
       IN05.LOADMPR  (IN=INMPR09)
       IN06.LOADMPR  (IN=INMPR07)
       IN07.LOADMPR  (IN=INMPR08)
       IN08.BENCHA04c (IN=INBEN09)
       IN09.BENCHA04 (IN=INBEN07)
       IN10.BENCHA04 (IN=INBEN08);
   SVCAHP09 = INCAHP09;
   SVCAHP07 = INCAHP07;
   SVCAHP08 = INCAHP08;
   SVMPR09  = INMPR09 ;
   SVMPR07  = INMPR07 ;
   SVMPR08  = INMPR08 ;
   SVBEN09  = INBEN09 ;
   SVBEN07  = INBEN07 ;
   SVBEN08  = INBEN08 ;

   LENGTH KEY $200;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   IF SCORE = . THEN DELETE;
   IF TRIM(REGCAT) = "INV" THEN DELETE;
RUN;

PROC SORT DATA=MERGFINL; BY KEY; RUN;

*****************************************************************************
* Append ORDERing variable to the merged Scores database file
*****************************************************************************;
DATA MERGFINL2 out.MISSING;
   MERGE MERGFINL(IN=IN1) ORDER(IN=IN2);
   BY KEY;

   LENGTH FLAG $30;
   IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
   ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
   ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

   LENGTH SOURCE $30;
   IF SVCAHP09 = 1 THEN SOURCE = "CAHPS &PERIOD9.";
   IF SVCAHP08 = 1 THEN SOURCE = "CAHPS &PERIOD8.";
   IF SVCAHP07 = 1 THEN SOURCE = "CAHPS &PERIOD7.";
   IF SVMPR09  = 1 THEN SOURCE = "MPR &PERIOD9.  ";
   IF SVMPR08  = 1 THEN SOURCE = "MPR &PERIOD8.  ";
   IF SVMPR07  = 1 THEN SOURCE = "MPR &PERIOD7.  ";
   IF SVBEN09  = 1 THEN SOURCE = "BENCHMARK &PERIOD9.";
   IF SVBEN08  = 1 THEN SOURCE = "BENCHMARK &PERIOD8.";
   IF SVBEN07  = 1 THEN SOURCE = "BENCHMARK &PERIOD7.";

   IF IN1 AND NOT IN2 THEN OUTPUT out.MISSING; *Missing from layout;
   IF IN1 AND ORDER NE . THEN OUTPUT MERGFINL2;
RUN;

*****************************************************************************
```

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```
* Reorder file according to WEB layout
***************************************************************************;
PROC SORT DATA=MERGFINL2 OUT=OUT.MERGFINL; BY ORDER; RUN;

DATA FAKE;
SET IN01.FAKE;
   ORDER = _N_;
RUN;

DATA LAYONLY;
   MERGE FAKE(IN=IN1) OUT.MERGFINL(IN=IN2 KEEP=ORDER);
   BY ORDER;
   IF IN1 AND NOT IN2;
RUN;

TITLE1 "2009 DOD Health Survey Scores/Report Cards (6244-410)";
TITLE2 "Program Name: MERGFINL.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
TITLE4 "Program Outputs: MERGFINL.sas7bdat - Merged Final Scores Database for input to
MAKEHTML.SAS";

TITLE5 "MERGFINL.sas7bdat Data source counts";
PROC FREQ DATA=OUT.MERGFINL;
  TABLES SOURCE FLAG

  SVCAHP09 SVCAHP08 SVCAHP07
  SVMPR09  SVMPR08  SVMPR07
  SVBEN09  SVBEN08  SVBEN07

  SVCAHP09 * SVCAHP08 * SVCAHP07 *
  SVMPR09  * SVMPR08  * SVMPR07  *
  SVBEN09  * SVBEN08  * SVBEN07

 /MISSING LIST;
RUN;

TITLE5 "MERGFINL.sas7bdat Data attribute counts";
PROC FREQ DATA=OUT.MERGFINL;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "LAYONLY.sas7bdat Data attribute counts";
PROC FREQ DATA=LAYONLY;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;

TITLE5 "No matching record found in LAYOUT file (FAKE.sas7bdat)";
PROC PRINT DATA=OUT.MISSING;
VAR MAJGRP REGION REGCAT BENTYPE BENEFIT;
RUN;
```

```
********************************************************************************
*
*  PROGRAM:  CONUS_Q.SAS
*  TASK:     ANNUAL DOD HEALTH CARE SURVEY ANALYSIS (8860-410)
*  PURPOSE:  Generate CAHPS CONUS scores and perform significance tests.
*
*  WRITTEN:  11/13/2000 BY KEITH RATHBUN, Adapted from CONUS_A.SAS.
*            Merged SIGNIF_A.SAS funtionality.
*
*  MODIFIED: 1) 01/07/2002 BY KEITH RATHBUN, Updated for 2000 annual consumer
*               reports.
*            2) 01/27/2003 BY KEITH RATHBUN, Updated for 2002 annual consumer
*               reports.
*            3) 02/08/2004 BY CHRIS RANKIN, Updated for 2003 annual consumer
*               reports.
*            4) 11/14/2007 BY KEITH RATHBUN, Updated for 2007 annual consumer
*               reports.
*
*    INPUTS:  1) MERGFINL.SD2 - Scores Database in WEB Layout
*             2) FAKE.SD2 - Scores Database WEB Layout
*             3) CONUS_A.SD2 - Previous years Combined CAHPS/MPR Scores Database in WEB
layout
*
*    OUTPUT:  1) CONUS_Q.SD2 - Combined CAHPS/MPR Scores Database in WEB layout
*             2) LT30Q.SD2 - Records with <= 30 observations
*
*     NOTES:
*
* 1) The following steps need to be run prior to this program:
*     - STEP1Q.SAS   - Recode questions and generate group files
*     - STEP2.SAS    - Calculate individual adjusted scores for group 1-8
*     - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*     - MERGFINL.SAS - Merge the final CAHPS and MPR Scores Databases
*
********************************************************************************
* Assign data libraries and options
********************************************************************************;
LIBNAME IN1 ".";
LIBNAME OUT ".";

*LIBNAME IN1 V612 "l:\2005\programs\loadweb";
*LIBNAME OUT V612 "l:\2005\programs\loadweb";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

********************************************************************************
********************************************************************************
*
* Process Macro Input Parameters:
*
* 1) BENTYPE = Benefit Type
* 2) MAJGRP = Major Group
* 3) TYPE = INDIVIDUAL or COMPOSITE
* 4) BENEFIT = COMPOSITE Benefit Type
*
********************************************************************************
********************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
********************************************************************************;
%LET DSN = MERGFINL;

DATA INIT;
   SET IN1.&DSN;
   DELETE;
RUN;
%LET FLAG = 0;

%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
   SET PRETEMP END=FINISHED;
```

```
     %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
         WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
               REGION NOT IN("Benchmark","USA MHS") AND
               REGCAT NOT IN("Benchmark","USA MHS") AND
               REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
     %END;
     %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
         WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
               BENEFIT = "&BENEFIT" AND
               REGION NOT IN("Benchmark","USA MHS") AND
               REGCAT NOT IN("Benchmark","USA MHS") AND
               REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
     %END;
     %ELSE %DO;
          PUT "ERROR: Invalid Type = &TYPE";
     %END;

     IF SUBSTR(REGION,1,5) IN ('North','South') THEN DO;
        IF SUBSTR(REGION,1,5)='North' THEN REGCON=1;
       ELSE IF SUBSTR(REGION,1,5)='South' THEN REGCON=2;
        TOTCON=1;
        IF SUBSTR(REGION,7,4)='Army' THEN SERVICE=1;
       ELSE IF SUBSTR(REGION,7,9)='Air Force' THEN SERVICE=2;
       ELSE IF SUBSTR(REGION,7,4)='Navy' THEN SERVICE=3;
       ELSE SERVICE=4;
      END;
      ELSE IF SUBSTR(REGION,1,4)='West' THEN DO;
         REGCON=3;
        TOTCON=1;
        IF SUBSTR(REGION,6,4)='Army' THEN SERVICE=1;
       ELSE IF SUBSTR(REGION,6,9)='Air Force' THEN SERVICE=2;
       ELSE IF SUBSTR(REGION,6,4)='Navy' THEN SERVICE=3;
       ELSE SERVICE=4;
      END;
     ELSE IF SUBSTR(REGION,1,6)='Europe' THEN DO;
         REGCON=4;
         TOTCON=2;
         IF      SUBSTR(REGION,8,4)='Army'      THEN SERVICE=1;
         ELSE IF SUBSTR(REGION,8,9)='Air Force'  THEN SERVICE=2;
         ELSE IF SUBSTR(REGION,8,4)='Navy'       THEN SERVICE=3;
         ELSE                                        SERVICE=4;
      END;
         ELSE IF SUBSTR(REGION,1,7)='Pacific' THEN DO;
         REGCON=5;
         TOTCON=2;
         IF      SUBSTR(REGION,9,4)='Army'      THEN SERVICE=1;
         ELSE IF SUBSTR(REGION,9,9)='Air Force'  THEN SERVICE=2;
         ELSE IF SUBSTR(REGION,9,4)='Navy'       THEN SERVICE=3;
         ELSE                                        SERVICE=4;
      END;
      ELSE IF SUBSTR(REGION,1,13)='Latin America' THEN DO;
         REGCON=6;
         TOTCON=2;
         IF      SUBSTR(REGION,15,4)='Army'      THEN SERVICE=1;
         ELSE IF SUBSTR(REGION,15,9)='Air Force' THEN SERVICE=2;
         ELSE IF SUBSTR(REGION,15,4)='Navy'      THEN SERVICE=3;
         ELSE                                        SERVICE=4;
      END;

 RUN;

 *************************************************************************;
 * RSG 01/2005 Calc. total Service Affiliation Scores      *;
 *************************************************************************;
 PROC SORT DATA=TEMP;
 BY SERVICE;

 DATA TEMP2;
    SET TEMP;
    BY SERVICE;
       length key $200;
    IF FIRST.SERVICE THEN DO;
       SUMSCOR1 = 0;    RETAIN SUMSCOR1;
       SUMWGT1 = 0;     RETAIN SUMWGT1;
```

```
         SUMSE2 = 0;        RETAIN SUMSE2;
         SUMWGT2 = 0;       RETAIN SUMWGT2;
         N_OBS1 = 0;        RETAIN N_OBS1;
      END;

      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;


   KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
      FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

      IF LAST.SERVICE THEN DO;

         IF SUMWGT1 NOTIN (.,0) THEN DO;
           SCORE  = SUMSCOR1/SUMWGT1;
           SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
         END;
         ELSE DO;
           SCORE  = .;
           SEMEAN  = .;
         END;

          N_OBS  = N_OBS1;
          N_WGT  = SUMWGT1;
          SOURCE  = "USA";
          FLAG    = "USA";
          IF SERVICE=1 THEN REGION = "ARMY";
          IF SERVICE=2 THEN REGION = "AIR FORCE";
          IF SERVICE=3 THEN REGION = "NAVY";
          IF SERVICE=4 THEN REGION = "OTHER";

          REGCAT  = REGION;
          KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
         OUTPUT;
      END;
   RUN;
   ************************************************************************;
   * RSG 01/2005 Calc. Total Region scores                              *;
   ************************************************************************;
   PROC SORT DATA=TEMP;
   BY REGCON;
   DATA TEMP3;
      SET TEMP;
      BY REGCON;
         length key $200;
      IF FIRST.REGCON THEN DO;
         SUMSCOR1 = 0;    RETAIN SUMSCOR1;
         SUMWGT1 = 0;     RETAIN SUMWGT1;
         SUMSE2 = 0;      RETAIN SUMSE2;
         SUMWGT2 = 0;     RETAIN SUMWGT2;
         N_OBS1 = 0;      RETAIN N_OBS1;
      END;

      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;

   KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
      FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

      IF LAST.REGCON THEN DO;

         IF SUMWGT1 NOTIN (.,0) THEN DO;
           SCORE  = SUMSCOR1/SUMWGT1;
           SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
         END;
         ELSE DO;
           SCORE  = .;
```

```
              SEMEAN  = .;
           END;
            N_OBS   = N_OBS1;
            N_WGT   = SUMWGT1;
            SOURCE  = "REGION";
            FLAG    = "REGION";
            IF REGCON=1 THEN REGION = "NORTH";
            IF REGCON=2 THEN REGION = "SOUTH";
            IF REGCON=3 THEN REGION = "WEST";
            IF REGCON=4 THEN REGION = "Overseas Europe";
            IF REGCON=5 THEN REGION = "Overseas Pacific";
            IF REGCON=6 THEN REGION = "Overseas Latin America";
            REGCAT  = REGION;
            KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                  UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                  UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
          OUTPUT;
       END;
   RUN;


   ***********************************************************************;
   * RSG 01/2005 Calc. Total CONUS Scores                              *;
   ***********************************************************************;
   PROC SORT DATA=TEMP;
   BY TOTCON;
   DATA TEMP4;
       SET TEMP END=FINISHED;BY TOTCON;
          length key $200;
       IF FIRsT.Totcon THEN DO;
          SUMSCOR1 = 0;    RETAIN SUMSCOR1;
          SUMWGT1 = 0;     RETAIN SUMWGT1;
          SUMSE2 = 0;      RETAIN SUMSE2;
          SUMWGT2 = 0;     RETAIN SUMWGT2;
          N_OBS1 = 0;      RETAIN N_OBS1;
       END;
       ************************************************************************
       * Calculate for CONUS and OCONUS
       ***********************************************************************;

          IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
          IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
          IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
          IF N_OBS  NE . THEN N_OBS1 + N_OBS;

       IF LAST.TOTCON THEN GOTO FINISHED;
       RETURN;

   KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
        FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

       FINISHED:
          IF SUMWGT1 NOTIN (.,0) THEN DO;
            SCORE   = SUMSCOR1/SUMWGT1;
            SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
          END;
          ELSE DO;
            SCORE   = .;
            SEMEAN  = .;
          END;
           N_OBS   = N_OBS1;
           N_WGT   = SUMWGT1;
           IF TOTCON=1 THEN DO;
           SOURCE  = "USA";
           FLAG    = "USA";
           REGION = "USA MHS";
           END;
           IF TOTCON=2 THEN Do;
           SOURCE="OVERSEAS";
           FLAG="OVERSEAS";
           REGION="OVERSEAS";
           END;
           REGCAT  = REGION;
           KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                 UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
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                UPCASE(TRIM(REGION)) || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
   RUN;

   %IF &FLAG = 0 %THEN %DO;
      DATA FINAL;
         SET INIT TEMP2 TEMP3 TEMP4;
      RUN;
   %END;
   %ELSE %DO;
      DATA FINAL;
         SET FINAL TEMP2 TEMP3 TEMP4;
      RUN;
   %END;
   %LET FLAG = 1;

   %MEND;

   %MACRO CALLIT(TIMEPD=);

   DATA PRETEMP;
   SET IN1.&DSN.;
   IF TIMEPD="&TIMEPD";
   RUN;

   *****************************************************************************
   * Create CONUS for Active Duty - Individual
   ****************************************************************************;
   %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Getting Information                ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Wait for Routine Visit             ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Wait for Urgent Care               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);

   *****************************************************************************
   * Create CONUS for Active Duty Dependents - Individual
   ****************************************************************************;
   %PROCESS(BENTYPE=Claims Handled Correctly                 ,MAJGRP=Active Duty Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Courteous  Customer  Service             ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Explains  so  You  Can  Understand       ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Getting  Information                     ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Getting  to  See  a  Specialist          ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Getting  Treatment                       ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Listens  Carefully                       ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Shows  Respect                           ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Spends  Time  with  You                  ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Wait  for  Routine  Visit                ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);
   %PROCESS(BENTYPE=Wait  for  Urgent  Care                  ,MAJGRP=Active  Duty  Dependents,
   TYPE=INDIVIDUAL);

   *****************************************************************************
   * Create CONUS for Enrollees with Civilian PCM - Individual
   ****************************************************************************;
   %PROCESS(BENTYPE=Claims Handled Correctly             ,MAJGRP=Enrollees with Civilian PCM,
   TYPE=INDIVIDUAL);
```

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```
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);

    *****************************************************************************
    * Create CONUS for Enrollees with Military PCM - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);

    *****************************************************************************
    * Create CONUS for Non-enrolled Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly           ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service         ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand      ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information                ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist        ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                      ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You               ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
```

```
    %PROCESS(BENTYPE=Wait for Routine Visit                ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                  ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Prime Enrollees - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims  Handled  Correctly                 ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=Prime   Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service               ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand         ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                       ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist           ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                         ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                         ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows  Respect                             ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                    ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit                  ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                    ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Retirees and Dependents - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly              ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service            ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information                   ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist           ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                    ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                    ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                        ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You                 ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit               ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care                 ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for All Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly                  ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=All   Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous  Customer  Service              ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains  so  You  Can  Understand        ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Information                      ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
```

```
    %PROCESS(BENTYPE=Getting  to  See  a  Specialist                    ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting  Treatment                                 ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens  Carefully                                 ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows  Respect                                     ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                            ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit                          ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                            ,MAJGRP=All Beneficiaries,
TYPE=INDIVIDUAL);

    *****************************************************************************
    * Process Quarterly CONUS Composites
    *****************************************************************************
    *****************************************************************************
    * Create CONUS for Claims Processing - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                          ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents           ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with     Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with     Military     PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled      Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                            ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents             ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                          ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);

    *****************************************************************************
    * Create CONUS for Customer Service - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                          ,
TYPE=COMPOSITE,BENEFIT=Customer  Service);    ***MJS 07/08/03 Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents            ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with     Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with     Military     PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled      Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                            ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents             ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                          ,
TYPE=COMPOSITE,BENEFIT=Customer Service);

    *****************************************************************************
    * Create CONUS for Getting Care Quickly - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                          ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents            ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with     Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with     Military     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled      Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
```

```
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                    ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                     ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                 ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);

    ***************************************************************************
    * Create CONUS for Getting Needed Care - Quarterly
    ***************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty                                         ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents                          ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled        Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                     ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                      ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                 ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);

    ***************************************************************************
    * Create CONUS for Health Care - Quarterly
    ***************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty                                         ,
TYPE=COMPOSITE,BENEFIT=Health   Care);         ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents                          ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled        Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                     ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                      ,
TYPE=COMPOSITE,BENEFIT=Health Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                 ,
TYPE=COMPOSITE,BENEFIT=Health Care);

    ***************************************************************************
    * Create CONUS for Health Plan - Quarterly
    ***************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty                                         ,
TYPE=COMPOSITE,BENEFIT=Health   Plan);         ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents                          ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled        Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                     ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees     and     Dependents                      ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                 ,
TYPE=COMPOSITE,BENEFIT=Health Plan);

    ***************************************************************************
    * Create CONUS for How Well Doctors Communicate - Quarterly
    ***************************************************************************;
```

```
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                              ,
TYPE=COMPOSITE,BENEFIT=How  Well  Doctors  Communicate);        ***MJS  07/08/03  Changed
BENTYPE="&PERIOD4" to BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees      with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",  MAJGRP=Prime  Enrollees                           ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Retirees    and   Dependents              ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",  MAJGRP=All  Beneficiaries                         ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);


     ****************************************************************************
     * Create CONUS for Primary Care Manager - Quarterly
     ****************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                              ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);   ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees      with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",  MAJGRP=Prime  Enrollees                           ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Retirees    and   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
     %PROCESS(BENTYPE="Composite",  MAJGRP=All  Beneficiaries                         ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);


     ****************************************************************************
     * Create CONUS for Specialty Care - Quarterly
     ****************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                              ,
TYPE=COMPOSITE,BENEFIT=Specialty  Care);        ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents                ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",       MAJGRP=Enrollees      with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",      MAJGRP=Non-enrolled      Beneficiaries        ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",  MAJGRP=Prime  Enrollees                           ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Retirees    and   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
     %PROCESS(BENTYPE="Composite",  MAJGRP=All  Beneficiaries                         ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);


     %MEND;
     %CALLIT(TIMEPD=2009); /*KRR 11/14/2007*/
     %CALLIT(TIMEPD=2008); /*KRR 11/14/2007*/
     %CALLIT(TIMEPD=2007); /*KRR 11/14/2007*/


     ****************************************************************************
     * Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
     * as place holders for missing records. FAKE will be used for adding
     * new records.
     ****************************************************************************;
     DATA FAKE;
        SET IN1.FAKE;
        SIG = .;
```

```
      SCORE = .;
      ORDER = _N_;
      LENGTH KEY $200.;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
      IF BENEFIT='Total' THEN DELETE;

RUN;
PROC SORT DATA=FAKE OUT=TEMPQ;       BY KEY; RUN;
PROC SORT DATA=FAKE(KEEP=ORDER KEY); BY KEY; RUN;

*******************************************************************************
* Append BENCHMARK records to CAHPS records and perform significance tests
*******************************************************************************;
DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE timepd);
   SET IN1.&DSN;
   WHERE REGION = "Benchmark" AND SVMPR07=0 AND SVMPR08=0 AND SVMPR09=0; /*KRR 11/14/2007*/
RUN;
Data abnchmrk(keep=benefit bentype timepd ascore);
set benchmrk;
where majgrp='All Beneficiaries';
rename score=ascore;
run;
proc sort; by benefit bentype timepd;
proc sort data=benchmrk; by benefit bentype timepd;
data benchmrk;
merge benchmrk abnchmrk; by benefit bentype timepd;

PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE timepd; RUN;

PROC SORT DATA=FINAL; BY KEY; RUN;

DATA CONUS_Q;
   MERGE FINAL(IN=IN1 DROP=ORDER) FAKE(IN=IN2);
   BY KEY;
   IF IN1;
RUN;
PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE timepd; RUN;

*******************************************************************************
* Perform significance tests for CONUS scores
*******************************************************************************;
DATA SIGTEST1;
   MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE timepd;
   LENGTH KEY $200.;
*%include "offset.inc";
*%include "l:\2005\programs\loadweb\offset.inc";
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   ELSE TEST = .;
   SIG = 0;
   IF TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
   SOURCE = "USA_Q";
   FLAG   = "USA_Q";
   score=score+ascore-bscore;
   IF SIN;
RUN;
PROC SORT DATA=SIGTEST1; BY KEY; RUN;

*******************************************************************************
* Extract CAHPS scores to perform significance tests
*******************************************************************************;
DATA CAHPS MPR;
   SET IN1.&DSN;
   ****************************************************************
   * Significance tests have already been performed for MPR scores,
   * so remove from file.
```

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```
   **********************************************************************;
   IF SVMPR07 = 1|svmpr08=1|svmpr09=1 THEN OUTPUT MPR; /*KRR 11/14/2007*/
   IF SVMPR07 = 0 & svmpr08 = 0 & svmpr09 = 0 THEN OUTPUT CAHPS; /*KRR 11/14/2007*/
RUN;

PROC SORT DATA=CAHPS;
   BY MAJGRP BENEFIT BENTYPE timepd;
RUN;

***************************************************************************
* Perform significance tests for CAHPS scores
***************************************************************************;
DATA SIGTEST2;
   MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE timepd;
*%include "offset.inc";
*%include "l:\2005\programs\loadweb\offset.inc";
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   ELSE TEST = .;
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
   score=score+ascore-bscore;
RUN;
PROC SORT DATA=SIGTEST2; BY KEY; RUN;

PROC SORT DATA=MPR; BY KEY; RUN;

***************************************************************************
* Combine previously created records with the new file
***************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 MPR;
   BY KEY;
   ***************************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   ***************************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
      THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

***************************************************************************
* Create place holders for missing records
***************************************************************************;
DATA FAKEONLY;
   MERGE COMBINE(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

***************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
***************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE;
   BY KEY;

   IF BENEFIT NE "Preventive Care" THEN SCORE = SCORE*100;
RUN;

PROC SORT DATA=CONUS_Q OUT=OUT.CONUS_Q; BY ORDER; RUN;

TITLE1 "Annual 2008 DOD Health Survey Scores/Report Cards (6077-410)";
TITLE2 "Program Name: CONUS_Q.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MERGFINL.sas7bdat - Scores Database in WEB Layout";
TITLE4 "Program Outputs: CONUS_Q.sas7bdat - CONUS Scores Database in WEB layout";
```

```
PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  TREND_A.SAS
* TASK:     2007 DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Add TREND records to Scores database.
*
* WRITTEN:  07/28/2000 BY KEITH RATHBUN
*
* MODIFIED: 1) 02/21/2001 BY KEITH RATHBUN -- updated calculation for
*              trend score (DSCORE).
*           2) 01/07/2002 BY KEITH RATHBUN -- updated for 2000 survey.
*              Use 1998/2000 pairs to caclulate trends.
*           3) 01/27/2003 BY KEITH RATHBUN -- updated for 2002 survey.
*              Use 2000/2002 pairs to caclulate trends.
*           4) 02/08/2004 BY CHRIS RANKIN -- updated for 2003 survey.
*              Use 2001/2003 pairs to caclulate trends.
*           5) 02/2005 BY REGINA GRAMSS -- updated for 2004 survey,
*              include smoking cessation trend calculation,
*              put patch in for to order properly.
*           6) 02/2006 BY REGINA GRAMSS -- update for 2005.  Use
*              second set of scores using "old" weights to calculate
*              trend.
*           7) 11/14/2007 BY KEITH RATHBUN -- updated for 2007 survey.
*
* INPUTS:   1) CONUS_Q.SD2 - MPR and CAHPS Scores Database in WEB layout
*           2) FAKE.SD2 - Scores Database WEB Layout
*
* OUTPUT:   1) TREND_A.SD2 - Combined Scores Database in WEB layout
*
* NOTES:
*
* 1) All of the scores DB programs must be run and MERGFINL.SAS prior to
*    running this program.  All report card records must be merged prior
*    to the trend calculations (MERGFINL.SAS,CONUS_Q.SAS,TOTAL_A.SAS).
*
* 2) The output file (TREND_A.SD2) will be run through the
*    MAKEHTML.SAS program to generate the HTML consumer reports.
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;

LIBNAME IN   ".";
LIBNAME OUT  ".";

OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER ERRORS=10000;
/*RSG 02/2005 code copied from 2003 TOTAL_Ar.SAS - eliminate all records
  with semean>.05 or missing and delete all records for that region/regcat
  this will reduce the number of missing data*/

/* MER 11/17/08 semean threshold was changed to .07 */

data fakecut(keep=region regcat);
set in.conus_q;
where majgrp='Prime Enrollees' & region ne regcat
 & benefit='Health Plan' & timepd='2009'; *MER 11/5/2008 changed timepd to 2008;
if semean>.07|semean=.|regcat='31st Med Grp-Aviano'|regcat='374th Med Grp-Yokota AB';

proc sort; by region regcat;
data fake;
set in.fake;
oorder=_n_;
proc sort data=fake; by region regcat;
data newfake;
merge fakecut(in=fin) fake; by region regcat;
if fin then delete;
proc sort data=newfake out=out.newfake; by oorder;
run;

*****************************************************************************
* Extract records to calculate TRENDs.  Keep only 2001/2003 pairs for CAHPS
```

```
* records.  Trends have already been calculated for MPR scores.
****************************************************************************;

DATA TRENDS;
   SET IN.CONUS_Q (drop=key);      * MER 11/5/2008, changed 2005,2007 ;
   WHERE TIMEPD IN ('2007','2009'); * to 2007,2009;
   ****************************************************************************
   * Trends already calculated for MPR scores, so remove from file
   * (RSG 02/2005) EXCEPT Healthy Behavior scores whose trend need to be calculated
   ****************************************************************************;

   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));

   *MER 11/5/2008, changed svmpr05/07/07 to svmpr07/07/08;
   IF (SVMPR07 = 1 or SVMPR08 = 1 or SVMPR09 = 1)
      AND BENEFIT NE 'Healthy Behaviors' THEN DELETE;

RUN;

DATA TEMP07;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE ;
   IF TIMEPD = "2007";
RUN;
PROC SORT DATA=TEMP07; BY MAJGRP REGION REGCAT BENEFIT BENTYPE; RUN;

DATA TEMP09;
   SET TRENDS;
   KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF TIMEPD = "2009";
RUN;
PROC SORT DATA=TEMP09; BY MAJGRP REGION REGCAT BENEFIT BENTYPE; RUN;

DATA PAIR0709(keep=majgrp region regcat benefit bentype);
   MERGE TEMP07(IN=IN07) TEMP09(IN=IN09);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF IN07 AND IN09;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
RUN;

DATA TRENDS2;
   MERGE TRENDS(IN=INTREND) PAIR0709(IN=INPAIR);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE;
   IF INTREND AND INPAIR;
RUN;

PROC SORT DATA=TRENDS;
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD;
RUN;
  proc print data=trends(obs=100);
****************************************************************************
* Calculate TRENDs keeping only the TREND records
****************************************************************************;

DATA TRENDS bench;
   SET TRENDS(drop=bscore bsemean);
   BY MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD;
   IF TIMEPD = '2007' THEN DO;
      SCORE07 = SCORE/100;
      SE07    = SEMEAN;
      N07     = N_OBS;
      W07     = N_WGT;
   END;
   RETAIN SCORE07 SE07 N07 W07;
   IF TIMEPD = '2009' THEN DO;
      SCORE09 = SCORE/100;
      SE09    = SEMEAN;
      N09     = N_OBS;
      W09     = N_WGT;
```

```
   END;
   RETAIN SCORE09 SE09 N09 W09;
   LENGTH KEY $200.;
   IF TIMEPD = '2009' THEN DO;
      TIMEPD = "Trend";
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))   ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD)));
      SOURCE = "TREND";
      SEMEAN = SQRT(SE07**2+SE09**2);
      N_OBS  = MIN(N07,N09);
      N_WGT  = MIN(W07,W09);
      SCORE  = SCORE09-SCORE07;
      DSCORE = 100*(SCORE09-SCORE07);
      if region='Benchmark' then OUTPUT bench;
      else output trends;
   END;
   DROP ORDER SCORE07 SCORE09 SE07 SE09 N07 N09;
RUN;


PROC SORT DATA=trends;
   BY MAJGRP BENEFIT BENTYPE TIMEPD;
RUN;
proc sort data=bench out=benchs(keep=majgrp benefit bentype timepd score semean);
by majgrp benefit bentype timepd;
run;

*****************************************************************************
* Perform significance tests for CAHPS scores
*****************************************************************************;
DATA trends;
   MERGE trends(IN=SIN) BENCHs(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
   BY MAJGRP BENEFIT BENTYPE;
   if bsemean=. then bsemean=0;
   TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
   TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));
   SIG = 0;
   IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
   IF SCORE < BSCORE THEN SIG = -SIG;
   IF SIN;
RUN;

data trends;
set trends bench;
score=dscore;
PROC SORT DATA=TRENDS; BY KEY; RUN;

*****************************************************************************
* Construct ORDERing variable from WEB layout
* (RSG 02/2005 add fix to order it properly
*****************************************************************************;
DATA ORDER;
 SET IN.newFAKE;
   ORDER = _N_;
   LENGTH KEY $200;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))   ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD)));
   KEEP KEY ORDER;
RUN;

PROC SORT DATA=ORDER; BY KEY; RUN;

DATA MERGTRND;
   MERGE TRENDS(IN=IN1) ORDER(IN=IN2);
   BY KEY;
   IF IN1 and in2;
RUN;

PROC SORT DATA=IN.CONUS_Q OUT=CONUS_Q;
by key;run;
data conus_q;
    merge conus_q order(in=gin); by key;
```

```
      if gin;
   proc sort data=CONUS_Q; by order;
   PROC SORT DATA=MERGTRND; BY ORDER; RUN;

   DATA OUT.TREND_A;
      update MERGTRND CONUS_Q;
      BY ORDER;

      IF  BENEFIT  =  "Primary  Care  Manager"  THEN  BENEFIT  =  "Personal  Doctor";       /*MJS
02/13/2003*/

      IF REGCAT = "5th Med Grp-Minot" THEN REGION = "West Air Force";
      IF substr(region,1,5) in ('Latin','Europ','Pacif') then delete;

   RUN;

   TITLE1 "2008 DOD Health Survey Scores/Report Cards (6244-410)";
   TITLE2 "Program Name: TREND_A.SAS By Keith Rathbun";
   TITLE3 "Program Inputs: MPR and CAHPS data records in WEB Layout";
   TITLE4 "Program Outputs: TREND_A.sas7bdat - Merged Final Scores Database with TRENDs for
input to SIGNIF_A.SAS";

   TITLE5 "FREQs of TREND_A.sas7bdat";
   PROC FREQ;
     TABLES SOURCE FLAG MAJGRP REGION BENEFIT BENTYPE
     /MISSING LIST;
   RUN;

   TITLE5 "FREQs of newFAKE.sas7bdat";
   PROC FREQ DATA=IN.newFAKE;
     TABLES MAJGRP REGION BENEFIT BENTYPE
     /MISSING LIST;
   RUN;
```

```
*======================================================================;
*   Programmer:  Mark A. Brinkley                                      ;
*        Title:  MAKEHTMA.SAS                                          ;
*       Client:  6077-410                                             ;
*         Date:  02-28-2005                                           ;
*                                                                     ;
*      Purpose:  This program is designed to create                   ;
*                ANNUAL report cards                                   ;
*                                                                     ;
*                                                                     ;
*  Input files:  ?????.SD2                                            ;
* Output files:  HTML\                                                ;
*                3384*3 F*.HTM Files (Frame version)                  ;
*                3384   P*.HTM Files (Printer friendly - no frames)   ;
*                3384   P*.XLS Files (Excel files)                    ;
*                ------------------                                   ;
*                16920   TOTAL files                                  ;
*                                                                     ;
*                                                                     ;
*                                                                     ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!      ;
*                                                                     ;
*     IF YOU MODIFY THIS PROGRAM THEN PLEASE INITIAL AND DOCUMENT     ;
*     YOUR CHANGES.  THOSE FAILING TO DO THIS WILL BE SEVERELY        ;
*     BEATEN.                                                         ;
*                                                                     ;
*   ÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!ÛÛÛ!      ;
*                                                                     ;
*                                                                     ;
*                                                                     ;
* Modifications:                                                      ;
* 11-01-2000 - JSykes added pieces to create Excel Spreadsheets       ;
* 07-01-2001 - MAB modified for qtr 2                                 ;
* 10-25-2001 - C.Rankin moved link to printer friendly version        ;
*              from frame, created macro variable to include          ;
*              third row of subbenefit heading                        ;
* 11-01-2001 - D.Beahm changed splitpercent to splitpixel and adjusted;
*              the pixel size of the top frame to prevent scrolling   ;
*              she also added a <BR> before the printer icon to make  ;
*              sure it appears on it's own line                       ;
* 12-21-2001 - D.Beahm changed column widths for frame page a so that ;
*              the column headers would line up with the data in frame;
*              page b. Also revised Excel code so benchmarks for the  ;
*              majorgrp are shaded dark red instead of blue           ;
* 04-18-2002 - Quarterly report cards will now show a rolling 4       ;
*              quarters of data for the trend. DKB updated the period ;
*              BENTYPE references to account for this, this will need ;
*              to be done each quarter. Also revised footnote         ;
*              to indicate that this is the 2002 Survey of Health Care;
*              Beneficiaries. This reflects a change from previous    ;
*              years, the survey year now refers to the processing    ;
*              year instead of the year for which data was collected. ;
*              Also changed image reference from QTR to COL, these    ;
*              new names for the qtr images reflects the column they  ;
*              are in instead of the quarter they represent          ;
* 06-19-2002 - Mark Brinkley                                          ;
*                Updated for Q2_2002                                  ;
*                Changed macro var PERIOD to CURRENTPERIOD            ;
*                Added macro vars PERIOD1-PERIOD3                     ;
* 07-29-2002 - Daniele Beahm                                          ;
*                Added links to trend pages. Clicking on the fielding ;
*                Period now takes you to the component page for that  ;
*                period and clicking on the Trend column header now   ;
*                takes you to the Trend section of the help file      ;
* 02-04-2003 - Mike Scott                                             ;
*                Changed "Primary Care Manager" to "Personal Doctor"  ;
* 02-10-2003 - Mike Scott                                             ;
*                Inserted LENGTH HREF $ 250 statements before         ;
*                href = "string" statements so that href wouldn't be  ;
*                set by default                                       ;
```

```
* 02-14-2003 - Mike Scott                                             ;
*                Added code to avoid scores > 100                     ;
* 04-30-2003 - Mike Scott                                             ;
*                Changed Preventive Care columns from 5 to 6 to       ;
*                accommodate Cholesterol Testing.                     ;
* 05-01-2003 - Mike Scott                                             ;
*                Updated periods for Q1 2003, and changed "2001 and   ;
*                2002" to "2002 and 2003" and "2002 Health Care       ;
*                Survey" to "2003 Health Care Survey".                ;
* 05-04-2003 - Mike Scott                                             ;
*                Removed Civilian PCM (var1=3 or majgrp=3), and       ;
*                changed 4-8 references to 3-7.                        ;
* 05-06-2003 - Mike Scott                                             ;
*                Changed 7-0-0 to 8-0-0.                              ;
* 05-13-2003 - Mike Scott                                             ;
*                Changed two widths.                                  ;
* 05-14-2003 - Mike Scott                                             ;
*                Changed columns from 2-12 to 1-11 which is           ;
*                controlled by var3 - decreased var3's by 1 and       ;
*                decreased K loops by 1.                              ;
* 07-03-2003 - Mike Scott                                             ;
*                Incorporated TIMEPD variable into program to run     ;
*                with Q1 2003 TOTAL_Q rerun to include TIMEPD         ;
*                variable.                                            ;
* 07-30-2003 - Mike Scott                                             ;
*                Added else do section to correct header.             ;
* 07-31-2003 - Mike Scott                                             ;
*                Updated periods for Q2 2003.                         ;
* 08-01-2003 - Mike Scott                                             ;
*                Added code so periods would print on var3=7,8,9,10. ;
* 08-07-2003 - Regina Gramss                                          ;
*                Changed program to create additional trend pages     ;
*                for each sub-benefit: pages are now named with 4     ;
*                numbers (var4 has been added to all file name        ;
*                references) to compensate for additional layer       ;
*                of pages. All file references have been changed      ;
*                to include var4.                                     ;
* 01-28-2004 - Mike Scott                                             ;
*                Changed back to html being generated in HTML         ;
*                directory below directory where MAKEHTMQ is being    ;
*                run.                                                 ;
* 01-29-2004 - Mike Scott                                             ;
*                Commented out LENGTH HREF $ 250 statements, since    ;
*                HREF was already declared.                           ;
* 02-11-2004 - Mike Scott                                             ;
*                Changed all lengths to 100 that were less than 100. ;
* 03-24-2004 - Mike Scott                                             ;
*                Updated for Q1 2004.  Changed hard-coded years in    ;
*                footnotes stating source to macro variables.         ;
* 05-07-2004 - Mike Scott - Changed "Wait More than 15 Minutes Past   ;
*                Appointment" to "Wait in Doctor's Office" and        ;
*                "Problems Getting Referral to Specialist" to "Problems ;
*                Getting to See Specialist".  NAed out trends for the ;
*                composites Getting Needed Care, Getting Care Quickly, ;
*                and Customer Service and for the questions Problems   ;
*                Getting Personal Doctor/Nurse (GNC), Wait in Doctor's ;
*                Office (GCQ), and Problem with Paperwork (CS).       ;
* 02-16-2004 - Mike Scott - Moved initial data read-in outside macro  ;
*                loop to speed up program.                            ;
* 06-22-2004 - Regina Gramss - Updated for Q2 2004 run.               ;
* 08-02-2004 - Regina Gramss - removed lines that replaced trend      ;
*                with NA                                              ;
* 10-07-2004 - Regina Gramss - Adjusted for XTNEXREG                  ;
* 02-14-2005 - Mark Brinkley - added 12th benefit SMOKING             ;
* 03-28-2005 - Mark Brinkley - made changed to fix excel pages        ;
* 11-19-2007 - Keith Rathbun - Added 's' to Behavior. Updated         ;
*                parameters for 2007 survey.                          ;
* 11-05-2008 - Mike Rudacille - Updated parameters for 2008 survey.   ;
*                                                                     ;
* NOTE: Update only SRCYR1, SRCYR2, PERIOD1/2/3, and CURRENTPERIOD.   ;
*=====================================================================;


OPTIONS COMPRESS=YES;
```

```
    %LET SRCYR1 = 2007;   *** Previous year; /* MER - 11/21/08 Changed from previous year
                                                 to 2 years previous for accuracy of footnote*/
    %LET SRCYR2 = 2009;   *** Current year;

    %LET CURRENTPERIOD = 2009;
    %LET QTRS=3;                                        /** Qtr of these reports   **/


    OPTIONS NOXWAIT;


    %LET HTMLSP=%NRSTR( );
    %LET QUOTE=%STR("");
    %LET OUTDIR=HTML;                   /** Directory to put HTML files **/  /*MJS 01/28/04 Set
to HTML*/
    %LET IMGDIR=images;             /** Directory with images **/
    %LET TARGET=target='_parent';     /** HTML code for frames targeting **/
    %LET OUTXLS=1;                  /** 1=Make XLS file/0=Don't   Added 1-24 MAB **/
    %LET fontface=%STR(Arial,Helvetica,Swiss,Geneva);
    %LET hdcolr=%STR('white');
    %LET BLUE=%STR('#663300');        /** This is really dark red **/
    %LET GREEN=%STR('#009933');
    %LET RED=%STR('#cc0000');
    %LET GRAY=%STR('white');
    %LET LOGO=%STR('images\tricare_side_35_new.gif');
    %LET HELP_BUT=%STR('images\help75.gif');
    %LET HOME_BUT=%STR('images\home75.gif');
    %LET BACK_BUT=%STR('images\back75.gif');
    %LET NUMBER_HTML_FILES=0;         /** Keep count of HTML files created **/

    %LET SUB_HEAD=0;                  /** Macro variable for sub-benfit heading **/
                                      /** 1=headings, 0=no headings        **/


    /******************************************************/
    /***** Macro for putting notes at bottom of table   *****/
    /******************************************************/
    %MACRO BOTTOM_NOTES();
         PUT "<tr>";
       %if &var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2 %then %do;
         PUT "            <td  colspan='&columns.'><font  face='Arial,Helvetica,Swiss,Geneva'
size='2'>Source: Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1 through
&SRCYR2.</font>"; /* MER 11/21/08
       %end;
       %else %do;
         PUT "            <td  colspan='&columns.'><font  face='Arial,Helvetica,Swiss,Geneva'
size='2'>Source: &SRCYR2 Health Care Survey of DOD Beneficiaries</font>";
       %end;
         PUT "    <font face='Arial,Helvetica,Swiss,Geneva' size='2' color='#009933'><br>";
         PUT "                            <b>Indicates    score    significantly    exceeds
benchmark</b></font><b>&htmlsp.<br>";
         PUT "            </b><font    face='Arial,Helvetica,Swiss,Geneva'    size='2'
color='#cc0000'><i>Indicates score significantly falls short of benchmark</i></font><br>";
         PUT "        <font   face='Arial,Helvetica,Swiss,Geneva'   size='2'>NA   Indicates   not
applicable</font><br>";
       %if &var3. = 4 and &seppage. = 2 %then %do;
         PUT "        <font  face='Arial,Helvetica,Swiss,Geneva'  size='2'>* Indicates  scores  not
available for that year</font><br>";
       %end;
         PUT "        <font face='Arial,Helvetica,Swiss,Geneva' size='2'>*** Indicates suppressed
due to small sample size</font><br>";
       %if &var3. = 0 %then %do;
         PUT "            <font   face='Arial,Helvetica,Swiss,Geneva'   size='2'>#   Indicates   <a
href='..\html\help.htm#transition' &target.>change</a> to composite</font><br>";
       %end;
       %else %if &var3. = 1 or &var3. = 3 or (&var3. = 11 and &seppage. = 1) %then %do;
         PUT "            <font   face='Arial,Helvetica,Swiss,Geneva'   size='2'>#   Indicates   <a
href='..\html\help.htm#transition' &target.>change</a> to questions</font><br>";
       %end;
         PUT "      <center><a href='&hrefxls.'><img src='&imgdir.\excel.gif' border=0>Download
Page</a></center>";
         PUT "</td></tr>";
    %MEND BOTTOM_NOTES;
```

```
      /***********************************************************/
      /***** Macro for adding in link row to trends data  *****/
      /***********************************************************/

      /*** Macro variable with Javascript to go back ***/
      %LET    GOBACK=%STR(<script>document.write(&quote.<a      href='javascript:history.go(-1)'
target='_parent'>&quote.);
      document.write(&quote.<img   src='images\\back75.gif'  border='0'  alt='Go   to   previous
page'>&quote.);document.write(&quote.</a>&quote.);</script>);


      LIBNAME SRC1 '.'  ACCESS=READONLY;
      *LIBNAME SRC1 V612 'L:\2005\PROGRAMS\LOADWEB';

      OPTIONS LS=210;


      /**********************************************************************/
      /****    Macro to create html pages                          ****/
      /****          var1=major group                              ****/
      /****          var2=region                                   ****/
      /****          var3=benefit                                  ****/
      /****          var4=trend                                    ****/
      /****       seppage=0/no separate pages for qtrly trends     ****/
      /****              1/1st separate page with LINK to trends   ****/
      /****              2/2nd separate page with trends           ****/
      /**********************************************************************/
      /** RSG 08/07/03 - added var4 to add extra dimension of page numbers for
         sub benefit trend pages**/


      DATA PRE_SUBSET (RENAME=(TIME=TIMEPD));
        SET SRC1.TREND_Apc(DROP=FLAG SOURCE KEY);    /*** MAB testing 3/16/2005 ***/

        /* 02/2006 RSG - need to reset timepd to longer length to include
           values with asterix*/

        LENGTH TIME $6.;
        TIME=TIMEPD;
        IF BENEFIT="Total" THEN DELETE;  /*** MAB testing 2/11/2005 ***/

        /* MER 11/05/09 Temporary fix for 2009 and 2010 */
        IF (BENEFIT="Customer Service" AND TIMEPD="Trend") THEN SCORE=.;

        IF MAJGRP = "All Beneficiaries" THEN MAJGRP = "All Users";
        IF MAJGRP = "Non-enrolled Beneficiaries" THEN MAJGRP = "Standard/Extra Users";

        IF SCORE>100 then SCORE=100;
        IF (TIMEPD="Trend" and -.5<SCORE<0) THEN SCORE=ABS(SCORE);

      IF BENTYPE="Wait More than 15 Minutes Past Appointment" THEN     /*MJS 5/7/04 Changed
label*/
          BENTYPE="Wait in Doctor`s Office";
      IF BENTYPE="Problems Getting Referral to Specialist" THEN         /*MJS 5/7/04 Changed
label*/
          BENTYPE="Problems Getting to See Specialist";



       DROP TIMEPD;

          IF MAJGRP = "Benchmark" THEN LINEUP=1;
        ELSE IF MAJGRP = "Prime Enrollees" THEN LINEUP=2;
        ELSE IF MAJGRP = "Enrollees with Military PCM" THEN LINEUP=3;
             ELSE IF MAJGRP = "Enrollees with Civilian PCM" THEN LINEUP=4;
        ELSE IF MAJGRP = "Standard/Extra Users" THEN LINEUP=5;
             ELSE IF MAJGRP = "Purchased Care Users" THEN LINEUP=6;
        ELSE IF MAJGRP = "Active Duty" THEN LINEUP=7;
        ELSE IF MAJGRP = "Active Duty Dependents" THEN LINEUP=8;
        ELSE IF MAJGRP = "Retirees and Dependents" THEN LINEUP=9;
        ELSE IF MAJGRP = "All Users" THEN LINEUP=10;
```

```
     IF REGION = "Benchmark" THEN LINEUP2=1;
     ELSE IF UPCASE(REGION) = 'USA MHS' THEN DO;
        LINEUP2=2;
        REGION='US MHS';
        REGCAT='US MHS';
     END;
     ELSE IF UPCASE(REGION) = 'ARMY' THEN LINEUP2=3;
     ELSE IF UPCASE(REGION) = 'NAVY' THEN LINEUP2=4;
     ELSE IF UPCASE(REGION) = 'AIR FORCE' THEN LINEUP2=5;
     ELSE IF UPCASE(REGION) = 'OTHER' THEN LINEUP2=6;
     ELSE IF UPCASE(REGION) = 'NORTH' THEN LINEUP2=7;
     ELSE IF UPCASE(REGION) = 'NORTH ARMY' THEN LINEUP2=8;
     ELSE IF UPCASE(REGION) = 'NORTH NAVY' THEN LINEUP2=9;
     ELSE IF UPCASE(REGION) = 'NORTH AIR FORCE' THEN LINEUP2=10;
     ELSE IF UPCASE(REGION) = 'NORTH OTHER' THEN LINEUP2=11;
     ELSE IF UPCASE(REGION) = 'SOUTH' THEN LINEUP2=12;
     ELSE IF UPCASE(REGION) = 'SOUTH ARMY' THEN LINEUP2=13;
     ELSE IF UPCASE(REGION) = 'SOUTH NAVY' THEN LINEUP2=14;
     ELSE IF UPCASE(REGION) = 'SOUTH AIR FORCE' THEN LINEUP2=15;
     ELSE IF UPCASE(REGION) = 'SOUTH OTHER' THEN LINEUP2=16;
     ELSE IF UPCASE(REGION) = 'WEST' THEN LINEUP2=17;
     ELSE IF UPCASE(REGION) = 'WEST ARMY' THEN LINEUP2=18;
     ELSE IF UPCASE(REGION) = 'WEST NAVY' THEN LINEUP2=19;
     ELSE IF UPCASE(REGION) = 'WEST AIR FORCE' THEN LINEUP2=20;
     ELSE IF UPCASE(REGION) = 'WEST OTHER' THEN LINEUP2=21;
     ELSE IF UPCASE(REGION) = 'OVERSEAS' THEN LINEUP2=22;
     ELSE IF UPCASE(REGION) = 'OVERSEAS EUROPE' THEN LINEUP2=23;
     ELSE IF UPCASE(REGION) = 'OVERSEAS PACIFIC' THEN LINEUP2=24;
     ELSE IF UPCASE(REGION) = 'OVERSEAS LATIN AMERICA' THEN LINEUP2=25;


RUN;    ***MJS 07/03/03 Changed BENTYPE to TIMEPD;

PROC SORT;
BY LINEUP LINEUP2;
RUN;


%MACRO MKHTML(var1,var2,var3,seppage,var4);


/*** Determine some macro variables ***/
%if &prefix=f %then %do;
  %let width1=640;
  %let width2=640;
  %let border=0;
%end;
%else %do;
  %let width1=90%;
  %let width2=85%;
  %let border=1;
%end;

%let number_html_files=%EVAL(1+&number_html_files.);


/** Load in data **/
DATA SUBSET;
  SET PRE_SUBSET;
  LENGTH FILEOUT1 $ 100;    /*MJS 02/11/04*/
  LENGTH FILEOUT2 $ 100;
  LENGTH FILEOUT3 $ 100;


  /*** VAR1 indicated major group ***/
  %if &var1.=0 %then %let major=%STR();
  %if &var1.=1 %then %let major=%STR(Prime Enrollees);
  %if &var1.=2 %then %let major=%STR(Enrollees with Military PCM);
  %if &var1.=3 %then %let major=%STR(Enrollees with Civilian PCM);
  %if &var1.=4 %then %let major=%STR(Standard/Extra Users);
  %if &var1.=5 %then %let major=%STR(Purchased Care Users);
  %if &var1.=6 %then %let major=%STR(Active Duty);
  %if &var1.=7 %then %let major=%STR(Active Duty Dependents);
  %if &var1.=8 %then %let major=%STR(Retirees and Dependents);
```

```
%if &var1.=9 %then %let major=%STR(All Users);


%if &var4. = 0 %then %do;
    %LET BEN_TYPE=%STR('Composite');
%end;
%else %do;
    %if &var3. = 1 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Getting to See a Specialist');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Getting Treatment');
        %end;
    %end;
    %else %if &var3. = 2 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Wait for Routine Visit');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Wait for Urgent Care');
        %end;
    %end;
    %else %if &var3. = 3 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Listens Carefully');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Explains so You Can Understand');
        %end;
    %else %if &var4. = 3 %then %do;
            %LET BEN_TYPE = %STR('Shows Respect');
        %end;
        %else %if &var4. = 4 %then %do;
            %LET BEN_TYPE = %STR('Spends Time with You');
        %end;
    %end;
    %else %if &var3. = 4 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Getting Information');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Courteous Customer Service');
        %end;
    %end;
    %else %if &var3. = 5 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Claims Handled in a Reasonable Time');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Claims Handled Correctly');
        %end;
    %end;
    %else %if &var3. = 10 %then %do;
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Mammography');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Pap Smear');
        %end;
        %else %if &var4. = 3 %then %do;
            %LET BEN_TYPE = %STR('Hypertension');
        %end;
        %else %if &var4. = 4 %then %do;
            %LET BEN_TYPE = %STR('Prenatal Care');
        %end;
    %end;
    %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
        %if &var4. = 1 %then %do;
            %LET BEN_TYPE = %STR('Non-Smoking Rate');
        %end;
        %else %if &var4. = 2 %then %do;
            %LET BEN_TYPE = %STR('Counselled To Quit');
        %end;
```

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```
                      %else %if &var4. = 3 %then %do;
                           %LET BEN_TYPE = %STR('Percent Not Obese');
                      %end;
                  %end;
             %end;

                IF MAJGRP = "&major.";       /*** MAB MODIFIED 3/16/2005 ***/
                %let comma=%STR(,);
                %let grpmsg=%STR(Click below to view this table by other groups);


             /*** Create macro variables to refer to Component or Trend pages ***/
             %if &seppage.=2 %then %do;
                %let q=q;
                %let unq=;
                %let click_alt=Click for Component data;
                %let click_image=component.gif;
             %end;
             %else %do;
                %let q=;
                %let unq=q;
                %let click_alt=Click for Trend data;
                %let click_image=trend.gif;
             %end;


          FILEOUT1=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q..htm");      /** Main
html **/
          FILEOUT2=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.a.htm");     /** Header
html **/
          FILEOUT3=COMPRESS("&outdir.\&prefix.&var1.-&var2.-&var3.-&var4.&q.b.htm");     /** Data
html **/
          %if &outxls.=1 %then %do;
             %let fileout1= NUL;
             %let fileout2= NUL;
             %let fileout3= NUL;
           %end;
           %else %do;
             call symput('fileout1',FILEOUT1);
             call symput('fileout2',FILEOUT2);
             call symput('fileout3',FILEOUT3);
           %end;




          /*------------------------*/
          /* 2000/11: begin xls code */
          /*------------------------*/

          FILEOUTX=COMPRESS("&outdir.\p&var1.-&var2.-&var3.-&var4.&q..xls");             /* create
run-specific xls file */
          CALL SYMPUT('fileoutX',FILEOUTX);                                   /* via global macro
vars      */
          %if &seppage. ne 2 %then %do;
             %if &var3 = 0 or &var3 = 1 or &var3 = 3 or &var3 = 11 %then %do;
                TEMPLATE=COMPRESS("Templates\Template&var3._trans.xls");
             %end;
             %else %do;
                TEMPLATE=COMPRESS("Templates\Template&var3..xls");
             %end;
          %end;
          %else %if &var3 = 4 %then %do;
             TEMPLATE=COMPRESS("Templates\Template_trend2.xls");
          %end;
          %else %if &var3 = 1 or &var3 = 3 %then %do;
             TEMPLATE=COMPRESS("Templates\Template_trend_trans.xls");
          %end;
          %else %do;
             TEMPLATE=COMPRESS("Templates\Template_trend.xls");
          %end;
          CALL SYMPUT('template',TEMPLATE);                                   /* identify which
template xls file */
          /*------------------------*/
          /* 2000/11: end xls code   */
```

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```
      /*------------------------*/



   /*** VAR3 dictates type of benefit heading ***/
   %if &var3=0 %then %do;
     %let headvar=BENEFIT;
   %end;
   %else %do;
     %if &seppage.=2 or &var3=6 or &var3=7 or &var3=8 or &var3=9 %then %let headvar=TIMEPD;
     %else %let headvar=BENTYPE;
   %end;



   /*** Link to XLS file ***/
   HREFXLS=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..xls");
   call symput('hrefxls',HREFXLS);
RUN;


/*** Subset data by region ***/
DATA SUBSET2;
  SET SUBSET;

  %if &var2.=0 %then %do;     /** 0 = All regions **/
     IF REGION=REGCAT;        /** Just do All Region table **/
       %let sub_regs=%STR(All Regions);
   %end;

   %else %if &var2.=1 %then %do;
      IF UPCASE(REGION)="US MHS" ;
       %let sub_regs=%STR(US MHS);
   %end;
   %else %if &var2.=2 %then %do;
      IF UPCASE(REGION)="ARMY";
       %let sub_regs=%STR(ARMY);
   %end;
   %else %if &var2.=3 %then %do;
      IF UPCASE(REGION)="NAVY" ;
       %let sub_regs=%STR(NAVY);
   %end;
   %else %if &var2.=4 %then %do;
      IF UPCASE(REGION)="AIR FORCE";
       %let sub_regs=%STR(AIR FORCE);
   %end;

   %else %if &var2.=5 %then %do;
      IF UPCASE(REGION)="OTHER";
       %let sub_regs=%STR(OTHER);
   %end;
   %else %if &var2.=6 %then %do;
      IF UPCASE(REGION)="NORTH";
       %let sub_regs=%STR(NORTH);
   %end;
   %else %if &var2.=7 %then %do;
      IF UPCASE(REGION)="NORTH ARMY" or REGION="Benchmark" or REGION = "US MHS"
         OR REGION="NORTH" OR REGION="ARMY";
       %let sub_regs=%STR(North Army);
   %end;
   %else %if &var2.=8 %then %do;
      IF UPCASE(REGION)="NORTH NAVY" or REGION="Benchmark" or REGION = "US MHS"
         OR REGION="NORTH" OR REGION="NAVY";
       %let sub_regs=%STR(North Navy);
   %end;

   %else %if &var2.=9 %then %do;
      IF UPCASE(REGION)="NORTH AIR FORCE" or REGION="Benchmark" or REGION = "US MHS"
         OR REGION="NORTH" OR REGION="AIR FORCE";
       %let sub_regs=%STR(North Air Force);
   %end;
   %else %if &var2.=10 %then %do;
      IF UPCASE(REGION)="NORTH OTHER" or REGION="Benchmark" or REGION = "US MHS"
       OR REGION="NORTH" OR REGION="OTHER";
       %let sub_regs=%STR(North Other);
   %end;
```

```
    %else %if &var2.=11 %then %do;
       IF UPCASE(REGION)="SOUTH";
        %let sub_regs=%STR(SOUTH);
   %end;
    %else %if &var2.=12 %then %do;
       IF UPCASE(REGION)="SOUTH ARMY" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="SOUTH" OR REGION="ARMY";
        %let sub_regs=%STR(South Army);
    %end;

   %else %if &var2.=13 %then %do;
       IF UPCASE(REGION)="SOUTH NAVY" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="SOUTH" OR REGION="NAVY";
        %let sub_regs=%STR(South Navy);
   %end;
    %else %if &var2.=14 %then %do;
       IF UPCASE(REGION)="SOUTH AIR FORCE" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="SOUTH" OR REGION="AIR FORCE";
        %let sub_regs=%STR(South Air Force);
   %end;
    %else %if &var2.=15 %then %do;
       IF UPCASE(REGION)="SOUTH OTHER" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="SOUTH" OR REGION="OTHER";
        %let sub_regs=%STR(South Other);
   %end;
    %else %if &var2.=16 %then %do;
       IF UPCASE(REGION)="WEST";
        %let sub_regs=%STR(OVERSEAS);
   %end;

   %else %if &var2.=17 %then %do;
       IF UPCASE(REGION) = "WEST ARMY" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="WEST" OR REGION="ARMY";
        %let sub_regs=%STR(West Army);
   %end;
    %else %if &var2.=18 %then %do;
       IF UPCASE(REGION) = "WEST NAVY" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="WEST" OR REGION="NAVY";
        %let sub_regs=%STR(West Navy);
   %end;
    %else %if &var2.=19 %then %do;
       IF UPCASE(REGION) = "WEST AIR FORCE" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="WEST" OR REGION="AIR FORCE";
        %let sub_regs=%STR(West Air Force);
   %end;
    %else %if &var2.=20 %then %do;
       IF UPCASE(REGION) = "WEST OTHER" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="WEST" OR REGION="OTHER";
        %let sub_regs=%STR(West Other);
   %end;
    %else %if &var2.=21 %then %do;
       IF UPCASE(REGION) = "OVERSEAS" ;
        %let sub_regs=%STR(OVERSEAS);
   %end;
    %else %if &var2.=22 %then %do;
        IF UPCASE(REGION) = "OVERSEAS EUROPE" or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="OVERSEAS" OR REGION="EUROPE";
         %let sub_regs=%STR(Overseas Europe);
    %end;
    %else %if &var2.=23 %then %do;
       IF UPCASE(REGION) = "OVERSEAS PACIFIC"or REGION="Benchmark" or REGION = "US MHS"
          OR REGION="OVERSEAS" OR REGION="PACIFIC";
         %let sub_regs=%STR(Overseas Pacific);
    %end;
    %else %if &var2.=24 %then %do;
        IF UPCASE(REGION) = "OVERSEAS LATIN AMERICA"or REGION="Benchmark"  or  REGION  =  "US
MHS"
          OR REGION="OVERSEAS" OR REGION="LATIN AMERICA";
         %let sub_regs=%STR(Overseas Latin America);
    %end;
  RUN;


  /*** Subset data by Benefit ***/
```

```
DATA SUBSET3;
  SET SUBSET2;

  %if &var3.=0 %then %do;    /** 0=All Benefits **/
     IF BENTYPE="Composite" and TIMEPD="&currentperiod.";
  %end;
  %else %if &var3.=1 %then %do;
     IF BENEFIT="Getting Needed Care";

     /*** # of columns for this benefit table ***/
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=2 %then %do;
     IF BENEFIT="Getting Care Quickly";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=3 %then %do;
     IF BENEFIT="How Well Doctors Communicate";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=4 %then %do;
     IF BENEFIT="Customer Service";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=5 %then %do;
     IF BENEFIT="Claims Processing";
     %let columns=%EVAL(3+&qtrs.);
  %end;
  %else %if &var3.=6 %then %do;
     IF BENEFIT="Health Plan";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=7 %then %do;
     IF BENEFIT="Health Care";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=8 %then %do;
     IF BENEFIT="Personal Doctor";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=9 %then %do;
     IF BENEFIT="Specialty Care";
     %let columns=%EVAL(2+&qtrs.);
  %end;
  %else %if &var3.=10 %then %do;
     IF BENEFIT="Preventive Care";
     %let columns=%EVAL(5+&qtrs.);
  %end;
  %else %if &var3.=11 %then %do;
     IF BENEFIT="Healthy Behaviors";
     %let columns=%EVAL(4+&qtrs.);
  %end;

  /*** Set macro variable ***/
  %if &var3.=0 %then %do;
      %let sub_ben=%STR(&currentperiod. Composite Scores);
      %let columns=12;
  %end;
  %else %do;
    call symput('sub_ben',BENEFIT);
  %end;


  /*** Determine number of columns for sub-benefits  ***/
  /*** Equals cols - (x for qtrs  - 1 for stub column) ***/
  %let subcols=%EVAL(&columns.-&qtrs.-2);

  /*** Determine number of columns less 1st (stub) column ***/
  %let columns_less1=%EVAL(&columns.-1);

RUN;


DATA SUBSET4;
```

```
   SET SUBSET3;

   WIDTH_COL1=120; /** Set width of column 1 **/

   IF BENTYPE="Composite" THEN WIDTH3=90;
   ELSE WIDTH3=90;

   /** Deal with some special cases **/
   IF BENEFIT="Preventive Care" THEN DO;
       IF BENTYPE="Composite" THEN WIDTH3=.;
       ELSE WIDTH3=80;
   END;

   %if &prefix.=p %then %do;
      WIDTH3=.;
   %end;
   %else %if &var3.=0 %then %do;
/*     WIDTH_COL1=.;
      WIDTH3=40;*/
/* MER 05/02/09 new values for V4 frames */
      WIDTH_COL1=80;
      /* MER 05/02/09 */
      %if &var2.=0 %then %do;
         WIDTH3=44;
      %end;
      %else %do;
         WIDTH3=43;
      %end;
   %end;

   RUN;




OPTIONS LS=152;
PROC PRINT;
 VAR BENEFIT BENTYPE TIMEPD REGION REGCAT MAJGRP;
RUN CANCEL;
PROC PRINT;
 VAR BENEFIT BENTYPE REGION REGCAT MAJGRP;
RUN CANCEL;


/****************************************************************/
/****   Put out Header rows of table                       ****/
/****************************************************************/
DATA HTML;
  SET SUBSET4;
  LENGTH HREFBACK $100;

  IF REGION IN("Benchmark");

  /** Determine where back button should link to **/
  %if &var1.=0 %then %do;
     HREFBACK=COMPRESS("&prefix.9-0-0-0.htm");
  %end;
  %else %do;
     HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
  %end;

  /*** Create macro variable date with today's date ***/
  DATETIME=DATETIME();
  CALL SYMPUT ('DATETIME',left(put(datetime,datetime20.)));
  DROP DATETIME;

RUN;



/*** ÛÛ FRAMES SECTION ÛÛ ***/
%if &prefix=f %then %do;

    /*** Make frameset page split frames smaller on all ratings pages ***/
```

```
          %if &var3.=0 %then %do;
                %let splitpixel=228;
          %end;
          %else %if &var3.=1 OR &var3.=2 %then %do;
                %let splitpixel=211;
          %end;
          %else %if &var3.=5 OR &var3.=11 %then %do;
                %let splitpixel=181;
          %end;
          %else %if &var3.=3 %then %do;
                %let splitpixel=196;
          %end;
          %else %if &var3.=4 %then %do;
                %let splitpixel=221;
          %end;
          %else %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                %let splitpixel=158;
          %end;
          %else %if &var3.=10 %then %do;
                %let splitpixel=192;
          %end;

          %if &SEPPAGE.=2 %then %do;
                %let splitpixel=157;
          %end;


       /*** Create frameset page HTML page ***/
       DATA _NULL_;
         FILE "&FILEOUT1.";
         PUT "<html>";
         PUT "<frameset rows='&splitpixel.,*'>";
          %if &seppage.=2 %then %do;
            PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.qa.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
            PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.qb.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
          %end;
          %else %do;
            PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.a.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
            PUT "        <frame  src='f&var1.-&var2.-&var3.-&var4.b.htm'    MARGINHEIGHT='0'
MARGINWIDTH='0'>";
          %end;


         PUT "</frameset></html>";
       RUN;


       /*** Since done making frameset page then assign fileout1 = frame 1 ***/
       %let fileout1=&fileout2.;
       %if &seppage.=1 %then %do;
           %let fileout1=&fileout2.;
       %end;
       %else %if &seppage.=2 %then %do;
           %let fileout1=&fileout2.;
       %end;

    %end;


    /*** Initialize HTML page ***/
    DATA _NULL_;
      FILE "&FILEOUT1.";

      PUT "<! Created &datetime.>";
      PUT "<html><head><title>";
      PUT "&major. &comma. &sub_ben., &sub_regs.";
      PUT "</title></head>";
      PUT    "<body    bgcolor='#999999'    text='#000099'    link='#660066'    alink='#660066'
vlink='#996699'>";

      /*** link to printer friendly version moved, 10/25/2001 C.Rankin ***/
```

```
        RUN;

      /*------------------------*/
      /* 2000/11: begin xls code */
      /*------------------------*/
      %if &outxls.=1 %then %do;
        X "COPY &template. &fileoutX.";                          /* copy template xls to
run-specific xls file */
        X "START &fileoutX.";                                    /* open run-specific xls
file              */
        FILENAME XLSTITLE DDE 'excel|Sheet1!R1C1:R2C20' NOTAB;        /* xls rows 1 & 2 (titles)
*/
        FILENAME XLSDATA DDE 'excel|Sheet1!R6C1:R100C20' NOTAB;       /* xls rows 6+ (body of
table)           */
      %end;
      /*------------------------*/
      /* 2000/11: end xls code   */
      /*------------------------*/




      /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
      /*** If ALL benefits (VAR3=0) then do special column headers ***/
      %if &var3.=0 %then %do;
      DATA _NULL_;
        SET HTML END=EOF;
        *LENGTH HREF $ 250;   /*MJS 01/29/04 Commented out statement*/

        IF _N_=1 THEN DO;

              FILE "&FILEOUT1." MOD;      /* 2000/11: moved file stmt inside if stmt */

              /*** put table title ***/
              /**PUT  "<h2><center><font  face='&fontface.'>&major., &sub_regs. <br> &sub_ben.
</font></center></h2>"**/

              /** MF Changes ROW 1 **/
              PUT    "<center><table    border='&border.'    cellpadding='2'    cellspacing='0'
bgcolor='#D8D8D8' colspan=12 width='&width1.'>";
              PUT "<tr bgcolor='white'>";
              PUT "          <td  colspan='6'  valign='top'  bgcolor='#999999'><img  border='0'
height='25' width='242' src=&logo.></td>";
              PUT "    <td colspan='6' align='right' valign='bottom' bgcolor='#999999'>";
              PUT "          <div align='right'>";
              PUT "            <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";
              PUT "&goback.";

              PUT "                   <noscript><a href=""" HREFBACK   +(-1)  """ &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
              PUT "          &htmlsp. &htmlsp.";
              PUT "            <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
              PUT "    </td>";
              PUT "</tr>";

              PUT "<tr>";
              PUT "        <td valign='center' align='center' colspan='12' bgcolor='#D8D8D8'>";
              PUT "              <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs.<br>";
              PUT "              &sub_ben.</b></font>";
              PUT "        </td>";
              PUT "</tr>";


              /*** Print out 3rd row ***/
              /*** ÛÛ FRAMES SECTION ÛÛ ***/


              /***here***/
```

```
                %if &prefix=f %then %do;
                    PUT "<tr bgcolor= &hdcolr.>";
                            /**RSG 02/2005 add in a dummy gif to align titles and comment out extra
cell**/
                    PUT   "<td   width=40   colspan=1><IMG   SRC='&imgdir.\dummy.gif'   ALT='   '
BORDER=0></td>";
                    PUT "<td width=80 colspan=2><IMG SRC='&imgdir.\eoa.gif'ALT='Ease of Access'
BORDER=0></td>";
                    PUT    "<td    width=185    colspan=3><IMG    SRC='&imgdir.\com_cus_ser.gif'
ALT='Communication and Customer Service' BORDER=0></td>";
                    PUT "<td width=160 colspan=4><IMG SRC='&imgdir.\ratings0.gif' ALT='Ratings'
BORDER=0></td>";
                    PUT    "<td    width=50    colspan=1><IMG    SRC='&imgdir.\prevention.gif'
ALT='Prevention' BORDER=0></td>";
                    PUT "<td width=80 colspan=1><IMG SRC='&imgdir.\healthy.gif' ALT='Healthy
Behaviors' BORDER=0></td>";
                    PUT "</tr>";
                    PUT "<tr bgcolor= &hdcolr.>";
                %end;
                %else %do;
                    PUT "<tr bgcolor= &hdcolr.>";
                    PUT "<td>&htmlsp.</td>";

                    PUT  "<td  align='center'  valign='bottom'  colspan=2><font  face='&fontface.'
size='2'><b>Ease of Access</b></font></td>";
                    PUT  "<td  align='center'  valign='bottom'  colspan=3><font  face='&fontface.'
size='2'><b>Communication and Customer Service</b></font></td>";
                    PUT  "<td  align='center'  valign='bottom'  colspan=4><font  face='&fontface.'
size='2'><b>Ratings</b></font></td>";
                    PUT  "<td  align='center'  valign='bottom'  colspan=1><font  face='&fontface.'
size='2'><b>Prevention</b></font></td>";
                    PUT  "<td  align='center'  valign='bottom'  colspan=1><font  face='&fontface.'
size='2'><b>Healthy Behaviors</b></font></td>";
                    PUT "</tr>";
                    PUT "<tr bgcolor= &hdcolr.>";
                %end;


            /*** Print out 1st column of 4th row ***/
            /*** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
                PUT "<td width=125>&htmlsp.</td>";
            %end;
            %else %do;
                PUT "<td width='8%'><font face='&fontface.'>&htmlsp.</font></td>";
            %end;

            bennum=1;  /** index to all 11 benefits **/


            /*------------------------*/
            /* 2000/11: begin xls code */
            /*------------------------*/
            %if &outxls.=1 %then %do;
              FILE XLSTITLE;
              PUT "&major. &comma. &sub_regs.";
              PUT "%cmpres('&sub_ben.')";
            %end;
            /*------------------------*/
            /* 2000/11: begin xls code */
            /*------------------------*/
        END;

     FILE "&FILEOUT1." MOD ;              /* 2000/11: refer back to htm file */

     /*** Put Benefits across columns (Continuation of 4th row) ***/
     HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-"||bennum||"-&var4..htm");


     /** If TOTAL benefit then don't have HREF **/
     /*** ÛÛ FRAMES SECTION ÛÛ ***/
     %if &prefix=f %then %do;
       IF BENNUM=1 OR BENNUM=2 OR BENNUM=3 OR BENNUM=4 OR BENNUM=11 THEN DO;
           IMAGE=COMPRESS("&imgdir.\image0_"||bennum||"_trans.gif");
```

```
          END;
          ELSE DO;
             IMAGE=COMPRESS("&imgdir.\image0_"||bennum||".gif");
          END;
          IF    BENNUM=0    THEN    PUT    "<td    align='center'    valign='bottom'><IMG
SRC='&imgdir.\image0_0.gif' alt='Total' BORDER=0></td>";
          ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" BENEFIT "' BORDER=0></a></td>";

       %end;
       %else %do;
          IF    BENNUM=0    THEN    PUT    "<td    width='8%'    align='center'    valign='bottom'><font
face='&fontface.'size='1'>" &HEADVAR. "</font></td>";
          ELSE    IF    BENNUM<5    OR    BENNUM=11    THEN    PUT    "<td    width='8%'    align='center'
valign='bottom'><font face='&fontface.'size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR.
+(-1) "<b>#</b></a></font></t
          ELSE        PUT        "<td        width='8%'        align='center'        valign='bottom'><font
face='&fontface.'size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
       %end;


       bennum+1;


       IF EOF THEN DO;
         PUT "</tr>";
       END;

    RUN;
    %end;




    /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
    /*** If Sub-benefit (VAR3^=0) then do differently ***/
    /*** If not separate page (SEPPAGE=0) for quarterly info then do as before ***/
    %else %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;



    DATA _NULL_;
      SET HTML END=EOF;
      *LENGTH HREF $ 250;

      COLUMNS=&columns.;
      SPAN2=ROUND(COLUMNS/2,1);
      SPAN1=COLUMNS-SPAN2;


      IF _N_=1 THEN DO;

            FILE "&FILEOUT1." MOD ;


            /** MF Changes ROW 1 **/
            PUT    "<center><table    border='&border.'    cellpadding='2'    cellspacing='0'
bgcolor='#D8D8D8' width='&width2.'>";
            PUT "<tr bgcolor='white'>";
            PUT "      <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img
border='0' height='25' width='242' src=&logo.></td>";
            PUT "      <td colspan=""" SPAN2 +(-1) """ align='right' valign='bottom'
bgcolor='#999999'>";
            PUT "         <div align='right'>";
            PUT "          <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";


            PUT "&goback.";

            PUT "                 <noscript><a href=""" HREFBACK   +(-1) """ &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
            PUT "          &htmlsp. &htmlsp.";
```

```
             PUT "                  <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
             PUT "    </td>";
             PUT "</tr>";

             /** MF Changes ROW 2 **/

             PUT "<tr>";
             PUT "                  <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
             PUT "                     <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";

             /*** If ratings then don't display reference period ***/
             %if &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
                          ***MJS 4/23/03 Changed 8/9/10/11 to 7/8/9/10;
                  PUT "                  &sub_ben.</b></font>";
             %end;
             %else %do;
                  PUT "                  &sub_ben.<BR>&currentperiod.</b></font>";
             %end;


             PUT "         </td>";
             PUT "</tr>";


             /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

             %if &sub_head.=1 %then %do;
                /** 3rd Row ***/
                /** ÛÛ FRAMES SECTION ÛÛ ***/
                %if &prefix=f %then %do;
                     PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                     /*** If sub-benefits then output sub-benefit columns ***/
                     %if &subcols.^=0 %then %do;
                       IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                       PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC="
IMAGE " alt='" BENEFIT "' BORDER=0></td>";
                       PUT   "<td   align='center'   valign='bottom'   colspan=&qtrs.><IMG
SRC='&imgdir.\composite.gif' ALT='Composite' BORDER=0></td></tr>";
                     %end;
                     %else %do;
                        PUT   "<td   align='center'   valign='bottom'   colspan=&qtrs.><IMG
SRC='&imgdir.\border_rating.gif' ALT='Ratings' BORDER=0></td></tr>";
                     %end;
                %end;
                %else %do;
                     PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                     /*** If sub-benefits then output sub-benefit columns ***/
                     %if &subcols.^=0 %then %do;
                        PUT   "<td   align='center'   valign='bottom'   colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                        PUT   "<td   align='center'   valign='bottom'   colspan=&qtrs.><font
face='&fontface.'><b>Composite</b></font></td></tr>";
                     %end;
                     %else %do;
                        PUT   "<td   align='center'   valign='bottom'   colspan=&qtrs.><font
face='&fontface.'><b>Ratings</b></font></td></tr>";
                     %end;
                %end;
             %end;


             /*** 4th Row start (column 1) ***/
             /*** ÛÛ FRAMES SECTION ÛÛ ***/
             %if &prefix=f %then %do;
                PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
                PUT   "<td   align='left'   valign='bottom'><img   src='&imgdir.\blank_35_50.gif'
border=0></td>";
             %end;
             %else %do;
                PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
                PUT "<td width='10%'>&htmlsp.</td>";
```

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```
           %end;



              /*------------------------*/
              /* 2000/11: begin xls code */
              /*------------------------*/
              %if &outxls.=1 %then %do;
                FILE XLSTITLE;
                PUT "&major. &comma. &sub_regs.";
                PUT "%cmpres('&sub_ben.')";
              %end;
              /*------------------------*/
              /* 2000/11: begin xls code */
              /*------------------------*/
       END;

    FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
    /*** Print out column headings ***/

        HREF=COMPRESS("..\html\help.htm#q&var3.");
        HREF1=COMPRESS("..\html\help.htm#trend");




    /*** 4th Row (columns 2+) ***/
    /*** If quarter column then HREF link is different ****/
    /*** ÛÛ FRAMES SECTION ÛÛ ***/

    %if &prefix=f %then %do;
        IF _N_>&subcols. THEN IMAGE=COMPRESS("&imgdir.\col"||_N_-&subcols.||".gif");
        ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");

        /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
        IF  TIMEPD  NE  "TREND"  AND  TIMEPD  NE  "TREND*"  THEN  PUT  "<td  align='center'
valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG SRC='" IMAGE "' alt='" TIMEPD "'
BORDER=0></a></td>";
        ELSE PUT "<td align='center' valign='bottom'><a href=""" HREF1 +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
      %end;
      %else %do;
        /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE */
        IF TIMEPD NE "TREND" AND TIMEPD NE "TREND*" THEN PUT "<td width='10%' align='center'
valign='bottom'><font face='&fontface.' size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR.
"</a></font><
        ELSE  PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF1 +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
      %end;


      IF EOF THEN DO;
        PUT "</font></tr>";
      END;

    RUN;
    %end;




    /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
    /*** Added MAB 11-20-2000 ***/
    /*** If Sub-benefit then do differently ***/
    /*** If separate page (SEPPAGE=1) then create 1st of 2 HTML files ***/
    /*** 1 for data without qtrly info and 1 for just qtrly info ***/
    %else %if &seppage.=1 %then %do;


    DATA HTML2;
      SET HTML;
      IF TIMEPD="&currentperiod.";
      IF BENTYPE="Composite" THEN DELETE;
```

```
      RUN;




      /*** Remove qtrs from column counts ***/
      %let columns=%EVAL(&columns.-&qtrs.);

      /*** Do sub-benefit page without any qtrly info ***/
      DATA _NULL_;
        SET HTML2 END=EOF;


        FILE "&FILEOUT1." MOD ;

        COLUMNS=&columns.;
        SPAN2=ROUND(COLUMNS/2,1);
        SPAN1=COLUMNS-SPAN2;


        IF _N_=1 THEN DO;


              FILE "&FILEOUT1." MOD ;


              /** MF Changes ROW 1 **/
              PUT    "<center><table    border='&border.'    cellpadding='2'    cellspacing='0'
bgcolor='#D8D8D8' width='&width2.'>";
              PUT "<tr bgcolor='white'>";
              PUT "       <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img
border='0' height='25' width='242' src=&logo.></td>";
              PUT "         <td  colspan=""" SPAN2 +(-1)  """  align='right'  valign='bottom'
bgcolor='#999999'>";
              PUT "            <div align='right'>";
                /** RSG - 09/02/03 Second set of trend pages need to refer to var4=0 pages **/
              PUT "                   <a  href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm'
&target.><img src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
              PUT "            <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. ";

              PUT "&goback.";
              PUT "                     <noscript><a href=""" HREFBACK    +(-1)  """ &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
              PUT "            &htmlsp. ";
              PUT "             <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
                PUT "     </td>";
              PUT "</tr>";

              /** MF Changes ROW 2 **/
              PUT "<tr>";
              PUT "           <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
              PUT "                  <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";


              PUT "                  &sub_ben.<BR>&currentperiod.</b></font>";



              PUT "           </td>";
              PUT "</tr>";

              /*** Sub_head macro variable added C.Rankin 10/25/2001  ***/

              %if &sub_head.=1 %then %do;
                 /*** 3rd Row ***/
                 /*** ÛÛ FRAMES SECTION ÛÛ ***/
                 %if &prefix=f %then %do;
```

```
                   PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                   IMAGE=COMPRESS("&imgdir.\span_image&var3..gif");
                   PUT "<td align='center' valign='bottom' colspan=&subcols.><IMG SRC=" IMAGE "
alt='" BENEFIT "' BORDER=0></td>";
                %end;
                %else %do;
                   PUT "<tr bgcolor= &hdcolr.><td>&htmlsp.</td>";   /** Column 1 **/
                   PUT    "<td    align='center'    valign='bottom'    colspan=&subcols.><font
face='&fontface.'><b>&sub_ben.<br>components</b></font></td>";
                %end;
            %end;

            /*** 4th Row start (column 1) ***/
            /*** ÛÛ FRAMES SECTION ÛÛ ***/
            %if &prefix=f %then %do;
              PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
          if columns ne 3 and columns ne 6 and columns ne 4 then do;
                  PUT  "<td  align='left'  valign='bottom'><img  src='&imgdir.\blank_50_50.gif'
border=0></td>";
                  end;
           else if columns = 3 or columns = 4 then do;
                  PUT  "<td  align='left'  valign='bottom'><img  src='&imgdir.\blank_120_50.gif'
border=0></td>";
              end;
           else if columns = 6 then do;
                  PUT  "<td  align='left'  valign='bottom'><img  src='&imgdir.\blank_145_50.gif'
border=0></td>";
              end;

            %end;
            %else %do;
              PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
              PUT "<td width='10%'>&htmlsp.</td>";
            %end;


     qnum=1; /**RSG 08/07/03 Added as counter to use to for link to the trend pages**/

            /*------------------------*/
            /* 2000/11: begin xls code */
            /*------------------------*/
            %if &outxls.=1 %then %do;
              FILE XLSTITLE;
              PUT "&major. &comma. &sub_regs.";
              PUT "%cmpres('&sub_ben.')";
            %end;
            /*------------------------*/
            /* 2000/11: begin xls code */
            /*------------------------*/
     END;

     FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
     /*** Print out column headings ***/

     /*HREF=COMPRESS("help.htm#q&var3.");   */

     HREF=COMPRESS("..\html\&prefix.&var1.-&var2.-&var3.-"||qnum||"&unq..htm");
      *** RSG 08/07/03 Use qnum counter to refer to subbenefit trend pages;

   *************************************;
     /*** 4th Row (columns 2+) ***/
     /*** If quarter column then HREF link is different ****/
     /*** ÛÛ FRAMES SECTION ÛÛ ***/
     %if &prefix=f %then %do;
       %if &var3 = 1 or &var3 = 3  %then %do;
      IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||"_trans.gif");
       %end;
       %else %if &var3 = 11 %then %do;
          IF _N_ < 3 THEN IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||"_trans.gif");
          ELSE IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
       %end;
       %else %do;
      IMAGE=COMPRESS("&imgdir.\image&var3._"||_N_||".gif");
       %end;
```

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```
        PUT  "<td align='center' valign='bottom'><a href=""" HREF +(-1) """ &target.><IMG
SRC='" IMAGE "' alt='" BENTYPE "' BORDER=0></a></td>";
      %end;
      %else %do;
        %if &var3 = 1 or &var3 = 3 %then %do;
           PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "<b>#</b></a></font></td>";
        %end;
        %else %if &var3 = 11 %then %do;
           IF  _N_  < 3  THEN  PUT "<td  width='10%'  align='center'  valign='bottom'><font
face='&fontface.'   size='1'><a   href="""   HREF   +(-1)   """   &target.>"   &HEADVAR.
"<b>#</b></a></font></td>";
           ELSE PUT "<td width='10%' align='center' valign='bottom'><font face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
        %end;
        %else %do;
           PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href=""" HREF +(-1) """ &target.>" &HEADVAR. "</a></font></td>";
        %end;
      %end;

    qnum+1; *** RSG 08/07/03 Added to increase the counter;

    IF EOF THEN DO;
      PUT "</font></tr>";
      /***  2-2 MAB removed scale row ***/
    END;


  RUN;
  %end;




  /*ÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛÛ*/
  /*** If separate page (SEPPAGE=2) then create 2nd of 2 HTML files ***/
  /*** 1 for data without qtrly info and 1 for just qtrly info ***/
  %else %if &seppage.=2 %then %do;


  /*** Keep only qtrs in column counts ***/

  %let columns=%EVAL(&qtrs.+2);


  /*** Then do sub-benefit page with just qtrly info ***/
  DATA JUSTQTR;
    SET HTML;
    /*** Since spliting up table need to delete some records ***/

    *  IF BENTYPE="Composite";   ***DKB ADDED TREND on 4/29/2002 to account for trend col;
    %if &var4. = 0 %then %do;  **RSG ADDED TREND FOR BENTYPES on 8/7/2003 - select
                                   records appropriate for bentype;
           IF BENTYPE="Composite";
    %end;
    %else %if &var4. ne 0 and BENTYPE ne "Composite" %then %do;

           %if &var3. = 1 %then %do;
                  %if &var4. = 1 %then %do;
                         IF BENTYPE = "Getting to See a Specialist";
                  %end;
                  %else %if &var4. = 2 %then %do;
                         IF BENTYPE = "Getting Treatment";
                  %end;
           %end;
           %else %if &var3. = 2 %then %do;
                  %if &var4. = 1 %then %do;
                         IF BENTYPE = "Wait for Routine Visit";
                  %end;
                  %else %if &var4. = 2 %then %do;
                         IF BENTYPE = "Wait for Urgent Care";
                  %end;
           %end;
```

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```
            %else %if &var3. = 3 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Listens Carefully";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Explains so You Can Understand";
                    %end;
                    %else %if &var4. = 3 %then %do;
                            IF BENTYPE = "Shows Respect";
                    %end;
                    %else %if &var4. = 4 %then %do;
                            IF BENTYPE = "Spends Time with You";
                    %end;
            %end;
            %else %if &var3. = 4 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Getting Information";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Courteous Customer Service";
                    %end;
            %end;
            %else %if &var3. = 5 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Claims Handled in a Reasonable Time";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Claims Handled Correctly";
                    %end;
            %end;
            %else %if &var3. = 10 %then %do;
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Mammography";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Pap Smear";
                    %end;
                    %else %if &var4. = 3 %then %do;
                            IF BENTYPE = "Hypertension";
                    %end;
                    %else %if &var4. = 4 %then %do;
                            IF BENTYPE = "Prenatal Care";
                    %end;
            %end;
            %else %if &var3. = 11 %then %do;    /*** MAB Added 2/11/2005 ***/
                    %if &var4. = 1 %then %do;
                            IF BENTYPE = "Non-Smoking Rate";
                    %end;
                    %else %if &var4. = 2 %then %do;
                            IF BENTYPE = "Counselled To Quit";
                    %end;
                        %else %if &var4. = 3 %then %do;
                                IF BENTYPE = "Percent Not Obese";
                        %end;
            %end;

            call symput('sub2_ben',BENTYPE); **create macro var to use in sub-benefit
                                              trend pages (below) - RSG 08/07/03;
    %end;


RUN;

DATA _NULL_;
  SET JUSTQTR END=EOF;


  FILE "&FILEOUT1." MOD ;

  COLUMNS=&columns.;
  SPAN2=ROUND(COLUMNS/2,1);
  SPAN1=COLUMNS-SPAN2;

  IF _N_=1 THEN DO;
```

```
          FILE "&FILEOUT1." MOD ;

          /** MF Changes ROW 1 **/
          PUT    "<center><table    border='&border.'    cellpadding='2'    cellspacing='0'
bgcolor='#D8D8D8' width='&width2.'>";
          PUT "<tr bgcolor='white'>";
          PUT "        <td colspan=""" SPAN1 +(-1) """ valign='top' bgcolor='#999999'><img
border='0' height='25' width='242' src=&logo.></td>";
          PUT "           <td  colspan=""" SPAN2 +(-1)  """  align='right'  valign='bottom'
bgcolor='#999999'>";
          PUT "             <div align='right'>";
          PUT "                  <a  href='..\html\&prefix.&var1.-&var2.-&var3.-0&unq..htm'
&target.><img src='&imgdir.\&click_image.' alt='&click_alt.' border=0></a>&htmlsp.";
          PUT "            <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp. &htmlsp.";


          PUT "&goback.";

          PUT "                  <noscript><a href=""" HREFBACK   +(-1)  """  &target.><img
src=&back_but. border='0' alt='Return to Top Level'></a></noscript>";
          PUT "         &htmlsp.";
          PUT "            <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a></div>";
          PUT "    </td>";
          PUT "</tr>";

          /** MF Changes ROW 2 **/

          PUT "<tr>";
          PUT "           <td valign='center' align='center' colspan=""" COLUMNS +(-1) """
bgcolor='#D8D8D8'>";
          PUT "              <font face='&fontface.' color='#3333cc' size='5'><b>&major.
&comma.  &sub_regs. <br>";

          PUT "               &sub_ben.</b></font><br>";
          /*** For trend data for each benefit type, display benefit type - RSG 08/07/03***/
            %if &var4. ne 0 %then %do;
          PUT "              <font face='&fontface.' color='#3333cc' size='4'><b>";
            PUT "            &sub2_ben.</b></font>";
            %end;
          PUT "       </td>";
          PUT "</tr>";


          /*** 3rd Row ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
          /**PUT "<td></td>"**/


          /*** 4th Row start (column 1) ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
          %if &prefix=f %then %do;
            PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
            PUT  "<td  align='left'  valign='bottom'><img  src='&imgdir.\blank_75_50.gif'
border=0></td>";
          %end;
          %else %do;
            PUT "<tr bgcolor= &hdcolr.><font face='&fontface.'>";
            PUT "<td width='10%'>&htmlsp.</td>";
          %end;


          /*------------------------*/
          /* 2000/11: begin xls code */
          /*------------------------*/
          %if &outxls.=1 %then %do;
            FILE XLSTITLE;
            PUT "&major. &comma. &sub_regs.";
              %if &var4. = 0 %then %do;
                 PUT "%cmpres('&sub_ben.')";
```

```
                    %end;
                    %else %do;
                          PUT "%CMPRES('&sub_ben. &comma. &sub2_ben.')";
                    %end;
                %end;
                /*------------------------*/
                /* 2000/11: begin xls code */
                /*------------------------*/
        END;

        FILE "&FILEOUT1." MOD ;                    /* 2000/11: refer back to htm file */
        /*** Print out column headings ***/


            LENGTH HREFf1 $250;
            LENGTH HREFf2 $250;
            LENGTH HREFf3 $250;

            LENGTH HREFp1 $250;
            LENGTH HREFp2 $250;
            LENGTH HREFp3 $250;

            LENGTH HREF5  $250;


            ****7-29-2002 DKB ADDED LINKS TO COMPONENT PAGES OF PREVIOUS QUARTERS FROM TREND
PAGE****;
            ***********************THIS     WILL     NEED     TO     BE     UPDATED     EACH
QUARTER*********************;
                ***FRAMES***;
                HREFf1=COMPRESS("..\Period1\f&var1.-&var2.-&var3.-0.htm");
                HREFf2=COMPRESS("..\Period2\f&var1.-&var2.-&var3.-0.htm");
                HREFf3=COMPRESS("f&var1.-&var2.-&var3.-0.htm");

                ***NO FRAMES***;
                HREFp1=COMPRESS("..\Period1\p&var1.-&var2.-&var3.-0.htm");
                HREFp2=COMPRESS("..\Period2\p&var1.-&var2.-&var3.-0.htm");
                HREFp3=COMPRESS("p&var1.-&var2.-&var3.-0.htm");

            ****HELP FILE FOR TREND COLUMN***;
                HREF5=COMPRESS("..\html\help.htm#trend");      /*7-29-2002 DKB ADDED LINK FOR TREND
SECTION OF HELP FILE*/

            ****************************************************;

                /* MER 05/09/2009 Temporary fix for V4 transition
                   No Customer Service composite for 2007 and 2008 */
                %if &var3.=4 %then %do;
                    HREFf1=HREF5;
                    HREFf2=HREF5;
                    HREFp1=HREF5;
                    HREFp2=HREF5;
                %end;

        /*** 4th Row (columns 2+) ***/
        /*** If quarter column then HREF link is different ****/
        /*** ÛÛ FRAMES SECTION ÛÛ ***/


        %if &prefix=f %then %do;
          %if &var3.=4 and &seppage.=2 %then %do;
             IF TIMEPD = "2007" OR TIMEPD = "2008" THEN DO;
                IMAGE=COMPRESS("&imgdir.\col"||_N_||"_R.gif");
             END;
             ELSE DO;
                IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");
             END;
          %end;
          %else %if &var3.=1 or &var3.=3 %then %do;
             IF TIMEPD = "Trend" THEN DO;
                IMAGE=COMPRESS("&imgdir.\col"||_N_||"_trans.gif");
             END;
             ELSE DO;
                IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");
```

```
            END;
        %end;
        %else %do;
            IMAGE=COMPRESS("&imgdir.\col"||_N_||".gif");   *DKB CHANGED IMAGE NAME FROM QTR TO
COL;
        %end;


        IF _N_=1 THEN HREF=HREFf1;
        ELSE IF _N_=2 THEN HREF=HREFf2;
        ELSE IF _N_=3 THEN HREF=HREFf3;
        ELSE IF _N_=4 THEN HREF=HREF5;
           if timepd ne "TREND*" then
                PUT "<td align='center' valign='bottom'><a href="""" HREF +(-1) """" &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
             else do;
                IMAGE=COMPRESS("&imgdir.\col"||_N_||"_R.gif");
                PUT "<td align='center' valign='bottom'><a href="""" HREF +(-1) """" &target.><IMG
SRC='" IMAGE "' alt='" TIMEPD "' BORDER=0></a></td>";
             end;
        %end;
        %else %do;
          IF _N_=1 THEN HREF=HREFp1;
          ELSE IF _N_=2 THEN HREF=HREFp2;
          ELSE IF _N_=3 THEN HREF=HREFp3;
          ELSE IF _N_=4 THEN HREF=HREF5;
          /*7-29-2002 DKB ADDED LINK TO TREND SECTION OF HELP FILE*/

        %if &var3.=4 and &seppage.=2 %then %do;
            IF TIMEPD = "2007" OR TIMEPD = "2008" THEN DO;
                PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href="""" HREF +(-1) """" &target.>" &HEADVAR. "<b>*</b></a></font></td>";
            END;
            ELSE DO;
                PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href="""" HREF +(-1) """" &target.>" &HEADVAR. "</a></font></td>";
            END;
        %end;
        %else %if &var3.=1 or &var3.=3 %then %do;
            IF TIMEPD = "Trend" THEN DO;
                PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href="""" HREF +(-1) """" &target.>" &HEADVAR. "<b>#</b></a></font></td>";
            END;
            ELSE DO;
                PUT  "<td  width='10%'  align='center'  valign='bottom'><font  face='&fontface.'
size='1'><a href="""" HREF +(-1) """" &target.>" &HEADVAR. "</a></font></td>";
            END;
        %end;
        %else %do;
            PUT   "<td   width='10%'   align='center'   valign='bottom'><font   face='&fontface.'
size='1'><a href="""" HREF +(-1) """" &target.>" &HEADVAR. "</a></font></td>";
        %end;

    %end;


      IF EOF THEN DO;
        PUT "</font></tr>";
      END;

    RUN;

    %end;

    /*** ÛÛ FRAMES SECTION ÛÛ ***/
    %if &prefix=f %then %do;
      /*** Close out header HTML page ***/
      DATA _NULL_;
        FILE "&FILEOUT1." MOD;

        PUT "</center></table>";
        PUT "</body></html>";
      RUN;
```

```
     /*** Since done making frame 1 page then assign fileout1 = frame 2 ***/
     %let fileout1=&fileout3.;

     /*** Initialize out data HTML page ***/
     DATA _NULL_;
       FILE "&FILEOUT3.";

       PUT "<! Created &datetime.>";
       PUT "<html>";
       PUT    "<body    bgcolor='#999999'    text='#000099'    link='#660066'    alink='#660066'
vlink='#996699'>";
       PUT    "<center><table   border='1'   cellpadding='2'   cellspacing='0'   bgcolor='#D8D8D8'
cols=&columns. width=640>";
     RUN;



     %end;




     /*************************************/
     /****   Put out rest of table      ****/
     /****   Colored scores and Stub    ****/
     /*************************************/
     %if &seppage.=0 OR &var3.=6 OR &var3.=7 OR &var3.=8 OR &var3.=9 %then %do;
     DATA HTML3;
       SET SUBSET4;
     RUN;
     %end;
     %else %if &seppage.=1 %then %do;
     DATA HTML3;
       SET SUBSET4;

       IF TIMEPD="&currentperiod.";

       /*** Since splitting up table need to delete some records ***/

       %IF &VAR3. NE 0 %THEN %DO;
          IF BENTYPE="Composite" THEN DELETE;
       %END;
     RUN;

     %end;
     %else %if &seppage.=2 %then %do;

     DATA HTML3;
       SET SUBSET4;
       /*** Since splitting up table need to delete some records ***/
       /*** Modified 2-2 MAB to deal with new period values **/


       IF BENTYPE=&BEN_TYPE;


     RUN;
     %end;

     /*ÛÛÛÛ ALL MAJGRPS ÛÛÛÛ*/
     %if &var1.=0 %then %do;

     DATA HTML4;
       SET HTML3 END=EOF;


       IF MAJGRP="Prime Enrollees" THEN MAJNUM=1;
       IF MAJGRP="Enrollees with Military PCM"  THEN MAJNUM=2;
       IF MAJGRP="Enrollees with Civilian PCM" THEN MAJNUM=3;
       IF MAJGRP="Standard/Extra Users" THEN MAJNUM=4;
       IF MAJGRP="Purchased Care Users" THEN MAJNUM=5;
       IF MAJGRP="Active Duty" THEN MAJNUM=6;
       IF MAJGRP="Active Duty Dependents" THEN MAJNUM=7;
```

```
      IF MAJGRP="Retirees and Dependents" THEN MAJNUM=8;
      IF MAJGRP="All Users" THEN MAJNUM=9;


   /*** HREF link to another page ***/
 /*  HREF=COMPRESS("..\html\&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");
    RSG 02/2005 - changed for period1-3, link goes to that period component page*/
    HREF=COMPRESS("&prefix."||MAJNUM||"-0-&var3.-&var4.&q..htm");

   LENGTH HREFQ LMAJGRP $ 100;
   RETAIN LMAJGRP;

   IF _N_=1 THEN DO;
     LMAJGRP=" ";
     ROW=0;


    /*** Add links to trend data 7.6.2001 MAB ***/
    %let columns_less1=%EVAL(&columns.-1);
    %if &seppage.=0 %then %do;
         FILE "&FILEOUT1." MOD ;
         PUT "<tr bgcolor= &gray.><td width='" WIDTH_COL1 "'><font face='&fontface.'
size='2'><b>Trends</b></font></td>";

         %do i=1 %to 11;
            %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;    ***MJS 04/14/03
Changed 8,9,10,11 to 7,8,9,10;
                 HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");
            %end;
            %else %do;
                 HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");
            %end;
            %if &prefix.=f %then %do;
               PUT "<td width='" WIDTH3 "'><a href='" HREFQ "' &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
               %end;
               %else %do;
               PUT "<td><a     href='"     HREFQ     "'     &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
               %end;
         %end;
         PUT "</tr>";
    %end;

   END;



   IF LMAJGRP^=MAJGRP THEN DO;              /*** Start new row ***/
       FILE "&FILEOUT1." MOD ;
       ROW+1;
       IF LMAJGRP^=" " THEN PUT "</tr>";


       /*** Column 1 / Row 1 ***/
       /*** ÛÛ FRAMES SECTION ÛÛ ***/
       %if &prefix=f %then %do;
           IF MAJGRP IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" MAJGRP "</font></b></td>";    /*** no HREF links ***/
       %end;
       %else %do;
           IF  MAJGRP  IN("Benchmark")  THEN  PUT  "<tr><td><b><font  face='&fontface.'
size='2'>" MAJGRP "</font></b></td>";                    /*** no HREF links ***/
       %end;

       /*** Column 1 / Row 2+ ***/

       ELSE  IF  MOD(ROW,2)=0  THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href="""" HREF +(-1) """" &target.> " MAJGRP " </a></font></td>";   /** Shade row **/
       ELSE  PUT  "<tr><td><font  face='&fontface.'  size='2'><a  href="""" HREF +(-1)  """"
&target.> " MAJGRP " </a></font></td>";


       /*------------------------*/
```

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```
                  /* 2000/11: begin xls code */
                  /*------------------------*/
                   %if &outxls.=1 %then %do;
                     FILE XLSDATA;
                     IF LMAJGRP^=" " THEN          PUT " ";
                     IF REGION IN("Benchmark") THEN PUT REGION '09'x @@;    /* '09'x ensures text
string is put into one cell */
                     ELSE IF MOD(ROW,2)=0 THEN       PUT MAJGRP '09'x @@;    /* rather than spanning
across cells           */
                     ELSE                            PUT MAJGRP '09'x @@;
                   %end;
                  /*------------------------*/
                  /* 2000/11: end xls code   */
                  /*------------------------*/

               LMAJGRP=MAJGRP;
         END;


         /*** Column 2+ ***/
         /********************************************/
         /**** Need to output different formats   ****/
         /********************************************/
         FILE "&FILEOUT1." MOD ;                  /* 2000/11: refer back to htm file */


      IF MAJGRP IN("Benchmark") THEN DO;
           IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
               ELSE    IF   SCORE=.A    THEN    PUT    "<td    width='"    WIDTH3    "'    align='center'
valign='bottom'><b><font face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
               ELSE  PUT  "<td  width='"  WIDTH3  "'  align='center'  valign='bottom'><b><font
face='&fontface.'  color=&blue.  size='2'>"  SCORE   3.0   "<!CODE=   "   +(-1)   ORDER   Z5.
"></font></b></td>";
         END;
         ELSE DO;
           IF SCORE=. THEN DO;
               PUT     "<td     align='center'     valign='bottom'><b><font     face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           END;
           ELSE IF SCORE=.A THEN DO;
               PUT     "<td     align='center'     valign='bottom'><b><font     face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           END;
           ELSE DO;
               IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE    IF    SIG=.    THEN    PUT    "<td    align='center'    valign='bottom'><b><font
face='&fontface.' size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE    IF    SIG=.A    THEN    PUT    "<td    align='center'    valign='bottom'><b><font
face='&fontface.' size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE    IF    SIG=-1    THEN    PUT    "<td    align='center'    valign='bottom'><i><font
face='&fontface.'  size='2'  color=&red.>"  SCORE   3.0       "<!CODE=   "   +(-1)   ORDER   Z5.
"></font></i></td>";
                ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>"
SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
           END;
         END;



         /*------------------------*/
         /* 2000/11: begin xls code */
         /*------------------------*/
         %if &outxls.=1 %then %do;
           FILE XLSDATA;
           IF MAJGRP IN("Benchmark") THEN DO;
               IF SCORE=. THEN         PUT "***" '09'x @@;
               ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
               ELSE                   PUT SCORE '09'x @@;
           END;
           ELSE DO;
             IF SCORE=. THEN DO;
```

```
                PUT "***" '09'x @@;
          END;
          ELSE IF SCORE=.A THEN DO;
                PUT "NA" '09'x @@;
          END;
          ELSE DO;
                IF SIG=1 THEN       PUT SCORE '09'x @@;
                ELSE IF SIG=. THEN  PUT "***" '09'x @@;
                ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
                ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
                ELSE                PUT SCORE '09'x @@;
          END;
        END;
      %end;
      /*-----------------------*/
      /* 2000/11: end xls code  */
      /*-----------------------*/

      IF EOF THEN DO;
          FILE "&FILEOUT1." MOD ;                         /* 2000/11: to refer back to htm file
*/
          PUT "</tr>";  /*** terminate last row ***/

          %BOTTOM_NOTES;  /** Macro with bottom notes **/


        /*-----------------------*/
        /* 2000/11: begin xls code */
        /*-----------------------*/
         %if &outxls.=1 %then %do;
            FILE XLSDATA;
            PUT; PUT;
            %if (&var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2) %then %do;
              PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1
through &SRCYR2";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
                                                                        /*           MER
11/21/08 Changed "and" to "through" */
            %end;
            %else %do;
              PUT "Source: &SRCYR2 Health Care Survey of DOD Beneficiaries";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
            %end;
              PUT "Indicates score significantly exceeds benchmark";
              PUT "Indicates score significantly falls short of benchmark";
              PUT "NA Indicates not applicable";
            %if &var3.=4 and &seppage.=2 %then %do;
              PUT "* Indicates scores were not available that year";
            %end;
              PUT "*** Indicates suppressed due to small sample size";
            %if &var3.=0 %then %do;
              PUT "# Indicates change to composite";
            %end;
            %else %if &var3.=1 or &var3.=3 or (&var3.=11 and &seppage.=1) %then %do;
              PUT "# Indicates change to questions";
            %end;
         %end;

        /*-----------------------*/
        /* 2000/11: end xls code  */
        /*-----------------------*/

      END;
    RUN;
    %end;




    /*ÛÛÛÛ All Regions ÛÛÛÛ*/
    %if &var2.=0 %then %do;
    DATA HTML4;
      SET HTML3 END=EOF;
```

```
      LENGTH LREGION HREFQ $ 100;
      RETAIN LREGION;

      IF _N_=1 THEN DO;
         LREGION=" ";
         REGNUM=1;
         ROW=0;



        %let columns_less1=%EVAL(&columns.-1);
        %if &seppage.=0 %then %do;
             FILE "&FILEOUT1." MOD ;
             PUT "<tr  bgcolor= &gray.><td  width='"  WIDTH_COL1  "'><font  face='&fontface.'
size='2'><b>Trends</b></font></td>";

              %do i=1 %to 11;    ***RSG 02/2005 changed 11 to 12 since we now have 12 benefits;
                %if &i.^=6 AND &i.^=7 AND &i.^=8 AND &i.^=9 %then %do;    ***MJS 04/14/03
Changed from 8,9,10,11 to 7,8,9,10;
                   HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0q.htm");   /*** href  to
2nd html file ***/
                %end;

                %else %do;
                   HREFQ=COMPRESS("..\html\&prefix.&var1.-&var2.-&i.-0.htm");   /*** href  to
2nd html file ***/
                %end;
                %if &prefix.=f %then %do;
                  PUT "<td  width='"  WIDTH3  "'><a  href='"  HREFQ  "'  &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
            %end;
            %else %do;
                   PUT      "<td><a      href='"      HREFQ      "'     &target.><CENTER><img
src='&imgdir.\trend_row.gif' border=0></CENTER></a></td>";
            %end;
             %end;
             PUT "</tr>";
        %end;


      END;


      IF LREGION^=REGION THEN DO;              /*** Start new row ***/
          FILE "&FILEOUT1." MOD ;
          ROW+1;
          IF LREGION^=" " THEN PUT "</tr>";  /*** terminate previous row ***/


          /*------------------------*/
          /* 2000/11: begin xls code */
          /*------------------------*/
          %if &outxls.=1 %then %do;
            FILE XLSDATA;
            IF LREGION^=" " THEN PUT " ";            /*** terminate previous row ***/
            FILE "&FILEOUT1." MOD ;                 /* 2000/11: to refer back to htm file */
          %end;
          /*------------------------*/
          /* 2000/11: end xls code   */
          /*------------------------*/


          /*** Column 1 / Row 1 ***/
          /*** ÛÛ FRAMES SECTION ÛÛ ***/
          %if &prefix=f %then %do;
             IF REGION IN("Benchmark") THEN PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
          %end;
          %else %do;
             IF   REGION  IN("Benchmark")  THEN  PUT  "<tr><td><b><font  face='&fontface.'
size='2'>" REGCAT "</font></b></td>";  /*** no HREF links ***/
          %end;
          ELSE DO;   /*** HREF links for each region ***/
```

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```
                    /*HREF=COMPRESS("..\html\&prefix.&var1.-"||REGNUM||"-&var3.-&var4.&q..htm");*/
/** MAB 3-16-2005 Added VAR1 **/
                /*RSG 02/2005 - Changed link so period1-3 will link to appropriate component
page*/
                HREF=COMPRESS("&prefix.&var1.-"||REGNUM||"-&var3.-&var4.&q..htm");

                /*** Column 1 / Row 2+ ***/
                %if &prefix=f %then %do;
                %if &var1.=3 or &var1.=4 or &var1.=5 or &var1.=7 or &var1.=8 %then %do;
                        IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'> " REGCAT " </font></td>";
                              ELSE  PUT  "<tr><td><font  face='&fontface.'  size='2'>  "  REGCAT  "
</font></td>";
                %end;
                %else %do;
                        if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                           regcat = "OVERSEAS" or regcat="US MHS" then do;
                        IF    MOD(ROW,2)=0    THEN    PUT    "<tr   bgcolor=   &gray.><td><b><font
face='&fontface.' size='2'> " REGCAT " </b></font></td>";
                              ELSE PUT "<tr><td><b><font face='&fontface.' size='2'> " REGCAT "
</b></font></td>";
                        end;
                        else if regcat = "ARMY" or regcat = "NAVY" or regcat = "AIR FORCE" or
                              regcat = "OTHER" then do;
                        IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'> " REGCAT " </font></td>";
                              ELSE  PUT  "<tr><td><font  face='&fontface.'  size='2'>  "  REGCAT  "
</font></td>";
                        end;
                        else do;
                              IF   MOD(ROW,2)=0   THEN   PUT   "<tr   bgcolor=   &gray.><td><font
face='&fontface.' size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>";
/** Shade row **/
                              ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF
+(-1) """ &target.> " REGCAT " </a></font></td>";
                              end;
                    %end;
            %end;
                %else %do;
                %if &var1.=3 or &var1.=4 or &var1.=5 or &var1.=7 or &var1.=8 %then %do;
                    IF MOD(ROW,2)=0 THEN PUT "<tr bgcolor= &gray.><td><font   face='&fontface.'
size='2'> " REGCAT " </font></td>";
                              ELSE  PUT  "<tr><td><font  face='&fontface.'  size='2'>  "  REGCAT  "
</font></td>";
                    %end;
                    %else %do;
                        if regcat = "NORTH" or regcat = "SOUTH" or regcat="WEST" or
                           regcat = "OVERSEAS" or regcat="US MHS" then do;
                        IF    MOD(ROW,2)=0    THEN    PUT    "<tr   bgcolor=   &gray.><td><b><font
face='&fontface.' size='2'> " REGCAT " </b></font></td>";
                              ELSE PUT "<tr><td><b><font face='&fontface.' size='2'> " REGCAT "
</b></font></td>";
                        end;
                        else if regcat = "ARMY" or regcat = "NAVY" or regcat = "AIR FORCE" or
                              regcat = "OTHER" then do;
                              IF   MOD(ROW,2)=0   THEN   PUT   "<tr   bgcolor=   &gray.><td><font
face='&fontface.' size='2'> " REGCAT " </font></td>";
                              ELSE  PUT  "<tr><td><font  face='&fontface.'  size='2'>  "  REGCAT  "
</font></td>";
                        end;
                        else do;
                              IF   MOD(ROW,2)=0   THEN   PUT   "<tr   bgcolor=   &gray.><td><font
face='&fontface.' size='2'><a href=""" HREF +(-1) """ &target.> " REGCAT " </a></font></td>";
/** Shade row **/
                              ELSE PUT "<tr><td><font face='&fontface.' size='2'><a href=""" HREF
+(-1) """ &target.> " REGCAT " </a></font></td>";
                              end;
                    %end;
                %end;

                REGNUM+1;
```

```
                END;

                /*------------------------*/
                /* 2000/11: begin xls code */
                /*------------------------*/
                %if &outxls.=1 %then %do;
                  FILE XLSDATA;
                  IF REGION IN("Benchmark") THEN  PUT REGCAT '09'x @@;   /* no logic difference */
                  ELSE DO;
                     IF MOD(ROW,2)=0 THEN              PUT REGCAT '09'x @@;    /* just presentation
difference in htm */
                     ELSE                             PUT REGCAT '09'x @@;    /* keeping as is to
preserve htm code structure */
                  END;
                %end;
                /*------------------------*/
                /* 2000/11: end xls code   */
                /*------------------------*/

                LREGION=REGION;
        END;


        /*** Column 2+ ***/
        /*******************************************/
        /**** Need to output different formats    ****/
        /*******************************************/
        FILE "&FILEOUT1." MOD ;                 /* 2000/11: refer back to htm file */
        IF REGION IN("Benchmark") THEN DO;
            %if &prefix.=f %then %do;
             IF SCORE=. THEN PUT "<td width='" WIDTH3 '' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE  IF  SCORE=.A  THEN   PUT  "<td  width='"  WIDTH3  '' align='center'
valign='bottom'><b><font face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
                ELSE   PUT   "<td  width='"  WIDTH3  '' align='center'  valign='bottom'><b><font
face='&fontface.'  color=&blue.  size='2'>"  SCORE  3.0  "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></b></td>";
            %end;
            %else %do;
             IF SCORE=. THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE  IF  SCORE=.A  THEN  PUT  "<td  align='center'  valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE PUT "<td align='center' valign='bottom'><b><font face='&fontface.' color=&blue.
size='2'>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
            %end;
        END;
        ELSE DO;
           IF SCORE=. THEN DO;
             PUT      "<td      align='center'      valign='bottom'><b><font      face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           END;
           ELSE IF SCORE=.A THEN DO;
             PUT      "<td      align='center'      valign='bottom'><b><font      face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
           END;
           ELSE DO;
               IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0  "<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE  IF  SIG=.   THEN  PUT  "<td  align='center'  valign='bottom'><b><font
face='&fontface.' size='2'>***<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE  IF  SIG=.A  THEN  PUT  "<td  align='center'  valign='bottom'><b><font
face='&fontface.' size='2'>NA<!CODE= " +(-1) ORDER Z5.  "></font></b></td>";
                ELSE  IF  SIG=-1  THEN  PUT  "<td  align='center'  valign='bottom'><i><font
face='&fontface.'  size='2'  color=&red.>"  SCORE  3.0    "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></i></td>";
                ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>"
SCORE 3.0 "<!CODE= " +(-1) ORDER Z5.  "></font></td>";
           END;
        END;
```

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```
        /*-----------------------*/
        /* 2000/11: begin xls code */
        /*-----------------------*/
        %if &outxls.=1 %then %do;
          FILE XLSDATA;
          IF REGION IN("Benchmark") THEN DO;
                IF SCORE=. THEN        PUT "***" '09'x @@;
                ELSE IF SCORE=.A THEN PUT "NA"  '09'x @@;
                ELSE                   PUT SCORE '09'x @@;
          END;
          ELSE DO;
            IF SCORE=. THEN DO;
                PUT "***" '09'x @@;
            END;
            ELSE IF SCORE=.A THEN DO;
                PUT "NA" '09'x @@;
            END;
            ELSE DO;
                IF SIG=1 THEN        PUT SCORE '09'x @@;
                ELSE IF SIG=. THEN   PUT "***" '09'x @@;
                ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
                ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
                ELSE                 PUT SCORE '09'x @@;
            END;
          END;
        %end;
        /*-----------------------*/
        /* 2000/11: end xls code   */
        /*-----------------------*/



        IF EOF THEN DO;
            FILE "&FILEOUT1." MOD ;                /* 2000/11: refer back to htm file */
            PUT "</tr>";  /*** terminate last row ***/


            %BOTTOM_NOTES;  /** Macro with bottom notes **/


            /*-----------------------*/
            /* 2000/11: begin xls code */
            /*-----------------------*/
            %if &outxls.=1 %then %do;
                FILE XLSDATA;
                PUT; PUT;
                %if (&var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2) %then %do;
                  PUT "Source: Health  Care  Surveys  of  DoD  Beneficiaries  conducted  in  &SRCYR1
through &SRCYR2";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
                                                                                /*        MER
11/21/08 Changed "and" to "through" */
                %end;
                %else %do;
                  PUT "Source: &SRCYR2 Health Care Survey of DOD Beneficiaries";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
                %end;
                  PUT "Indicates score significantly exceeds benchmark";
                  PUT "Indicates score significantly falls short of benchmark";
                  PUT "NA Indicates not applicable";
                %if &var3.=4 and &seppage.=2 %then %do;
                  PUT "* Indicates scores were not available that year";
                %end;
                  PUT "*** Indicates suppressed due to small sample size";
                %if &var3.=0 %then %do;
                  PUT "# Indicates change to composite";
                %end;
                %else %if &var3.=1 or &var3.=3 or (&var3.=11 and &seppage.=1) %then %do;
                  PUT "# Indicates change to questions";
                %end;
            %end;
            /*-----------------------*/
            /* 2000/11: end xls code   */
            /*-----------------------*/
```

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```
              END;

       RUN;

       %end;




       /*ÛÛÛÛ Single Regions ÛÛÛÛ*/
       /* This code is not applicable for the 2000 report cards */
       /*  since not enough data to display sub-region info. */
       /*  Will leave in code in case this changes */
       %if &var2.^=0 AND &var1.^=0 %then %do;
       DATA HTML4;
         SET HTML3 END=EOF;

         LENGTH LREGCAT $ 100;
         RETAIN LREGCAT;

         IF _N_=1 THEN DO;
            LREGCAT=" ";
            ROW=0;
         END;

         IF LREGCAT^=REGCAT THEN DO;               /*** Start new row ***/
              FILE "&FILEOUT1." MOD ;
              ROW+1;
              IF LREGCAT^=" " THEN PUT "</tr>";  /*** terminate previous row ***/
              IF REGCAT IN("Benchmark") THEN  PUT "<tr><td width='" WIDTH_COL1 "'><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
                ELSE IF SUBSTR(REGCAT,1,2) = "US" THEN PUT "<tr bgcolor= &gray.><td><b><font
face='&fontface.' size='2'>" REGCAT "</font></b></td>";
                ELSE IF REGCAT NE "ARMY" AND REGCAT NE "NAVY" AND REGCAT NE "AIR FORCE" AND REGCAT
NE "OTHER" AND
                       UPCASE(SUBSTR(REGCAT,1,5))  NE  "NORTH"  AND  UPCASE(SUBSTR(REGCAT,1,5))  NE
"SOUTH" AND
                       UPCASE(SUBSTR(REGCAT,1,4))  NE  "WEST"  AND  UPCASE(SUBSTR(REGCAT,1,8))  NE
"OVERSEAS" THEN DO;
                       IF  MOD(ROW,2)=0  THEN  PUT  "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'><a href=""..\HTML\help.htm#MTFs"">" REGCAT " </a></font></td>"; /** Shade row **/
                       ELSE        PUT        "<tr><td><font      face='&fontface.'       size='2'><a
href=""..\HTML\help.htm#MTFs"">" REGCAT " </a></font></td>";
                    END;
                 ELSE DO;
                       IF  MOD(ROW,2)=0  THEN  PUT  "<tr bgcolor= &gray.><td><font face='&fontface.'
size='2'>" REGCAT "</font></td>";   /** Shade row **/
                       ELSE PUT "<tr><td><font face='&fontface.' size='2'>" REGCAT "</font></td>";
                    END;

                 /*------------------------*/
                 /* 2000/11: begin xls code */
                 /*------------------------*/
                 %if &outxls.=1 %then %do;
                   FILE XLSDATA;
                   IF LREGCAT^=" " THEN PUT " ";
                   IF REGCAT IN("Benchmark") THEN      PUT REGCAT '09'x @@;           /* no logic
difference */
                     ELSE  IF  SUBSTR(REGCAT,1,5) = "CONUS" THEN PUT REGCAT '09'x @@;     /*** MAB
3/27/2005 Fixed error ***/
                       ELSE IF MOD(ROW,2)=0 THEN              PUT REGCAT '09'x @@;          /* just
presentation difference in htm */
                         ELSE                            PUT REGCAT '09'x @@;        /* keeping as is
to preserve htm code structure */
                 %end;
                 /*------------------------*/
                 /* 2000/11: end xls code   */
                 /*------------------------*/


                 LREGCAT=REGCAT;
```

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```
           END;




           /*********************************************/
           /**** Need to output different formats    ****/
           /*********************************************/
           FILE "&FILEOUT1." MOD ;                  /* 2000/11: refer back to htm file */
           IF REGION IN("Benchmark") THEN DO;
               IF SCORE=. THEN PUT "<td width='" WIDTH3 "' align='center' valign='bottom'><b><font
face='&fontface.' color=&blue. size='2'>***<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
               ELSE   IF   SCORE=.A   THEN   PUT   "<td   width='"   WIDTH3   "'   align='center'
valign='bottom'><b><font face='&fontface.' color=&blue. size='2'>NA<!CODE= " +(-1) ORDER Z5.
"></font></b></td>";
               ELSE   PUT   "<td   width='"   WIDTH3   "'   align='center'   valign='bottom'><b><font
face='&fontface.'  color=&blue.  size='2'>"  SCORE  3.0  "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></b></td>";
           END;
           ELSE DO;
             IF SCORE=. THEN DO;
               PUT     "<td    align='center'    valign='bottom'><b><font    face='&fontface.'
size='2'>***<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
             END;
             ELSE IF SCORE=.A THEN DO;
               PUT     "<td    align='center'    valign='bottom'><b><font    face='&fontface.'
size='2'>NA<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
             END;
             ELSE DO;
               IF SIG=1 THEN PUT "<td align='center' valign='bottom'><b><font face='&fontface.'
size='2' color=&green.>" SCORE 3.0 "<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
               ELSE    IF   SIG=.    THEN   PUT    "<td   align='center'   valign='bottom'><b><font
face='&fontface.' size='2'>***<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
               ELSE    IF    SIG=.A    THEN    PUT    "<td    align='center'    valign='bottom'><b><font
face='&fontface.' size='2'>NA<!CODE= " +(-1) ORDER Z5. "></font></b></td>";
               ELSE    IF    SIG=-1    THEN    PUT    "<td    align='center'    valign='bottom'><i><font
face='&fontface.'  size='2'  color=&red.>"  SCORE  3.0    "<!CODE=  "  +(-1)  ORDER  Z5.
"></font></i></td>";
               ELSE PUT "<td align='center' valign='bottom'><font face='&fontface.' size='2'>"
SCORE 3.0 "<!CODE= " +(-1) ORDER Z5. "></font></td>";
             END;
           END;

           /*------------------------*/
           /* 2000/11: begin xls code */
           /*------------------------*/
           %if &outxls.=1 %then %do;
             FILE XLSDATA;
             IF REGION IN("Benchmark") THEN DO;
                 IF SCORE=. THEN        PUT "***" '09'x @@;
                 ELSE IF SCORE=.A THEN  PUT "NA"  '09'x @@;
                 ELSE                   PUT SCORE '09'x @@;
             END;
             ELSE DO;
               IF SCORE=. THEN DO;
                   PUT "***" '09'x @@;
               END;
               ELSE IF SCORE=.A THEN DO;
                   PUT "NA" '09'x @@;
               END;
               ELSE DO;
                   IF SIG=1 THEN        PUT SCORE '09'x @@;
                   ELSE IF SIG=. THEN   PUT "***" '09'x @@;
                   ELSE IF SIG=.A THEN PUT "NA"  '09'x @@;
                   ELSE IF SIG=-1 THEN PUT SCORE '09'x @@;
                   ELSE                 PUT SCORE '09'x @@;
               END;
             END;
           %end;
           /*------------------------*/
           /* 2000/11: end xls code   */
           /*------------------------*/


           IF EOF THEN DO;
```

```
        FILE "&FILEOUT1." MOD ;                   /* 2000/11: refer back to htm file */
        PUT "</tr>";  /*** terminate last row ***/

        %BOTTOM_NOTES;  /** Macro with bottom notes **/


        /*------------------------*/
        /* 2000/11: begin xls code */
        /*------------------------*/
        %if &outxls.=1 %then %do;
           FILE XLSDATA;
           PUT; PUT;
           %if (&var3.=6 or &var3.=7 or &var3.=8 or &var3.=9 or &seppage.=2) %then %do;
              PUT "Source: Health Care Surveys of DoD Beneficiaries conducted in &SRCYR1
through &SRCYR2";   ***MJS 03/24/04 Changed hard-coded year to macro variable;
                                                                            /*          MER
11/21/08 Changed "and" to "through" */
           %end;
           %else %do;
              PUT "Source: &SRCYR2 Health Care Survey of DOD Beneficiaries";   ***MJS 03/24/04
Changed hard-coded year to macro variable;
           %end;
              PUT "Indicates score significantly exceeds benchmark";
              PUT "Indicates score significantly falls short of benchmark";
              PUT "NA Indicates not applicable";
           %if &var3.=4 and &seppage.=2 %then %do;
              PUT "* Indicates scores were not available that year";
           %end;
              PUT "*** Indicates suppressed due to small sample size";
           %if &var3.=0 %then %do;
              PUT "# Indicates change to composite";
           %end;
           %else %if &var3.=1 or &var3.=3 or (&var3.=11 and &seppage.=1) %then %do;
              PUT "# Indicates change to questions";
           %end;
        %end;
        /*------------------------*/
        /* 2000/11: end xls code   */
        /*------------------------*/

     END;

   RUN;

   %end;



   /***********************************/
   /****  Print out footer info     ****/
   /***********************************/
   DATA _NULL_;
       FILE "&FILEOUT1." MOD ;
       LENGTH HREF $250;


       /** Determine where back button should link to **/
       %if &var1.=0 %then %do;
          HREFBACK=COMPRESS("&prefix.9-0-0-0.htm");
       %end;
       %else %do;
          HREFBACK=COMPRESS("&prefix.&var1.-0-0-0.htm");
       %end;


       /** MF Changes **/
       PUT "<tr>";
       PUT "    <td colspan='&columns.'>";
       PUT "        <center>";
       PUT "                 <a href='..\html\index.htm' &target.><img src=&home_but. border='0'
alt='Return to Main Page'></a>&htmlsp.&htmlsp.";
                /*** 7-17 MAB added JS code to go back ***/
       PUT "&goback.";
```

```
          PUT "               <noscript><a href=""" HREFBACK  +(-1) """ &target.><img src=&back_but.
border='0' alt='Return to Top Level'></a></noscript>";

          PUT "                <a href='..\html\help.htm' &target.><img src=&help_but. border='0'
alt='Help'></a><br>";
          PUT "           <font face='Arial,Helvetica,Swiss,Geneva' size='2'><b>&grpmsg.<br>";
          PUT "           </b></font>";



       majgrp1=COMPRESS("&prefix.1-&var2.-&var3.-&var4.&q..htm");
       majgrp2=COMPRESS("&prefix.2-&var2.-&var3.-&var4.&q..htm");
       majgrp3=COMPRESS("&prefix.3-&var2.-&var3.-&var4.&q..htm");      ***MJS 05/04/03 Removed
Civilian PCM;
       majgrp4=COMPRESS("&prefix.4-&var2.-&var3.-&var4.&q..htm");    ***(majgrp3), and changed
4-8 to 3-7;
       majgrp5=COMPRESS("&prefix.5-&var2.-&var3.-&var4.&q..htm");     /* added purchased care
MER 11/11/09 */
       majgrp6=COMPRESS("&prefix.6-&var2.-&var3.-&var4.&q..htm");
       majgrp7=COMPRESS("&prefix.7-&var2.-&var3.-&var4.&q..htm");
       majgrp8=COMPRESS("&prefix.8-&var2.-&var3.-&var4.&q..htm");     /**RSG - ADD IN MAJGRP
8**/
       majgrp9=COMPRESS("&prefix.9-&var2.-&var3.-&var4.&q..htm");


        /*** Certain major groups are not large enough to show ***/
        /*** catchment level detail. So if we are in html file ***/
        /*** which has this detail then don't link to a html   ***/
        /*** file which doesn't exist                          ***/

       %if &var1.^=0 %then %do;
         %if &var1.^=3 and &var1.^=4 and &var1.^=5 and &var1.^=7 and &var1.^=8 and &var2.^=0
%then %do;

            PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
            PUT "<a  href=""" MAJGRP2  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Enrollees with Military PCM</font></a>&htmlsp.&htmlsp.";
            PUT "<a  href=""" MAJGRP6  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Active Duty</font></a>&htmlsp.&htmlsp.";
            PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

         %end;
         %else %do;

            PUT "<a href=""" MAJGRP1 +(-1) """ &target.><font face='&fontface.' size='2'>Prime
Enrollees</font></a>&htmlsp.&htmlsp.";
            PUT "<a  href=""" MAJGRP2  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Enrollees with Military PCM</font></a>&htmlsp.&htmlsp.";
            PUT "<a  href=""" MAJGRP3  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Enrollees with Civilian PCM</font></a>&htmlsp.&htmlsp.";  /*RSG 02/2005 added Civilian
PCM*/
            PUT "<a  href=""" MAJGRP4  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Standard/Extra Users</font></a>&htmlsp.&htmlsp.";
            PUT "<a  href=""" MAJGRP5  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Purchased Care Users</font></a>&htmlsp.&htmlsp.";
            PUT "<br>";
            PUT "<a href=""" MAJGRP6 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty</font></a>&htmlsp.&htmlsp.";
            PUT "<a href=""" MAJGRP7 +(-1) """ &target.><font face='&fontface.' size='2'>Active
Duty Dependents</font></a>&htmlsp.&htmlsp.";
            PUT "<a  href=""" MAJGRP8  +(-1)  """  &target.><font  face='&fontface.'
size='2'>Retirees and Dependents</font></a>&htmlsp.&htmlsp.";
            PUT "<a href=""" MAJGRP9 +(-1) """ &target.><font face='&fontface.' size='2'>All
Users</font></a>";

          %end;
        %end;

       /*** link to printer friendly version moved C.Rankin 10/25/2001 ***/

       /*** If creating frames need link to printer friendly version of file ***/
       %if &prefix=f %then %do;
```

```
            HREFP=COMPRESS("p&var1.-&var2.-&var3.-&var4.&q..htm");
            PUT "       <BR><font face='Arial,Helvetica,Swiss,Geneva' size='1'><a href='" HREFP "'
&target.><img src='&imgdir.\printer.gif' alt='Printer Friendly Page' border=0>Printer Friendly
Page</a></font>
        %end;


    RUN;


    /*** Close HTML page ***/
    DATA _NULL_;
      FILE "&FILEOUT1." MOD ;

      PUT "</center></td></tr></table>";
      PUT "</body></html>";

    RUN;



    /*----------------------------*/
    /* 2000/12: begin xls color code */
    /*----------------------------*/
    %if &outxls.=1 %then %do;
      FILENAME CMDS DDE 'excel|system';

      /* Align 2 titles */
      DATA _NULL_;
        FILE CMDS;
        %if &var3 = 3 or &var3 = 6 %then %do;
            CELL=COMPRESS("[SELECT(""R1C1:R1C"||4||""")]"); PUT CELL;
            PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns
**/
            CELL=COMPRESS("[SELECT(""R2C1:R2C"||4||""")]"); PUT CELL;
            PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns
**/
        %end;
        %else %do;
            CELL=COMPRESS("[SELECT(""R1C1:R1C"||&columns.||""")]"); PUT CELL;
            PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns
**/
            CELL=COMPRESS("[SELECT(""R2C1:R2C"||&columns.||""")]"); PUT CELL;
            PUT '[ALIGNMENT(3, False, 3,0, False,,,True)]';  /** Merges titles across columns
**/
        %end;

      RUN;

      DATA _NULL_;
        FILE CMDS;
        SET HTML4(DROP=ROW) END=EOF;

        RETAIN ROW COLUMN;


        /*** Need to initialize row and column pointers ***/
        IF _N_=1 THEN DO;
          ROW=6;
          COLUMN=1;
        END;


        COLUMN=COLUMN+1;
        IF COLUMN>&columns. THEN DO;
            ROW=ROW+1;
            COLUMN=2;
        END;


        CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
        PUT CELL;
```

```
        /** Before color cell center data **/
        PUT '[ALIGNMENT(3, False, 3,0, False)]';


        IF    REGION   IN("Benchmark")    OR    MAJGRP    IN("Benchmark")    THEN    PUT
'[FORMAT.FONT("Arial",10,True,False,False,False,9)]';  /*** BOLD & DARK RED ***/
        ELSE IF SCORE NOT IN(.,.A) THEN DO;
          IF   SIG=1    THEN   PUT   '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';
/*** BOLD & GREEN ***/
          ELSE   IF   SIG=-1   THEN   PUT   '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';
/*** RED ***/
          ELSE PUT '[FORMAT.FONT("Arial",10,False,False,False,False,5)]';    /*** BLUE ***/
        END;


        /*** If last record then output footer ***/
        IF EOF THEN DO;
           ROW=ROW+3; COLUMN=1;
           CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
           PUT CELL;
           PUT '[FORMAT.FONT("Arial",10,True,False,False,False,10)]';                /*** BOLD &
GREEN ***/
           ROW=ROW+1;
           CELL=COMPRESS("[SELECT(""R"||ROW||"C"||COLUMN||":R"||ROW||"C"||COLUMN||""")]");
           PUT CELL;
           PUT '[FORMAT.FONT("Arial",10,False,True,False,False,3)]';    /*** RED ***/
        END;
      RUN;
      FILENAME CMDS DDE 'excel|system';
      DATA _NULL_;
        FILE CMDS;
        PUT '[SAVE()]';
        PUT '[CLOSE()]';
      RUN;
    %end;
    /*----------------------------*/
    /* 2000/12: end xls color code   */
    /*----------------------------*/



    %MEND MKHTML;
    /*ÛÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔ*/
    /*ÛÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔÔ*/

    /*
    %LET PREFIX=p;
    %LET OUTXLS=0;
    %MKHTML(3,0,1,2,1);
    %MKHTML(1,0,12,2,1);
    %MKHTML(1,0,12,1,0);
    %MKHTML(1,0,12,2,2);
    %MKHTML(1,0,12,2,3);
    %MKHTML(1,0,12,2,0);
    */

    *********************************************;
    **** Create macros to all MKHTML macro  ****;
    *********************************************;

    /*** Create 9 HTML pages (9 Majgrps / All Regions / All Benefits)***/
    %MACRO DOALL1();
              %MKHTML(1,0,0,0,0);
              %MKHTML(2,0,0,0,0);
              %MKHTML(3,0,0,0,0);
              %MKHTML(4,0,0,0,0);
              %MKHTML(5,0,0,0,0);
              %MKHTML(6,0,0,0,0);
              %MKHTML(7,0,0,0,0);
              %MKHTML(8,0,0,0,0);
              %MKHTML(9,0,0,0,0);
    %MEND DOALL1;
```

```
     /*** Create 368 HTML pages (8 Majgrps / All Regions / 12 Benefits)***/
     %MACRO DOALL2();
        %DO J=1 %TO 9;
           %DO K=1 %TO 11;
              %MKHTML(&J.,0,&K.,1,0);
              %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                 %IF &K. = 3 OR &K. = 10 %THEN %DO L= 0 %TO 4;
                    %MKHTML(&J.,0,&K.,2,&L.);
                 %END;
                 %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO 2;
***RSG 02/2005 - ADDED 12TH BENEFIT;
                    %MKHTML(&J.,0,&K.,2,&L.);
                 %END;
                 %ELSE %IF &K. = 11 %THEN %DO L = 0 %TO 3;
                    %MKHTML(&J.,0,&K.,2,&L.);
                 %END;
              %END;
           %END;
        %END;
     %MEND DOALL2;


     /*** Need to populate new table for all majgrps ***/
     /*** Create 736 HTML pages (All Majgrps / 16 Regions / 12 Benefits) ***/
     %MACRO DOALL4(i=);
           %DO K = 1 %TO 11;
              /*** Call macro for 2nd page (except for ratings benefits) ***/
              %DO J = 7 %TO 10;
                 %MKHTML(&I.,&J.,&K.,1,0);
                 %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO
2; /*** MAB Added 2/11/2005 ***/
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                 %end;
              %END;
              %DO J = 12 %TO 15;
                 %MKHTML(&I.,&J.,&K.,1,0);
                 %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO
2; /*** MAB Added 2/11/2005 ***/
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                 %end;
              %END;
              %DO J = 17 %TO 20;
                 %MKHTML(&I.,&J.,&K.,1,0);
                 %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                    %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO
2; /*** MAB Added 2/11/2005 ***/
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                    %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                       %MKHTML(&I.,&J.,&K.,2,&L.);
                    %END;
                 %end;
              %END;
              %DO J = 22 %TO 24;
```

```
                    %MKHTML(&I.,&J.,&K.,1,0);
                    %if &k.^=6 AND &k.^=7 AND &k.^=8 AND &k.^=9 %then %do;
                        %IF &K. = 3 OR &K. = 10 %THEN %DO L = 0 %TO 4;
                            %MKHTML(&I.,&J.,&K.,2,&L.);
                        %END;
                        %ELSE %IF &K. = 1 OR &K. = 2 OR &K. = 4 OR &K. = 5 %THEN %DO L = 0 %TO
2; /*** MAB Added 2/11/2005 ***/
                            %MKHTML(&I.,&J.,&K.,2,&L.);
                        %END;
                        %ELSE %IF &K.=11 %THEN %DO L = 0 %TO 3;
                            %MKHTML(&I.,&J.,&K.,2,&L.);
                        %END;
                    %end;
                %END;

        %END;
    %MEND DOALL4;



     /*** Create 16 HTML pages (8 Majgrps / 16 Regions / All Benefits) ***/
    %MACRO DOALL5(I=);
        %DO J=7 %TO 10;
            %MKHTML(&i.,&j.,0,0,0);
        %END;
        %DO J=12 %TO 15;
            %MKHTML(&i.,&j.,0,0,0);
        %END;
        %DO J=17 %TO 20;
            %MKHTML(&i.,&j.,0,0,0);
        %END;
        %DO J=22 %TO 24;
            %MKHTML(&i.,&j.,0,0,0);
        %END;

    %MEND DOALL5;




    /*** Run macro to create Frame HTML files ***/


    %LET PREFIX=f;
    %LET OUTXLS=0;
    %DOALL1;
    %DOALL2;
    %DOALL4(I=1);
    %DOALL4(I=2);
    %DOALL4(I=6);
    %DOALL4(I=9);
    %DOALL5(I=1);
    %DOALL5(I=2);
    %DOALL5(I=6);
    %DOALL5(I=9);


    /*** Run macro to create Printer Friendly HTML files (non-frames) ***/

    %LET PREFIX=p;
    %LET OUTXLS=0;
    %DOALL1;
    %DOALL2;
    %DOALL4(I=1);
    %DOALL4(I=2);
    %DOALL4(I=6);
    %DOALL4(I=9);
    %DOALL5(I=1);
    %DOALL5(I=2);
    %DOALL5(I=6);
    %DOALL5(I=9);


    /*** Run macro to create Excel files ONLY ***/
```

```
%LET PREFIX=p;
%LET OUTXLS=1;
%DOALL1;
%DOALL2;
%DOALL4(I=1);
%DOALL4(I=2);
%DOALL4(I=6);
%DOALL4(I=9);
%DOALL5(I=1);
%DOALL5(I=2);
%DOALL5(I=6);
%DOALL5(I=9);


%PUT "&number_html_files. HTML files created.";
```

APPENDIX H

**SAS CODE FOR 2008 TRICARE CONSUMER WATCH -
QUARTERS I-IV AND COMBINED ANNUAL**

```
*******************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-C.INC
* PURPOSE: To pull from Beneficiary Reports the numbers that go into the data
*          sheet in Excel to produce graphs
*          Catchment level only
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED  03/15/2005 LUCY LU
*          --REMOVE LIBNAME FORM THE PROGRAM
*          --SUBSTITUDE ACTUAL YEAR VALUES BY MACRO YEAR VARIABLES
*          --ADD SMOKING CESSATION RATE ON PREVENTIVE CARE TABLE
* UPDATED: 01/31/2006 LUCY LU FOR 2005 ANNUAL CATCHMENT
*          --CHANGE 'CHOLESTEROL TESTING' TO 'PERCENT OF NORMAL WEIGHT'
* UPDATED: 04/07/2006 LUCY LU: ADD THE CODE TO COMPARE THE ANNUAL COMSUMER WATCH
*          WITH REPORT CARDS IN SCORESAND SIGNIFICANCE.
* MODIFIED 11/24/09 BY LUCY LU
*          1.START THIS YEAR, THE DATA DOES NOT INCLUDE THE VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*             RELATED CODE.
*          2.CHANGE IN CLCULATION OF VARIABLE SCORE
*
* INPUT  : ..\..\..\&YEAR.\PROGRAMS\LOADWEB\TREND_A.SD2
* OUTPUT : INTO EXCEL SPREADSHEET
*******************************************************************************;

OPTIONS NOXWAIT NOFMTERR /*MPRINT*/;

TITLE "Consumer Watch &YEAR. - Catchment";

%MACRO RUNCW (AREA=,     /*AREA=Catchment area                              */
              NAME=,     /*NAME=Name of Excel file being created for catchment area  */
              FOLDER=    /*FOLDER=Regional folder                           */
             );

/* Change parameter for each catchment area */
%LET VAL = &AREA.;


x "COPY TEMPLATE.XLS &FOLDER.\&NAME";
DATA _NULL_;
   X=SLEEP(1);
RUN;


X "START &FOLDER.\&NAME";
DATA _NULL_;
   X=SLEEP(1);
RUN;

FILENAME CMDS DDE "EXCEL|SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[app.minimize()]';
RUN;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
PROC FREQ DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Health Care'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/NOPRINT OUT=FIG1_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ DATA=TREND_A;
```

```
      WHERE MAJGRP = 'Prime Enrollees'
        AND REGCAT = 'Benchmark'
        AND BENEFIT = 'Health Care'
        AND TIMEPD = "&YEAR.";
      TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/NOPRINT OUT=FIG1_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG1_SC FIG1_A(KEEP=SCORE TIMEPD);
      SET FIG1_SC;
      IF REGCAT='Benchmark' THEN OUTPUT FIG1_A;
        ELSE OUTPUT FIG1_SC;
RUN;
PROC SORT DATA=FIG1_SC;
      BY TIMEPD;
RUN;
PROC SORT DATA=FIG1_A;
      BY TIMEPD;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG1;
      SET FIG1_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;

/*
DATA FIG1_SC(DROP=ASCORE);
      MERGE FIG1_SC
            FIG1_A(RENAME=(SCORE=ASCORE));
      BY TIMEPD;
      SCORE=SCORE-ASCORE;
RUN;
*/
DATA FIG1;
      SET FIG1_BE FIG1_SC;
      RETAIN BSCORE;
      IF REGCAT = 'Benchmark' THEN DO;
         ROW = 1;
         BSCORE=SCORE;
      END;
      ELSE IF TIMEPD = "&YEARP2." THEN DO;
         ROW = 2;
 *       SCORE=BSCORE+SCORE;
      END;
      ELSE IF TIMEPD = "&YEARP1." THEN DO;
         ROW = 3;
  *      SCORE=BSCORE+SCORE;
      END;
      ELSE IF TIMEPD = "&YEAR." THEN DO;
         ROW =4 ;
  *     SCORE=BSCORE+SCORE;
      END;

      COL2 = SCORE / 100;
      COL3 = SIG;
RUN;

PROC SORT;
      BY ROW;
RUN;
*TITLE2 'FIGURE 1';
*PROC PRINT;
RUN;

********************************************************************************
* DDE LINK (EXCEL file has to be open )
********************************************************************************;
FILENAME CMDS DDE "EXCEL|SYSTEM";

FILENAME TBL DDE "EXCEL|RATINGS!R18C2:R21C3";

DATA _NULL_;
      SET FIG1;
      FILE TBL NOTAB LRECL=200;
      PUT COL2 '09'X COL3;
```

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```
RUN;

********************************************************************************
* FIGURE 2: Health Plan Rating
********************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Health Plan'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG2_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Health Plan'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG2_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG2_SC FIG2_A(KEEP=SCORE TIMEPD);
   SET FIG2_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG2_A;
     ELSE OUTPUT FIG2_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG2;
   SET FIG2_SC;

KEEP MAJGRP REGCAT  BENEFIT TIMEPD SCORE SIG;
RUN;

PROC SORT DATA=FIG2_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG2_A;
   BY TIMEPD;
RUN;
/*
DATA FIG2_SC(DROP=ASCORE);
   MERGE FIG2_SC
         FIG2_A(RENAME=(SCORE=ASCORE));
   BY TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;
*/
DATA FIG2;
   SET FIG2_BE FIG2_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;

PROC SORT;
   BY ROW;
RUN;
```

```
*TITLE2 'FIGURE 2';
*PROC PRINT;
RUN;

*********************************************************************************
* DDE LINK (EXCEL file has to be open )
*********************************************************************************;

FILENAME TBL DDE "EXCEL|RATINGS!R18C6:R21C7";

DATA _NULL_;
   SET FIG2;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;

*********************************************************************************
* FIGURE 3: Personal Doctor
*********************************************************************************;
TITLE2 'Figure 3: Personal Doctor Rating';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Personal Doctor'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG3_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Personal Doctor'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG3_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG3_SC FIG3_A(KEEP=SCORE TIMEPD);
   SET FIG3_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG3_A;
      ELSE OUTPUT FIG3_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG3;
   SET FIG3_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG3_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG3_A;
   BY TIMEPD;
RUN;
/*
DATA FIG3_SC(DROP=ASCORE);
   MERGE FIG3_SC
         FIG3_A(RENAME=(SCORE=ASCORE));
   BY TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;
*/

DATA FIG3;
   SET FIG3_BE FIG3_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
   END;
```

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```
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;

PROC SORT;
   BY ROW;
RUN;
*TITLE2 'FIGURE 3';
*PROC PRINT;
RUN;

******************************************************************************
* DDE LINK (EXCEL file has to be open )
******************************************************************************;

FILENAME TBL DDE "EXCEL|RATINGS!R18C10:R21C11";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;


******************************************************************************
* FIGURE 4: Specialist Rating
******************************************************************************;
TITLE2 'Figure 4: Specialist Rating';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT = 'Specialty Care'
     AND TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG4_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT = 'Specialty Care'
     AND TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG4_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG4_SC FIG4_A(KEEP=SCORE TIMEPD);
   SET FIG4_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG4_A;
      ELSE OUTPUT FIG4_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG4;
   SET FIG4_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;

PROC SORT DATA=FIG4_SC;
   BY TIMEPD;
RUN;
PROC SORT DATA=FIG4_A;
   BY TIMEPD;
RUN;
/*
DATA FIG4_SC(DROP=ASCORE);
   MERGE FIG4_SC
         FIG4_A(RENAME=(SCORE=ASCORE));
```

```
   BY TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;
*/
DATA FIG4;
   SET FIG4_BE FIG4_SC;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
   END;

   COL2 = SCORE / 100;
   COL3 = SIG;
RUN;

PROC SORT;
   BY ROW;
RUN;
*TITLE2 'FIGURE 4';
*PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
******************************************************************************;

FILENAME TBL DDE "EXCEL|RATINGS!R18C14:R21C15";

DATA _NULL_;
   SET FIG4;
   FILE TBL NOTAB LRECL=200;
   PUT COL2 '09'X COL3;
RUN;


*******************************************************************************
* FIGURE 5: Access Composites
******************************************************************************;
TITLE2 'Figure 5: Access Composites';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT IN ('Getting Needed Care','Getting Care Quickly')
     AND BENTYPE='Composite' & TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG5_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('Getting Needed Care','Getting Care Quickly')
     AND BENTYPE='Composite' & TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG5_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG5_SC FIG5_A(KEEP=SCORE TIMEPD BENEFIT);
   SET FIG5_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG5_A;
      ELSE OUTPUT FIG5_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG5;
```

```
   SET FIG5_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG5_SC;
   BY BENEFIT TIMEPD;
RUN;
PROC SORT DATA=FIG5_A;
   BY BENEFIT TIMEPD;
RUN;
/*DATA FIG5_SC(DROP=ASCORE);
   MERGE FIG5_SC
         FIG5_A(RENAME=(SCORE=ASCORE));
   BY BENEFIT TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;*/
PROC SORT DATA=FIG5_BE;
   BY BENEFIT;
RUN;

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE  RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET FIG5_BE FIG5_SC ; BY BENEFIT;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
 *     SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
  *    SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;

   IF (BENEFIT = 'Getting Needed Care' AND REGCAT NE 'Benchmark') THEN OUTPUT COL2 COL6;
   IF (BENEFIT = 'Getting Needed Care' AND REGCAT = 'Benchmark') THEN OUTPUT COL3;
   IF (BENEFIT = 'Getting Care Quickly' AND REGCAT NE 'Benchmark') THEN OUTPUT COL4 COL7;
   IF (BENEFIT = 'Getting Care Quickly' AND REGCAT = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 04/07/2006*/

DATA FIG5A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG5B;
```

```
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG5AB;
   SET FIG5A FIG5B;
  BY ROW;
RUN;




DATA FIG5;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;
*TITLE2 'ACCESS COMPOSITES';
*PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
******************************************************************************;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C2:R21C2";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C3:R18C3";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C4:R21C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C5:R18C5";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C2:R26C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   PUT COL6 '09'X '09'X COL7;
RUN;

*******************************************************************************
* FIGURE 6: Office Composites
******************************************************************************;
TITLE2 'Figure 6: Office Composites';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT IN ('How Well Doctors Communicate')
     AND BENTYPE="Composite" & TIMEPD
    IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG6_SC(DROP=COUNT PERCENT);
```

```
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('How Well Doctors Communicate')
     AND BENTYPE="Composite" & TIMEPD = "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG6_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG6_SC FIG6_A(KEEP=SCORE TIMEPD BENEFIT);
   SET FIG6_SC;
   IF REGCAT='Benchmark' THEN OUTPUT FIG6_A;
       ELSE OUTPUT FIG6_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG6;
   SET FIG6_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG6_SC;
   BY BENEFIT TIMEPD;
RUN;
PROC SORT DATA=FIG6_A;
   BY BENEFIT TIMEPD;
RUN;
/*DATA FIG6_SC(DROP=ASCORE);
   MERGE FIG6_SC
         FIG6_A(RENAME=(SCORE=ASCORE));
   BY BENEFIT TIMEPD;
   SCORE=SCORE-ASCORE;
RUN;*/
PROC SORT DATA=FIG6_BE;
   BY BENEFIT;
RUN;

DATA COL4(DROP=SCORE RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
   SET FIG6_BE FIG6_SC ; BY BENEFIT;
   RETAIN BSCORE;
   IF REGCAT = 'Benchmark' THEN DO;
      ROW = 1;
      BSCORE=SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP2." THEN DO;
      ROW = 2;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEARP1." THEN DO;
      ROW = 3;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;
   ELSE IF TIMEPD = "&YEAR." THEN DO;
      ROW = 4;
*      SCORE=BSCORE+SCORE;
      SCORE1=SCORE;
   END;

   IF (BENEFIT = 'How Well Doctors Communicate' AND REGCAT NE 'Benchmark') THEN OUTPUT COL4
COL7;
   IF (BENEFIT = 'How Well Doctors Communicate' AND REGCAT = 'Benchmark') THEN OUTPUT COL5;

RUN;


PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
```

```
PROC SORT DATA=COL7; BY ROW; RUN;

/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 04/07/2006*/


DATA FIG6B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG6AB;
   SET FIG6B;
  BY ROW;
RUN;


DATA FIG6;
   MERGE  COL4(KEEP=ROW COL4) COL5  COL7;
   BY ROW;
RUN;
*TITLE2 'OFFICE COMPOSITES';
*PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
******************************************************************************;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C8:R21C8";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C9:R18C9";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT COL5;
RUN;



FILENAME TBL DDE "EXCEL|COMPOSITES!R23C8:R26C8";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   PUT  COL7;
RUN;

*******************************************************************************
* FIGURE 7: Claims/Service Composites
******************************************************************************;
TITLE2 'Figure 7: Claims/Service Composites';
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT in ("&VAL","Benchmark")
     AND BENEFIT IN ('Customer Service','Claims Processing')
     AND BENTYPE ="Composite" & TIMEPD IN ("&YEARP2.", "&YEARP1.", "&YEAR.");
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE*SIG/ OUT=FIG7_SC(DROP=COUNT PERCENT);
RUN;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = 'Benchmark'
     AND BENEFIT IN ('Customer Service','Claims Processing')
     AND BENTYPE ="Composite" & TIMEPD= "&YEAR.";
   TABLES MAJGRP*REGCAT*BENEFIT*TIMEPD*SCORE/ OUT=FIG7_BE(DROP=COUNT PERCENT);
RUN;
DATA FIG7_SC FIG7_A(KEEP=SCORE TIMEPD BENEFIT);
   SET FIG7_SC;
```

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```
    IF REGCAT='Benchmark' THEN OUTPUT FIG7_A;
        ELSE OUTPUT FIG7_SC;
RUN;

 /*add the code here to preserve above dataset for later comparision, LLu 4/6/2006*/
DATA CFIG7;
    SET FIG7_SC;

KEEP MAJGRP REGCAT BENEFIT TIMEPD SCORE SIG;
RUN;


PROC SORT DATA=FIG7_SC;
    BY BENEFIT TIMEPD;
RUN;
PROC SORT DATA=FIG7_A;
    BY BENEFIT TIMEPD;
RUN;
/*DATA FIG7_SC(DROP=ASCORE);
    MERGE FIG7_SC
          FIG7_A(RENAME=(SCORE=ASCORE));
    BY BENEFIT TIMEPD;
    SCORE=SCORE-ASCORE;
RUN;*/
PROC SORT DATA=FIG7_BE;
    BY BENEFIT;
RUN;

DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
     COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
     COL4(DROP=SCORE  RENAME=(SCORE1=COL4))
     COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
     COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
     COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
    SET FIG7_BE FIG7_SC ; BY BENEFIT;
    RETAIN BSCORE;
    IF REGCAT = 'Benchmark' THEN DO;
       ROW = 1;
       BSCORE=SCORE;
       SCORE1=SCORE;
    END;
    ELSE IF TIMEPD = "&YEARP2." THEN DO;
       ROW = 2;
     *   SCORE=BSCORE+SCORE;
       SCORE1=SCORE;
    END;
    ELSE IF TIMEPD = "&YEARP1." THEN DO;
       ROW = 3;
     *   SCORE=BSCORE+SCORE;
       SCORE1=SCORE;
    END;
    ELSE IF TIMEPD = "&YEAR." THEN DO;
       ROW = 4;
     *   SCORE=BSCORE+SCORE;
       SCORE1=SCORE;
    END;

    IF (BENEFIT = 'Customer Service' AND REGCAT NE 'Benchmark') THEN OUTPUT COL2 COL6;
    IF (BENEFIT = 'Customer Service' AND REGCAT = 'Benchmark') THEN OUTPUT COL3;
    IF (BENEFIT = 'Claims Processing' AND REGCAT NE 'Benchmark') THEN OUTPUT COL4 COL7;
    IF (BENEFIT = 'Claims Processing' AND REGCAT = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;

/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 04/07/2006*/

DATA FIG7A;
```

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```
     MERGE COL2 COL6;
   BY ROW;
RUN;

DATA FIG7B;
   MERGE  COL4 COL7;
   BY ROW;
RUN;

DATA FIG7AB;
   SET FIG7A FIG7B;
   BY ROW;
RUN;


DATA FIG7;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;
*TITLE2 'CLAIMS/SERVICE COMPOSITES';
*PROC PRINT;
RUN;

*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C14:R21C14";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C15:R18C15";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C16:R21C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C17:R18C17";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C14:R26C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   PUT COL6 '09'X '09'X COL7;
RUN;

*******************************************************************************
* TABLE 1: Preventive Care
*******************************************************************************;
PROC FREQ NOPRINT DATA=TREND_A;
   WHERE MAJGRP = 'Prime Enrollees'
     AND REGCAT = "&VAL"
     AND TIMEPD = "&YEAR"
```

```
              AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
              AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                             'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
          TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/ OUT=TAB1_03(DROP=COUNT PERCENT);
          TABLES MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*N_OBS/ OUT=TAB2_03(DROP=COUNT PERCENT);
      RUN;
      PROC FREQ NOPRINT DATA=TREND_A;
          WHERE MAJGRP = 'Prime Enrollees'
            AND REGCAT = 'Benchmark'
            AND TIMEPD = "&YEAR"
            AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
            AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                           'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
          TABLES      MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*SIG/      OUT=TAB3_03(DROP=COUNT
PERCENT);
      RUN;
      PROC FREQ NOPRINT DATA=TREND_A;
           WHERE MAJGRP = 'Prime Enrollees'
             AND REGCAT = "&VAL"
             AND TIMEPD = "&YEARP1"
             AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
             AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                            'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
          TABLES                        MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*N_OBS*N_WGT*SIG/
OUT=TAB1_02(DROP=COUNT PERCENT);
      RUN;
      PROC FREQ NOPRINT DATA=TREND_A;
          WHERE MAJGRP = 'Prime Enrollees'
            AND REGCAT = "&VAL"
            AND TIMEPD = "&YEARP2"
            AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
            AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                           'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit');
          TABLES                        MAJGRP*REGCAT*BENEFIT*BENTYPE*SEMEAN*SCORE*N_OBS*N_WGT*SIG/
OUT=TAB1_01(DROP=COUNT PERCENT);
      RUN;

      DATA TAB303;
          SET TAB3_03;
          IF REGCAT = 'Benchmark' THEN DO;
             ROW=5;
             IF BENTYPE='Mammography' THEN COL2=SCORE;
                ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
                ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
                ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
                ELSE IF BENTYPE='Percent Not Obese' THEN COL6=SCORE;
                ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=SCORE;
                ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=SCORE;
          END;
      PROC SORT;
          BY ROW;
      RUN;
      DATA TAB203;
          SET TAB2_03;
          ROW=4;
          IF MAJGRP='Prime Enrollees';
          IF BENTYPE='Mammography' THEN COL2=N_OBS;
             ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
             ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
             ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
             ELSE IF BENTYPE='Percent Not Obese' THEN COL6=N_OBS;
             ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=N_OBS;
             ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=N_OBS;
      PROC SORT;
          BY ROW;
      RUN;
      DATA TAB103;
          SET TAB1_03;
          ROW=3;
          IF BENTYPE='Mammography' THEN DO;
             COL2=SCORE;
             COL9=SIG;
          END;
          ELSE IF BENTYPE='Pap Smear' THEN DO;
```

```
        COL3=SCORE;
        COL10=SIG;
    END;
    ELSE IF BENTYPE='Hypertension' THEN DO;
        COL4=SCORE;
        COL11=SIG;
    END;
    ELSE IF BENTYPE='Prenatal Care' THEN DO;
        COL5=SCORE;
        COL12=SIG;
    END;
    ELSE IF BENTYPE='Percent Not Obese' THEN DO;
        COL6=SCORE;
        COL13=SIG;
    END;
    ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
        COL7=SCORE;
        COL14=SIG;
    END;
    ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
        COL8=SCORE;
        COL15=SIG;
    END;

    PROC SORT;
    BY ROW;
RUN;

DATA TAB101;
    SET TAB1_01;
    ROW=1;
    IF BENTYPE='Mammography' THEN DO;
        IF (N_WGT<200 OR N_OBS<30) THEN COL2=.;
        ELSE DO;
            COL2=SCORE;
            COL9=SIG;
        END;
    END;
    ELSE IF BENTYPE='Pap Smear' THEN DO;
        IF (N_WGT<200 OR N_OBS<30) THEN COL3=.;
        ELSE DO;
            COL3=SCORE;
            COL10=SIG;
        END;
    END;
    ELSE IF BENTYPE='Hypertension' THEN DO;
        IF (N_WGT<200 OR N_OBS<30) THEN COL4=.;
        ELSE DO;
            COL4=SCORE;
            COL11=SIG;
        END;
    END;
    ELSE IF BENTYPE='Prenatal Care' THEN DO;
        IF (N_WGT<200 OR N_OBS<30) THEN COL5=.;
        ELSE DO;
            COL5=SCORE;
            COL12=SIG;
        END;
    END;
    ELSE IF BENTYPE='Percent Not Obese' THEN DO;
        IF (N_WGT<200 OR N_OBS<30) THEN COL6=.;
        ELSE DO;
            COL6=SCORE;
            COL13=SIG;
        END;
    END;
    ELSE IF BENTYPE='Non-Smoking Rate' THEN DO;
        IF (N_WGT<200 OR N_OBS<30) THEN COL7=.;
        ELSE DO;
            COL7=SCORE;
            COL14=SIG;
        END;
    END;
    ELSE IF BENTYPE='Counselled To Quit' THEN DO;
```

```
            IF (N_WGT<200 OR N_OBS<30) THEN COL8=.;
            ELSE DO;
               COL8=SCORE;
               COL15=SIG;
            END;
         END;

PROC SORT;
   BY ROW;
RUN;
DATA TAB102;
   SET TAB1_02;
   ROW=2;
   IF BENTYPE='Mammography' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL2=.;
      ELSE DO;
         COL2=SCORE;
         COL9=SIG;
      END;
   END;
   ELSE IF BENTYPE='Pap Smear' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL3=.;
      ELSE DO;
         COL3=SCORE;
         COL10=SIG;
      END;
   END;
   ELSE IF BENTYPE='Hypertension' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL4=.;
      ELSE DO;
         COL4=SCORE;
         COL11=SIG;
      END;
   END;
   ELSE IF BENTYPE='Prenatal Care' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL5=.;
      ELSE DO;
         COL5=SCORE;
         COL12=SIG;
      END;
   END;
   ELSE IF BENTYPE='Percent Not Obese' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL6=.;
      ELSE DO;
         COL6=SCORE;
         COL13=SIG;
      END;
   END;
   ELSE IF BENTYPE='Non-Smoking Rate' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL7=.;
      ELSE DO;
         COL7=SCORE;
         COL14=SIG;
      END;
   END;
   ELSE IF BENTYPE='Counselled To Quit' THEN DO;
      IF (N_WGT<200 OR N_OBS<30) THEN COL8=.;
      ELSE DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   END;
PROC SORT;
   BY ROW;
RUN;

DATA TAB1;
   MERGE TAB101 TAB102 TAB103 TAB203 TAB303;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
```

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```
         COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
         COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
         COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
         COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL10 COL11 COL12 COL13 COL14 COL15)
         COL10(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL11 COL12 COL13 COL14 COL15)
         COL11(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL12 COL13 COL14 COL15)
         COL12(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL13 COL14 COL15)
         COL13(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL14 COL15)
         COL14(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL15)
         COL15(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14)
    ;
    SET TAB1;

    IF COL2 NE . THEN OUTPUT COL2;
    IF COL3 NE . THEN OUTPUT COL3;
    IF COL4 NE . THEN OUTPUT COL4;
    IF COL5 NE . THEN OUTPUT COL5;
    IF COL6 NE . THEN OUTPUT COL6;
    IF COL7 NE . THEN OUTPUT COL7;
    IF COL8 NE . THEN OUTPUT COL8;
    IF COL9 NE . THEN OUTPUT COL9;
    IF COL10 NE . THEN OUTPUT COL10;
    IF COL11 NE . THEN OUTPUT COL11;
    IF COL12 NE . THEN OUTPUT COL12;
    IF COL13 NE . THEN OUTPUT COL13;
    IF COL14 NE . THEN OUTPUT COL14;
    IF COL15 NE . THEN OUTPUT COL15;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;
PROC SORT DATA=COL14; BY ROW; RUN;
PROC SORT DATA=COL15; BY ROW; RUN;

DATA ALLROWS;
    LENGTH ROW 8.;
    DO ROW = 1 TO 5;
        OUTPUT;
    END;
RUN;

PROC SORT DATA=ALLROWS; BY ROW; RUN;

DATA TABLE1;
    MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11
          COL12 COL13 COL14 COL15 ALLROWS;
    BY ROW;
RUN;


********************************************************************************
* DDE LINK (EXCEL file has to be open )
********************************************************************************;
FILENAME TBL DDE "EXCEL|TABLES!R4C9:R8C22";

DATA _NULL_;
    SET TABLE1;
    FILE TBL NOTAB LRECL=200;
    IF ROW=5 THEN DO;
    PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X '-' '09'X COL9
'09'X COL10
        '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
    END;
    ELSE DO;
```

```
        PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9
'09'X COL10
            '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;

      END;
    RUN;

    /*Run Excel macro signif,  May 9 2006, LLU*/

    options noxsync;
    *-- Specify XL filename ;

    *%let excelf = &NAME..XLS ;

    *-- Specify XL macro name ;
    %let macron = signif ;


    FILENAME CMDS DDE "EXCEL|SYSTEM";


    DATA _NULL_;
      FILE CMDS;
      DDECommand = '[Run("' || "&macron" || '",0)]' ;
      put DDEcommand ;

    RUN;


    *FILENAME CMDS DDE "EXCEL|SYSTEM";
    DATA _NULL_;
       FILE CMDS;
       PUT '[SAVE]';
       PUT '[CLOSE]';
    RUN;




    **********************************************************************************
         COMPARE SCORES AND SIG B/T CONSUMER WATCH AND REPORT CARDS.
         SET 0.015 DIFFERENCE AS THRESHOLD.
         LUCY LU 04/04/2006
    **********************************************************************************;


    PROC SORT DATA=FIG1(DROP=SCORE);              *FROM CONSUMER WATCH;
    BY BENEFIT TIMEPD REGCAT;

    PROC SORT DATA=FIG2(DROP=SCORE);
    BY BENEFIT TIMEPD REGCAT;

    PROC SORT DATA=FIG3(DROP=SCORE);
    BY BENEFIT TIMEPD REGCAT;

    PROC SORT DATA=FIG4(DROP=SCORE);
    BY BENEFIT TIMEPD REGCAT;

    PROC SORT DATA=FIG5AB OUT=FIG5;
    BY BENEFIT TIMEPD REGCAT;

    PROC SORT DATA=FIG6AB OUT=FIG6;
    BY BENEFIT TIMEPD REGCAT;

    PROC SORT DATA=FIG7AB OUT=FIG7;
    BY BENEFIT TIMEPD REGCAT;
    RUN;


    %MACRO COMPARE(I=, TITL=);


    PROC SORT DATA=CFIG&I;                     *FROM REPROT CARDS;
    BY BENEFIT TIMEPD REGCAT;
```

```
RUN;

DATA COMBFIG&I;
   MERGE CFIG&I.(IN=F1) FIG&I(IN=F2);
BY BENEFIT TIMEPD REGCAT;


IF F1 AND F2;

FIG = &I;

IF FIG <=4 THEN DO;
   SCORE2=COL2*100;
   SIG2=COL3;
END;

ELSE IF FIG >4 THEN DO;
   IF COL2 >= 0 THEN SCORE2=COL2;
   ELSE IF COL4 >0 THEN SCORE2=COL4;

   IF COL6 >= .Z THEN SIG2=COL6;
   ELSE IF COL7>=.Z THEN SIG2=COL7;
END;


   SCOREDIF=SCORE2-SCORE;
   SIGDIF=SIG2-SIG;


IF ABS(SCOREDIF)>.015 OR SIGDIF>0 THEN FLAG=1;
ELSE FLAG=0;

KEEP BENEFIT TIMEPD REGCAT SCORE SIG SCORE2 SIG2 SCOREDIF SIGDIF FLAG;

LABEL
FLAG="DIFF IN SCORES >0.015 OR/AND DIFF IN SIG >0"
SCORE="SCORES FROM CONUS"
SCORE2="SCORES FROM CONSUMER WATCH"
SIG="SIG FROM CONUS"
SIG2="SIG FROM CONSUMER WATCH"
;


TITLE  "   ";
TITLE2 "**********************************************************";
TITLE3 "&YEAR. CATCHMENT CONSUMER WATCH, &AREA ";

PROC PRINT L NOOBS;
TITLE4 "Compare &TITL.";
RUN;


%MEND COMPARE;


%COMPARE(I=1, TITL=Health Care Rating);
%COMPARE(I=2, TITL=Health Plan Rating);
%COMPARE(I=3, TITL=Personal Provider Rating);
%COMPARE(I=4, TITL=Specialist Rating);

%COMPARE(I=5, TITL=Access composites);

%COMPARE(I=6, TITL=Office composites);
%COMPARE(I=7, TITL=Claims/Service composites);


%MEND RUNCW;
```

```
*********************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-Cconus.SAS
* PURPOSE: Run Catchment Consumer Watch
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED: 03/17/05 BY LUCY LU.
* UPDATED: 11/21/06 BY LUCY LU.
* UPDATED: 11/16/07 BY LUCY LU.
* MODIFIED:10/29/09 BY LUCY LU, TO AUTOMATE THE ANNUAL CONSUMER WATCH REPORT.
*********************************************************************************;
OPTIONS PS=63 LS=86 NOCENTER /*MPRINT*/ NOFMTERR SPOOL ;
LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadwebv4';
*LIBNAME INT "L:\2008\Programs\LoadWeb";  *TEST RUN;


/*********************/
/* TIME PERIOD MACROS */
/*********************/

%LET YEAR   = 2009;
%LET YEARP1 = 2008;
%LET YEARP2 = 2007;
%LET YOURSAY= USA MHS;                          *DOMAIN;


%LET WDPATH=L:\&YEAR.\Programs\ConsumerWatch;
%LET RATEPATH=..\..\Data\Response_Rate;
*%LET RATEPATH =L:\2008\data\Response_Rate;          *TEMP ONLY;


%INCLUDE "CONSUMERWATCH-CMACRO.INC";
%INCLUDE "CONSUMERWATCH-MACRO-WORD.INC";

/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/


DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT));

REGCAT=COMPRESS(XREGCAT,"'");
DROP XREGCAT;

RUN;


/*** MACRO TO RUN CATCHMENT LEVEL REPORTS BY REGION ****/

%MACRO RUNBYREG (REG=,    /*Region as it appears in TREND_A */
                 FOLDER=  /*Regional folder name           */
                );

   PROC FREQ DATA=TREND_A;
      TABLES REGION*REGCAT / LIST MISSING OUT=TEMP;
      WHERE (REGION=&REG AND REGCAT NE &REG) OR REGION='USA MHS';
   RUN;

   DATA TEMP;
      SET TEMP;

      /* DO NOT PRODUCE CONSUMER WATCH REPORTS FOR OUT OF CATCHMENT AREAS */

      IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;
      *IF REGCAT IN ('AIR FORCE','ARMY','NAVY','NORTH','OTHER',
                    'OVERSEAS','SOUTH','WEST','BENCHMARK')

      THEN DELETE;
```

```
      RUN;

   DATA _NULL_;
      SET TEMP END=FINISHED;

      LENGTH CMPRS CMPRS2 $39;
      LENGTH NUM $4;

      CMPRS=COMPRESS(REGCAT)||".xls";
      CMPRS2=COMPRESS(REGCAT);
      NUM=COMPRESS(PUT(_N_,4.));

      CALL SYMPUT("REGCAT"||NUM,REGCAT);
      CALL SYMPUT("CMPRS"||NUM,CMPRS);
      CALL SYMPUT("CMPRS2"||NUM,CMPRS2);


      IF FINISHED THEN DO;
         CALL SYMPUT("N",_N_);
      END;
   RUN;


   %MACRO PROCESS1;
      %DO I=1 %TO &N;
       %RUNCW(AREA=&&REGCAT&I,NAME=&&CMPRS&I,FOLDER=&FOLDER);

       %END;
   %MEND PROCESS1;

   %PROCESS1;

   *LLU 10/29/09 AUTOMATE THE WORD REPORT;
 %MACRO PROCESS2;
      %DO I=1 %TO &N;
          %RUNWD(AREA=&&REGCAT&I,NAME=&&CMPRS&I,NAME2=&&CMPRS2&I,FOLDER=&FOLDER);
      %END;
   %MEND PROCESS2;

   %PROCESS2;

%MEND RUNBYREG;


%RUNBYREG(REG="USA MHS",FOLDER=USAMHS);
```

```
********************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-CMACRO.SAS
* PURPOSE: Run Catchment Consumer Watch
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED: 03/17/05 BY LUCY LU.
* UPDATED: 02/01/06 BY LUCY LU.
* UPDATED: 11/22/06 BY LUCY LU.
* UPDATED: 11/16/07 BY LUCY LU.
*********************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 MPRINT symbolgen NOCENTER NOFMTERR SPOOL;
LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadwebv4';


/*********************/
/* TIME PERIOD MACROS */
/*********************/

%LET YEAR  = 2009;
%LET YEARP1 = 2008;
%LET YEARP2 = 2007;
*%LET YOURSAY= MTF;

*%LET WDPATH=L:\&YEAR.\Programs\ConsumerWatch;
*%LET RATEPATH=..\..\Data\Response_Rate;


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT));

REGCAT=COMPRESS(XREGCAT,"'");
DROP XREGCAT;

RUN;


%INCLUDE "CONSUMERWATCH-CMACRO.INC";

/*** MACRO TO RUN CATCHMENT LEVEL REPORTS BY REGION ****/

%MACRO RUNBYREG (REG=,    /*Region as it appears in TREND_A */
                 FOLDER=  /*Regional folder name           */
                 );

   PROC FREQ DATA=TREND_A;
      TABLES REGION*REGCAT / LIST MISSING OUT=TEMP;
      WHERE (REGION=&REG AND REGCAT NE &REG) OR REGION='CONUS MHS';
   RUN;

   DATA TEMP;
      SET TEMP;

      /* DO NOT PRODUCE CONSUMER WATCH REPORTS FOR OUT OF CATCHMENT AREAS */

      IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;

   RUN;

   DATA _NULL_;
      SET TEMP END=FINISHED;

      LENGTH CMPRS $39;
      LENGTH NUM $4;
```

```
            CMPRS=COMPRESS(REGCAT)||".xls";
            NUM=COMPRESS(PUT(_N_,4.));

            CALL SYMPUT("REGCAT"||NUM,REGCAT);
            CALL SYMPUT("CMPRS"||NUM,CMPRS);

            IF FINISHED THEN DO;
                CALL SYMPUT("N",_N_);
            END;
        RUN;

        %MACRO PROCESS;
            %DO I=1 %TO &N;
                %RUNCW(AREA=&&REGCAT&I,NAME=&&CMPRS&I,FOLDER=&FOLDER);

            %END;

        %MEND PROCESS;

        %PROCESS;

    %MEND RUNBYREG;

    %RUNBYREG(REG="North Air Force",FOLDER=North);
    %RUNBYREG(REG="North Army",FOLDER=North);
    %RUNBYREG(REG="North Navy",FOLDER=North);
    %RUNBYREG(REG="North Other",FOLDER=North);
```

```
*********************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-CMACRO.SAS
* PURPOSE: Run Catchment Consumer Watch
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED: 03/17/05 BY LUCY LU.
* UPDATED: 02/01/06 BY LUCY LU.
* UPDATED: 11/21/06 BY LUCY LU FOR 2006 CONSUMER WATCH.
* UPDATED: 11/16/07 BY LUCY LU FOR 2007 CONSUMER WATCH.
*
*********************************************************************************;
options mlogic PS=63 LS=200  NOCENTER NOFMTERR SPOOL;


/*********************/
/* TIME PERIOD MACROS */
/*********************/


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadwebv4';

/*********************/
/* TIME PERIOD MACROS */
/*********************/

%LET YEAR   = 2009;
%LET YEARP1 = 2008;
%LET YEARP2 = 2007;

/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT));

REGCAT=COMPRESS(XREGCAT,"'");
DROP XREGCAT;

RUN;



%INCLUDE "CONSUMERWATCH-CMACRO.INC";

/*** MACRO TO RUN CATCHMENT LEVEL REPORTS BY REGION ****/

%MACRO RUNBYREG (REG=,    /*Region as it appears in TREND_A */
                 FOLDER=  /*Regional folder name            */
                );

   PROC FREQ DATA=TREND_A;
      TABLES REGION*REGCAT / LIST MISSING OUT=TEMP;
      WHERE (REGION=&REG AND REGCAT NE &REG) OR REGION='CONUS MHS';
   RUN;

   DATA TEMP;
      SET TEMP;

      /* DO NOT PRODUCE CONSUMER WATCH REPORTS FOR OUT OF CATCHMENT AREAS */

      IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;

   RUN;

   DATA _NULL_;
      SET TEMP END=FINISHED;

      LENGTH CMPRS $39;
```

```
      LENGTH NUM $4;

      CMPRS=COMPRESS(REGCAT)||".xls";
      NUM=COMPRESS(PUT(_N_,4.));

      CALL SYMPUT("REGCAT"||NUM,REGCAT);
      CALL SYMPUT("CMPRS"||NUM,CMPRS);


      IF FINISHED THEN DO;
          CALL SYMPUT("N",_N_);
      END;
   RUN;

   %MACRO PROCESS;
      %DO I=1 %TO &N;
          %RUNCW(AREA=&&REGCAT&I,NAME=&&CMPRS&I,FOLDER=&FOLDER);
      %END;
   %MEND PROCESS;

   %PROCESS;

%MEND RUNBYREG;

%RUNBYREG(REG="Overseas Pacific",FOLDER=Overseas);
%RUNBYREG(REG="Overseas Europe",FOLDER=Overseas);
*%RUNBYREG(REG="Overseas Latin America",FOLDER=Overseas);  *no this reg in 2009
```

```
******************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-CMACRO.SAS
* PURPOSE: Run Catchment Consumer Watch
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED: 03/17/05 BY LUCY LU.
* UPDATED: 02/01/05 BY LUCY LU.
* UPDATED: 11/21/06 BY LUCY LU FOR 2006 CONSUMER WATCH.
* UPDATED: 11/16/07 BY LUCY LU FOR 2007 CONSUMER WATCH.
*
******************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER NOFMTERR SPOOL;


/*********************/
/* TIME PERIOD MACROS */
/*********************/
%LET YEAR  = 2009;
%LET YEARP1 = 2008;
%LET YEARP2 = 2007;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadwebv4';


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT));

REGCAT=COMPRESS(XREGCAT,"'");
DROP XREGCAT;

RUN;


%INCLUDE "CONSUMERWATCH-CMACRO.INC";

/*** MACRO TO RUN CATCHMENT LEVEL REPORTS BY REGION ****/

%MACRO RUNBYREG (REG=,    /*Region as it appears in TREND_A */
                 FOLDER=  /*Regional folder name           */
                );

   PROC FREQ DATA=TREND_A;
      TABLES REGION*REGCAT / LIST MISSING OUT=TEMP;
      WHERE (REGION=&REG AND REGCAT NE &REG) OR REGION='CONUS MHS';
   RUN;

   DATA TEMP;
      SET TEMP;

      /* DO NOT PRODUCE CONSUMER WATCH REPORTS FOR OUT OF CATCHMENT AREAS */

      IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;
      *IF REGCAT IN ('AIR FORCE','ARMY','NAVY','NORTH','OTHER',
                  'OVERSEAS','SOUTH','WEST','BENCHMARK')

      THEN DELETE;


   RUN;

   DATA _NULL_;
      SET TEMP END=FINISHED;
```

```
      LENGTH CMPRS $39;
      LENGTH NUM $4;

      CMPRS=COMPRESS(REGCAT)||".xls";
      NUM=COMPRESS(PUT(_N_,4.));

      CALL SYMPUT("REGCAT"||NUM,REGCAT);
      CALL SYMPUT("CMPRS"||NUM,CMPRS);


      IF FINISHED THEN DO;
         CALL SYMPUT("N",_N_);
      END;
   RUN;

 *12/8/2009 RERUN ONE MTF ONLY;
       %RUNCW(AREA=59th Med Wing-Lackland,NAME=59thMedWing-Lackland.xls,FOLDER=&FOLDER);

   %MACRO PROCESS;
      %DO I=1 %TO &N;
       %RUNCW(AREA=&&REGCAT&I,NAME=&&CMPRS&I,FOLDER=&FOLDER);

      %END;
   %MEND PROCESS;

    *%PROCESS;

%MEND RUNBYREG;


%RUNBYREG(REG="South Air Force",FOLDER=South);
/*
%RUNBYREG(REG="South Army",FOLDER=South);
%RUNBYREG(REG="South Navy",FOLDER=South);
%RUNBYREG(REG="South Other",FOLDER=South);
```

```
*********************************************************************************
* PROJECT: 8860-420
* PROGRAM: CONSUMERWATCH-CMACRO.SAS
* PURPOSE: Run Catchment Consumer Watch
* AUTHOR : NATALIE JUSTH
* DATE   : 2/12/02
* UPDATED: 2/5/03
* UPDATED: 11/17/03
* UPDATED: 03/17/05 BY LUCY LU.
* UPDATED: 01/02/06 BY LUCY LU.
* UPDATED: 11/22/06 BY LUCY LU.
* UPDATED: 11/16/07 BY LUCY LU.
*********************************************************************************;
OPTIONS PS=63 LS=200 COMPRESS=NO ERRORS=2 NOCENTER SOURCE2 NOFMTERR SPOOL;


/**********************/
/* TIME PERIOD MACROS */
/**********************/
%LET YEAR   = 2009;
%LET YEARP1 = 2008;
%LET YEARP2 = 2007;


LIBNAME LIBRARY '..\..\Data\fmtlib';
LIBNAME INT  '..\loadwebv4';


/*LLU 03/17/2005, REMOVE APOSTROPHE FROM VARIABLE REGCAT FOR EXCEL NAMING*/

DATA TREND_A;
   SET INT.TREND_A(RENAME=(REGCAT=XREGCAT));

REGCAT=COMPRESS(XREGCAT,"'");
DROP XREGCAT;

RUN;



%INCLUDE "CONSUMERWATCH-CMACRO.INC";

/*** MACRO TO RUN CATCHMENT LEVEL REPORTS BY REGION ****/

%MACRO RUNBYREG (REG=,    /*Region as it appears in TREND_A */
                 FOLDER=  /*Regional folder name            */
                );

   PROC FREQ DATA=TREND_A;
      TABLES REGION*REGCAT / LIST MISSING OUT=TEMP;
      WHERE (REGION=&REG AND REGCAT NE &REG) OR REGION='CONUS MHS';
   RUN;

   DATA TEMP;
      SET TEMP;

      /* DO NOT PRODUCE CONSUMER WATCH REPORTS FOR OUT OF CATCHMENT AREAS */

      IF SUBSTR(REGCAT,1,16)="Out of Catchment" THEN DELETE;


   RUN;

   DATA _NULL_;
      SET TEMP END=FINISHED;

      LENGTH CMPRS $39;
      LENGTH NUM $4;

      CMPRS=COMPRESS(REGCAT)||".xls";
```

```
        NUM=COMPRESS(PUT(_N_,4.));

        CALL SYMPUT("REGCAT"||NUM,REGCAT);
        CALL SYMPUT("CMPRS"||NUM,CMPRS);


        IF FINISHED THEN DO;
            CALL SYMPUT("N",_N_);
        END;
    RUN;

    %MACRO PROCESS;
        %DO I=1 %TO &N;
            %RUNCW(AREA=&&REGCAT&I,NAME=&&CMPRS&I,FOLDER=&FOLDER);
        %END;
    %MEND PROCESS;

    %PROCESS;

%MEND RUNBYREG;

%RUNBYREG(REG="West Air Force",FOLDER=West);
%RUNBYREG(REG="West Army",FOLDER=West);
%RUNBYREG(REG="West Navy",FOLDER=West);
%RUNBYREG(REG="West Other",FOLDER=West);
```

```
********************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-CONUS.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE FOR CONUS DATA.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/2005 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  09/01/2006 Lucy Lu FOR FY 3 2006.
* UPDATE:  10/05/2006 Lucy Lu FOR FY 4 2006.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* UPDATED  12/27/2008 BY LUCY LU FOR Q1 FY 2008
*          AUTOMATE THE CONSUMER WATCH REPORT PRODUCTION
* MODIFIED 5/11/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
*          3.MACRO VARIABLES %LET PERIODxQ WILL BE FIXED AT Q4-Q1.
*            NO CHANGE NEEDED IN EACH QUARTER SINCE THEY ARE THE PROXIES FOR
*            DATASET NAMES ONLY.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\LOADWEB\TOTAL_Q.SAS7BDAT
*
* OUTPUT : INTO EXCEL SPREADSHEET AND MICROSOFT WORD
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO.INC
********************************************************************************;
OPTIONS MPRINT;

/***************************/
/* UPDATE REGIONAL LIBNAMES */
/***************************/

/* LIBNAMES for Regional Consumer Watch */


LIBNAME CURNTR '..\Loadweb';

*options mprint;

/******************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/******************************************/

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

*Note macro variables PERIOD(1-4)Q used for the dateset name only;


%LET PERIOD4   = 'July, 2009';      *CURRENT QUARTER;
%LET PERIOD4Q  = Q4;

%LET PERIOD3   = 'April, 2009';
%LET PERIOD3Q  = Q3;
```

```
%LET PERIOD2    = 'January, 2009';
%LET PERIOD2Q   = Q2;

%LET PERIOD1    = 'October, 2008';
%LET PERIOD1Q   = Q1;


%LET POP= Prime Enrollees;

TITLE "6663-420 DOD CONSUMER WATCH &PERIOD4Q FY 2009";

%INCLUDE "CONSUMERWATCH-MACRO.INC";


%RUNCW(AREA=USA MHS,
       FOLDER=CONUSMHS,
       CURRENT=CURNTR.TOTAL_Q);
```

```
********************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-R.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE FOR REGIONS.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004 DATA.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/05 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  08/31/2006 FOR Q3 FISCAL YEAR 2006, LUCY Lu. REGIONAL CHANGE TO
*          OVERSEAS EUROPE AND OVERSEAS PACIFIC.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
*
* UPDATED  12/27/2008 BY LUCY LU FOR Q1 FY 2008
*          AUTOMATE THE CONSUMER WATCH REPORT PRODUCTION
* MODIFIED 5/11/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
*          3.MACRO VARIABLES %LET PERIODxQ WILL BE FIXED AT Q4-Q1.
*            NO CHANGE NEEDED IN EACH QUARTER SINCE THEY ARE THE PROXIES FOR
*            DATASET NAMES ONLY.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\LOADWEB\CONUS_Q.SAS7BDAT
*
* OUTPUT : INTO EXCEL SPREADSHEET AND MICROSOFT WORD
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO.INC
********************************************************************************;


/* LIBNAMES for Regional Consumer Watch */
LIBNAME CURNTR '..\Loadweb';


/******************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/******************************************/

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

*Note macro variables PERIOD(1-4)Q used for the dateset name only;


%LET PERIOD4   = 'July, 2009';      *CURRENT QUARTER;
%LET PERIOD4Q  = Q4;

%LET PERIOD3   = 'April, 2009';
%LET PERIOD3Q  = Q3;

%LET PERIOD2   = 'January, 2009';
%LET PERIOD2Q  = Q2;

%LET PERIOD1   = 'October, 2008';
```

```
%LET PERIOD1Q   = Q1;


%LET POP= Prime Enrollees;

TITLE "6663-420 DOD CONSUMER WATCH &PERIOD4Q FY 2009";

%INCLUDE "CONSUMERWATCH-MACRO.INC";

%RUNCW(AREA=SOUTH,
       FOLDER=South,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=NORTH,
       FOLDER=North,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=WEST,
       FOLDER=West,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=Overseas Europe,
       FOLDER=Europe,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=Overseas Pacific,
       FOLDER=Pacific,
       CURRENT=CURNTR.TOTAL_Q);
```

```
****************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-S.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE FOR SERVICE AFFILIATION.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004 DATA.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/05 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  09/01/2006 FOR Q3 FISCAL YEAR 2006, LUCY Lu.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* UPDATED  12/27/2008 BY LUCY LU FOR Q1 FY 2008
*          AUTOMATE THE CONSUMER WATCH REPORT PRODUCTION
* MODIFIED 5/11/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING THE VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*             RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
*          3.MACRO VARIABLES %LET PERIODxQ WILL BE FIXED AT Q4-Q1.
*            NO CHANGE NEEDED IN EACH QUARTER SINCE THEY ARE THE PROXIES FOR
*            DATASET NAMES ONLY.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\LOADWEB\CONUS_Q.SAS7BDAT
*
* OUTPUT : INTO EXCEL SPREADSHEET AND MICROSOFT WORD
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO.INC
****************************************************************************;


/* LIBNAMES for Regional Consumer Watch */
LIBNAME CURNTR '..\Loadweb';


/******************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/******************************************/

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

*Note macro variables PERIOD(1-4)Q used for the dateset name only;


%LET PERIOD4   = 'July, 2009';       *CURRENT QUARTER;
%LET PERIOD4Q  = Q4;

%LET PERIOD3   = 'April, 2009';
%LET PERIOD3Q  = Q3;

%LET PERIOD2   = 'January, 2009';
%LET PERIOD2Q  = Q2;

%LET PERIOD1   = 'October, 2008';
%LET PERIOD1Q  = Q1;
```

```
%LET POP= Prime Enrollees;

TITLE "6663-420 DOD CONSUMER WATCH &PERIOD4Q FY 2009";

%INCLUDE "CONSUMERWATCH-MACRO.INC";


%RUNCW(AREA=NAVY,
       FOLDER=Navy,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=AIR FORCE,
       FOLDER=AirForce,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=ARMY,
       FOLDER=Army,
       CURRENT=CURNTR.TOTAL_Q);
```

```
*********************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-MACRO.INC
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
*          for regional consumer watch
* AUTHOR : MIKI SATAKE
* DATE   : 4/24/01
* UPDATED: 7/16/01 FOR QUARTER 2 BY NATALIE JUSTH
* UPDATED: 10/16/01 FOR QUARTER 3 BY NATALIE JUSTH
* UPDATED: 1/11/02 FOR QUARTER 4 BY NATALIE JUSTH
* UPDATED AND RENAMED: 4/9/02 FOR QUARTER 1 2002 BY NATALIE JUSTH
* UPDATED: 7/5/02 FOR QUARTER 2 2002 BY NATALIE JUSTH
* UPDATED: 7/15/02 FOR QUARTER 3 2002 BY NATALIE JUSTH
* UPDATED: 11/12/02 FOR QUARTER 4 2002 BY NATALIE JUSTH
* UPDATED: 4/3/03 FOR QUARTER 1 2003 BY NATALIE JUSTH
* UPDATED: 5/19/03 FOR QUARTER 2 2003 BY NATALIE JUSTH
* UPDATED: 8/28/03 FOR QUARTER 3 2003 BY NATALIE JUSTH
* UPDATED: 11/14/03 FOR QUARTER 4 2003 BY NATALIE JUSTH
* UPDATED: 05/18/2004 FOR QUARTER 1 2004 BY KEITH RATHBUN
* UPDATED: 06/30/2004 FOR QUARTER 2 2004 BY LUCY LU
* UPDATED: 06/30/2004 FOR QUARTER 3 2004 BY LUCY LU. CHANGING XREGION TO XTNEXREG.
* UPDATED: 10/07/2004 BY LUCY LU. ADD THE CODE TO COMPARE CONSUMER WATCH
*          WITH REPORT CARDS IN SCORES AND SIGNIFICANCE.*
* MODIFIED 2/10/05 BY LUCY LU:
*          1). CREATE UNIVERSAL MACRO PROGRAM BASED ON PROGRAM CONSUMERWATCH-R.SAS
*                 TO ELIMINATE REDUNDANCY AND INCREASE THE EFFECTIVENESS OF PROGRAMMING.
*          2). ADD ADDITIONAL PREVENTION MEASURE "SMOKING CESSATION"
*                 INTO PREVENTIVE CARE TABLE.
* MODIFIED 06/2/2005 BY LUCY LU FOR Q1 2005:
*          1). REMOVE CHOLESTEROL MEASUREMENT AND ADD BMI MEASUREMENT
*          2). COMMENT OUT DISENROLL CODE--NO DISENROLL DATA IN Q1 2005
*          3). ADD SPECIALIST RATING.
* MODIFIED 11/16/2006 BY LUCY LU FOR FY Q4 2006
*           ADD PURCHASE CARE VERSION-- CHANGE PRIME ENROLLEE TO
*           Enrollees with Civilian PCM.
* MODIFIED 6/4/2007 BY LUCY LU. UNIFY THE MACRO PROGRAMS FOR CONSUMER WATCH.
*          !! NEED TO DEFIND MACRO VARIABLE &POP IN SAS PROGRAMS:
*          DIRECT CARE CONSUMDER WATCH:  &POP=='Prime Enrollees'
*          PURCHASE CARE CONSUMDER WATCH:  &POP=='Enrollees with Civilian PCM'
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* MODIFIED 5/11/09 BY LUCY LU
*          1. STARTING THIS QUARTER, THE DATA DOES NOT INCLUDE THE VALUE OF
*             'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*              RELATED CODE.
*          2. DELTED MACRO VAR &VAL AND REPLACED BY EXISTING MACRO VAR &AREA.
*
*
* INPUT  : DATA FROM CONSUMER REPORTS:..\..\PROGRAMS\LOADWEB\TOTAL_Q.SAS7BDAT
*
* OUTPUT : INTO EXCEL SPREADSHEET
*********************************************************************************;

OPTIONS PS=60 LS=120 ERRORS=2 NOCENTER NOFMTERR NOXWAIT NOXSYNC SPOOL;


%MACRO RUNCW (AREA=,        /* Region/Service/conus                      */
              FOLDER=,      /* Folder containing excel template          */
              CURRENT=,     /* Libname and dataset for the current quarter */
              );
```

```
x "COPY TEMPLATE.XLS &FOLDER.\&FOLDER..XLS";
DATA _NULL_;
   X=SLEEP(1);
RUN;


X "START &FOLDER.\&FOLDER..XLS";
DATA _NULL_;
   X=SLEEP(2);
RUN;



FILENAME CMDS DDE "EXCEL│SYSTEM";
DATA _NULL_;
   FILE CMDS;
   PUT '[app.minimize()]';
RUN;



TITLE2 "&AREA.";

/* This macro pulls data from the specified dataset to be used in the Consumer Watch */
%MACRO GETDATA (DATASET=,    /* Current quarter data set  */
                MAJGRP=,     /* Value of variable MAJGRP  */
                REGION=,     /* Value of variable REGION  */
                REGCAT=,     /* Value of variable REGCAT  */
                BENEFIT=,    /* Value of variable BENEFIT */
                BENTYPE=,    /* Value of variable BENTYPE */
                TIMEPD=,     /* Value of variable TIMEPD  */
                OUTDATA=     /* Name of output data set   */
                );
PROC FREQ NOPRINT DATA=&DATASET;
   WHERE MAJGRP = &MAJGRP
      AND REGION IN &REGION
      AND REGCAT IN &REGCAT
      AND BENEFIT IN &BENEFIT
      AND BENTYPE = &BENTYPE
      AND TIMEPD = &TIMEPD;
   TABLES                 MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SCORE*N_OBS*N_WGT*SIG/
OUT=&OUTDATA(DROP=COUNT PERCENT);
RUN;
%MEND GETDATA;

/* This macro re-calculates SCORE based on the quarterly benchmark */
%MACRO  NEWSCORE  (FIGURE=,             /*  Figure  number  in  consumer  watch  reports
*/
                   QUARTER=       /* Data is processed for current quarter and each of 3
previous quarters */
                   );
DATA FIG&FIGURE&QUARTER FIGB&QUARTER(KEEP=SCORE N);
   SET FIG&FIGURE&QUARTER;
N=1;
   IF REGION='Benchmark' THEN OUTPUT FIGB&QUARTER;
      ELSE OUTPUT FIG&FIGURE&QUARTER;

RUN;

/*ADD CODE HERE TO PRESERVE ABOVE DATASET FOR LATER COMPARISON. LLU 10/7/04*/

DATA CFIG&FIGURE&QUARTER;
   SET FIG&FIGURE&QUARTER;

KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
RUN;


DATA FIG&FIGURE&QUARTER(DROP=RSCORE);
   MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
         FIG&FIGURE&QUARTER;
BY N;
 *  SCORE=SCORE-RSCORE;
RUN;
%MEND NEWSCORE;

%MACRO COMBDATA (FIGURE=   /* Figure number in consumer watch reports */
```

```
                );
DATA FIG&FIGURE(DROP=BSCORE);
   SET BENCH FIG&FIGURE.Q1 FIG&FIGURE.Q4 FIG&FIGURE.Q3 FIG&FIGURE.Q2;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = &PERIOD1 THEN DO;
      ROW = 4;
 *    SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = &PERIOD2 THEN DO;
      ROW = 5;
 *    SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = &PERIOD3 THEN DO;
      ROW = 6;
    * SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = &PERIOD4 THEN DO;
      ROW=7;
 *    SCORE=SCORE+BSCORE;
   END;
   COL2 = SCORE;   *3/4/08 LLu, increase the score by 100 to align with fig. 5-10;

   COL3 = SIG;
RUN;
PROC SORT;
   BY ROW;
RUN;
%MEND COMBDATA;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD4,
          OUTDATA=FIG1&PERIOD4Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD3,
          OUTDATA=FIG1&PERIOD3Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD2,
          OUTDATA=FIG1&PERIOD2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
```

```
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Health Care'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD1,
                    OUTDATA=FIG1&PERIOD1Q);

%NEWSCORE (FIGURE=1,
                    QUARTER=&PERIOD4Q);
%NEWSCORE (FIGURE=1,
                    QUARTER=&PERIOD3Q);
%NEWSCORE (FIGURE=1,
                    QUARTER=&PERIOD2Q);
%NEWSCORE (FIGURE=1,
                    QUARTER=&PERIOD1Q);

%COMBDATA (FIGURE=1);




*******************************************************************************
* DDE LINK
*******************************************************************************;
FILENAME TBL DDE "EXCEL|RATINGS!R18C2:R22C3";

DATA _NULL_;
    SET FIG1;
    FILE TBL NOTAB LRECL=200;
    X=SLEEP(.1);
    PUT COL2 '09'X COL3;
RUN;

*******************************************************************************
* FIGURE 2: Health Plan Rating
*******************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';
%GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=('Benchmark'),
                    REGCAT=('Benchmark'),
                    BENEFIT=('Health Plan'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD4,
                    OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Health Plan'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD4,
                    OUTDATA=FIG2&PERIOD4Q);
%GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Health Plan'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD3,
                    OUTDATA=FIG2&PERIOD3Q);
%GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Health Plan'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD2,
                    OUTDATA=FIG2&PERIOD2Q);
%GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Health Plan'),
                    BENTYPE=('Composite'),
```

```
                    TIMEPD=&PERIOD1,
                    OUTDATA=FIG2&PERIOD1Q);

      %NEWSCORE (FIGURE=2,
                    QUARTER=&PERIOD4Q);
      %NEWSCORE (FIGURE=2,
                    QUARTER=&PERIOD3Q);
      %NEWSCORE (FIGURE=2,
                    QUARTER=&PERIOD2Q);
      %NEWSCORE (FIGURE=2,
                    QUARTER=&PERIOD1Q);

      %COMBDATA (FIGURE=2);



      ********************************************************************************
      * DDE LINK (EXCEL file has to be open )
      *******************************************************************************;
      FILENAME TBL DDE "EXCEL|RATINGS!R18C6:R22C7";

      DATA _NULL_;
         SET FIG2;
         FILE TBL NOTAB LRECL=200;
         X=SLEEP(.1);
         PUT COL2 '09'X COL3;
      RUN;

      ********************************************************************************
      * FIGURE 3: Personal Provider Rating
      *******************************************************************************;
      TITLE2 'Figure 3: Personal Provider Rating';
      %GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=('Benchmark'),
                    REGCAT=('Benchmark'),
                    BENEFIT=('Personal Doctor'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD4,
                    OUTDATA=BENCH);
      %GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Personal Doctor'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD4,
                    OUTDATA=FIG3&PERIOD4Q);
      %GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Personal Doctor'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD3,
                    OUTDATA=FIG3&PERIOD3Q);
      %GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Personal Doctor'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD2,
                    OUTDATA=FIG3&PERIOD2Q);
      %GETDATA (DATASET=&CURRENT,
                    MAJGRP="&POP",
                    REGION=("&AREA",'Benchmark'),
                    REGCAT=("&AREA",'Benchmark'),
                    BENEFIT=('Personal Doctor'),
                    BENTYPE=('Composite'),
                    TIMEPD=&PERIOD1,
                    OUTDATA=FIG3&PERIOD1Q);

      %NEWSCORE (FIGURE=3,
```

```
                 QUARTER=&PERIOD4Q);
%NEWSCORE (FIGURE=3,
                 QUARTER=&PERIOD3Q);
%NEWSCORE (FIGURE=3,
                 QUARTER=&PERIOD2Q);
%NEWSCORE (FIGURE=3,
                 QUARTER=&PERIOD1Q);


%COMBDATA (FIGURE=3);



********************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|RATINGS!R18C10:R22C11";

DATA _NULL_;
   SET FIG3;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2 '09'X COL3;
RUN;

********************************************************************************
* FIGURE 4: Specialist Rating--added for Q1 2005, LLu 6/2/05
*******************************************************************************;
TITLE2 'Figure 4: Specialist Rating';
%GETDATA (DATASET=&CURRENT,
           MAJGRP="&POP",
           REGION=('Benchmark'),
           REGCAT=('Benchmark'),
           BENEFIT=('Specialty Care'),
           BENTYPE=('Composite'),
           TIMEPD=&PERIOD4,
           OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
           MAJGRP="&POP",
           REGION=("&AREA",'Benchmark'),
           REGCAT=("&AREA",'Benchmark'),
           BENEFIT=('Specialty Care'),
           BENTYPE=('Composite'),
           TIMEPD=&PERIOD4,
           OUTDATA=FIG4&PERIOD4Q);
%GETDATA (DATASET=&CURRENT,
           MAJGRP="&POP",
           REGION=("&AREA",'Benchmark'),
           REGCAT=("&AREA",'Benchmark'),
           BENEFIT=('Specialty Care'),
           BENTYPE=('Composite'),
           TIMEPD=&PERIOD3,
           OUTDATA=FIG4&PERIOD3Q);
%GETDATA (DATASET=&CURRENT,
           MAJGRP="&POP",
           REGION=("&AREA",'Benchmark'),
           REGCAT=("&AREA",'Benchmark'),
           BENEFIT=('Specialty Care'),
           BENTYPE=('Composite'),
           TIMEPD=&PERIOD2,
           OUTDATA=FIG4&PERIOD2Q);
%GETDATA (DATASET=&CURRENT,
           MAJGRP="&POP",
           REGION=("&AREA",'Benchmark'),
           REGCAT=("&AREA",'Benchmark'),
           BENEFIT=('Specialty Care'),
           BENTYPE=('Composite'),
           TIMEPD=&PERIOD1,
           OUTDATA=FIG4&PERIOD1Q);

%NEWSCORE (FIGURE=4,
                 QUARTER=&PERIOD4Q);
%NEWSCORE (FIGURE=4,
                 QUARTER=&PERIOD3Q);
%NEWSCORE (FIGURE=4,
                 QUARTER=&PERIOD2Q);
```

```
    %NEWSCORE (FIGURE=4,
               QUARTER=&PERIOD1Q);

    %COMBDATA (FIGURE=4);



    ********************************************************************************
    * DDE LINK (EXCEL file has to be open )
    *******************************************************************************;
    FILENAME TBL DDE "EXCEL|RATINGS!R18C14:R22C15";

    DATA _NULL_;
       SET FIG4;
       FILE TBL NOTAB LRECL=200;
       X=SLEEP(.1);
       PUT COL2 '09'X COL3;
    RUN;

    ********************************************************************************
    * FIGURE 5: Access Composites
    *******************************************************************************;
    TITLE2 'Figure 5: Access Composites';
    %GETDATA (DATASET=&CURRENT,
              MAJGRP="&POP",
              REGION=('Benchmark'),
              REGCAT=('Benchmark'),
              BENEFIT=('Getting Needed Care','Getting Care Quickly'),
              BENTYPE=('Composite'),
              TIMEPD=&PERIOD4,
              OUTDATA=BENCH);
    %GETDATA (DATASET=&CURRENT,
              MAJGRP="&POP",
              REGION=("&AREA",'Benchmark'),
              REGCAT=("&AREA",'Benchmark'),
              BENEFIT=('Getting Needed Care','Getting Care Quickly'),
              BENTYPE=('Composite'),
              TIMEPD=&PERIOD4,
              OUTDATA=FIG5&PERIOD4Q);
    %GETDATA (DATASET=&CURRENT,
              MAJGRP="&POP",
              REGION=("&AREA",'Benchmark'),
              REGCAT=("&AREA",'Benchmark'),
              BENEFIT=('Getting Needed Care','Getting Care Quickly'),
              BENTYPE=('Composite'),
              TIMEPD=&PERIOD3,
              OUTDATA=FIG5&PERIOD3Q);
    %GETDATA (DATASET=&CURRENT,
              MAJGRP="&POP",
              REGION=("&AREA",'Benchmark'),
              REGCAT=("&AREA",'Benchmark'),
              BENEFIT=('Getting Needed Care','Getting Care Quickly'),
              BENTYPE=('Composite'),
              TIMEPD=&PERIOD2,
              OUTDATA=FIG5&PERIOD2Q);
    %GETDATA (DATASET=&CURRENT,
              MAJGRP="&POP",
              REGION=("&AREA",'Benchmark'),
              REGCAT=("&AREA",'Benchmark'),
              BENEFIT=('Getting Needed Care','Getting Care Quickly'),
              BENTYPE=('Composite'),
              TIMEPD=&PERIOD1,
              OUTDATA=FIG5&PERIOD1Q);

    %MACRO COMPSCORE (QUARTER=,      /*Data is processed for current quarter and each of 3
    previous quarters*/
                       FIGNUM=                /*Use  macro  for  figures  5,  6,  and  7
    */
                      );
    DATA FIG&FIGNUM.Q&QUARTER FIGB&QUARTER(KEEP=SCORE BENEFIT SIG);
       SET FIG&FIGNUM.Q&QUARTER;
       IF REGION = 'Benchmark' THEN OUTPUT FIGB&QUARTER;
         ELSE OUTPUT FIG&FIGNUM.Q&QUARTER;
    RUN;
```

```
     PROC SORT DATA=FIG&FIGNUM.Q&QUARTER;
        BY BENEFIT;
     RUN;
     PROC SORT DATA=FIGB&QUARTER;
        BY BENEFIT;
     RUN;


     /*ADD CODE HERE TO PRESERVE THE SCORES IN CONUS_Q DATASET FOR LATER COMPARISON. LLU
10/7/04*/
     DATA CFIG&FIGNUM.Q&QUARTER;
        SET FIG&FIGNUM.Q&QUARTER;

     KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
     RUN;


     DATA FIG&FIGNUM.Q&QUARTER(DROP=RSCORE);
        MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
              FIG&FIGNUM.Q&QUARTER;
        BY BENEFIT;
     *   SCORE=SCORE-RSCORE;
     RUN;
     %MEND COMPSCORE;

     %COMPSCORE (QUARTER=1,
                 FIGNUM=5);
     %COMPSCORE (QUARTER=2,
                 FIGNUM=5);
     %COMPSCORE (QUARTER=3,
                 FIGNUM=5);
     %COMPSCORE (QUARTER=4,
                 FIGNUM=5);


     DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
          COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
          COL4(DROP=SCORE RENAME=(SCORE1=COL4))          /*LLU 10/8/04, TO PRESERVE KEY VARS FOR
LATER COMPARISON*/
          COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
          COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
          COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
          ;
        SET BENCH FIG5Q4 FIG5Q3 FIG5Q2 FIG5Q1;
        BY BENEFIT;
        RETAIN BSCORE;
        IF REGION = 'Benchmark' THEN DO;
           BSCORE=SCORE;
           ROW = 18;
           SCORE1 = SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD1 THEN DO;
           ROW = 18;
     *       SCORE=BSCORE+SCORE;
           IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD2 THEN DO;
          ROW = 19;
      *       SCORE=BSCORE+SCORE;
           IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD3 THEN DO;
           ROW = 20;
       *    SCORE=BSCORE+SCORE;
           IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD4 THEN DO;
           ROW = 21;
       *   SCORE=BSCORE+SCORE;
           SCORE1 = SCORE;
        END;
```

```
    IF (BENEFIT = 'Getting Needed Care' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
    IF (BENEFIT = 'Getting Needed Care' AND REGION = 'Benchmark') THEN OUTPUT COL3;
    IF (BENEFIT = 'Getting Care Quickly' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
    IF (BENEFIT = 'Getting Care Quickly' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 10/7/04*/

DATA FIG5A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG5B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG5AB;
   SET FIG5A FIG5B;
  BY ROW;
RUN;




DATA FIG5;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4)
         COL5 COL6 COL7;
   BY ROW;
RUN;


******************************************************************************
* DDE LINK (EXCEL file has to be open )
******************************************************************************;
FILENAME TBL DDE "EXCEL|COMPOSITES!R18C2:R21C2";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C3:R18C3";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C4:R21C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C5:R18C5";
```

```
DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C2:R26C4";

DATA _NULL_;
   SET FIG5;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL6 '09'X '09'X COL7;
RUN;

********************************************************************************
* FIGURE 6: Office Composites
********************************************************************************;
 /*LLU 5/11/09, DELETE datasets COL2,3,6 WITH SCORES OF
      'Courteous and Helpful Office Staff'*/

TITLE2 'Figure 6: Office Composites';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD4,
          OUTDATA=FIG6&PERIOD4Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD3,
          OUTDATA=FIG6&PERIOD3Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD2,
          OUTDATA=FIG6&PERIOD2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD1,
          OUTDATA=FIG6&PERIOD1Q);

%COMPSCORE (QUARTER=1,
            FIGNUM=6);
%COMPSCORE (QUARTER=2,
            FIGNUM=6);
%COMPSCORE (QUARTER=3,
            FIGNUM=6);
%COMPSCORE (QUARTER=4,
            FIGNUM=6);
```

```
     DATA COL4(DROP=SCORE RENAME=(SCORE1=COL4))           /*LLU 10/8/04, TO PRESERVE KEY VARS FOR
LATER COMPARISON*/
         COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
         COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
          ;
        SET BENCH FIG6Q4 FIG6Q3 FIG6Q2 FIG6Q1;
        BY BENEFIT;
        RETAIN BSCORE;
        IF REGION = 'Benchmark' THEN DO;
          BSCORE=SCORE;
          ROW = 18;
          SCORE1 = SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD1 THEN DO;
          ROW = 18;
      *    SCORE=BSCORE+SCORE;
          IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD2 THEN DO;
          ROW = 19;
      *    SCORE=BSCORE+SCORE;
          IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD3 THEN DO;
          ROW = 20;
       *   SCORE=BSCORE+SCORE;
          IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD4 THEN DO;
          ROW = 21;
        * SCORE=BSCORE+SCORE;
          SCORE1 = SCORE;
        END;

        IF (BENEFIT = 'How Well Doctors Communicate' AND REGION NE 'Benchmark') THEN OUTPUT COL4
    COL7;
        IF (BENEFIT = 'How Well Doctors Communicate' AND REGION = 'Benchmark') THEN OUTPUT COL5;

     RUN;


     PROC SORT DATA=COL4; BY ROW; RUN;
     PROC SORT DATA=COL5; BY ROW; RUN;
     PROC SORT DATA=COL7; BY ROW; RUN;


     DATA FIG6;
        MERGE COL4(KEEP=ROW COL4)
              COL5 COL7;
        BY ROW;
     RUN;


     /*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 6. LLU 10/7/04*/
     DATA FIG6AB;
        MERGE  COL4 COL7;
       BY ROW;
     RUN;


     *****************************************************************************
     * DDE LINK (EXCEL file has to be open )
     *****************************************************************************;


     FILENAME TBL DDE "EXCEL|COMPOSITES!R18C9:R21C9";

     DATA _NULL_;
        SET FIG6;
        FILE TBL NOTAB LRECL=200;
        X=SLEEP(.1);
```

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```
      PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C10:R18C10";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C9:R26C9";

DATA _NULL_;
   SET FIG6;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL7;
RUN;

********************************************************************************
* FIGURE 7: Claims/Service Composites
********************************************************************************;
TITLE2 'Figure 7: Claims/Service Composites';
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD4,
          OUTDATA=FIG7&PERIOD4Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD3,
          OUTDATA=FIG7&PERIOD3Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD2,
          OUTDATA=FIG7&PERIOD2Q);
%GETDATA (DATASET=&CURRENT,
          MAJGRP="&POP",
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Customer Service','Claims Processing'),
          BENTYPE=('Composite'),
          TIMEPD=&PERIOD1,
          OUTDATA=FIG7&PERIOD1Q);

%COMPSCORE (QUARTER=1,
            FIGNUM=7);
%COMPSCORE (QUARTER=2,
            FIGNUM=7);
%COMPSCORE (QUARTER=3,
            FIGNUM=7);
%COMPSCORE (QUARTER=4,
            FIGNUM=7);
```

```
      DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
           COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
           COL4(DROP=SCORE RENAME=(SCORE1=COL4))              /*LLU 10/8/04, TO PRESERVE KEY VARS FOR
LATER COMPARISON*/
           COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
           COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
           COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
        SET BENCH FIG7Q4 FIG7Q3 FIG7Q2 FIG7Q1;
        BY BENEFIT;
        RETAIN BSCORE;
        IF REGION = 'Benchmark' THEN DO;
           BSCORE=SCORE;
           ROW = 18;
           SCORE1 = SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD1 THEN DO;
           ROW = 18;
      *    SCORE=BSCORE+SCORE;
           IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD2 THEN DO;
           ROW = 19;
      *    SCORE=BSCORE+SCORE;
           IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD3 THEN DO;
           ROW = 20;
       *  SCORE=BSCORE+SCORE;
           IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD4 THEN DO;
           ROW = 21;
        * SCORE=BSCORE+SCORE;
           SCORE1 = SCORE;
        END;

        IF (BENEFIT = 'Customer Service' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
        IF (BENEFIT = 'Customer Service' AND REGION = 'Benchmark') THEN OUTPUT COL3;
        IF (BENEFIT = 'Claims Processing' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
        IF (BENEFIT = 'Claims Processing' AND REGION = 'Benchmark') THEN OUTPUT COL5;

     RUN;

     PROC SORT DATA=COL2; BY ROW; RUN;
     PROC SORT DATA=COL3; BY ROW; RUN;
     PROC SORT DATA=COL4; BY ROW; RUN;
     PROC SORT DATA=COL5; BY ROW; RUN;
     PROC SORT DATA=COL6; BY ROW; RUN;
     PROC SORT DATA=COL7; BY ROW; RUN;


     /*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 7. LLU 10/7/04*/

     DATA FIG7A;
       MERGE COL2 COL6;
       BY ROW;
     RUN;

     DATA FIG7B;
       MERGE  COL4 COL7;
       BY ROW;
     RUN;

     DATA FIG7AB;
       SET FIG7A FIG7B;
       BY ROW;
     RUN;


     DATA FIG7;
```

```
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;


*******************************************************************************
* DDE LINK (EXCEL file has to be open )
*******************************************************************************;
FILENAME TBL DDE "EXCEL|COMPOSITES!R18C14:R21C14";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL2;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C15:R18C15";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL3;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C16:R21C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL4;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R18C17:R18C17";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL5;
RUN;

FILENAME TBL DDE "EXCEL|COMPOSITES!R23C14:R26C16";

DATA _NULL_;
   SET FIG7;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT COL6 '09'X '09'X COL7;
RUN;

*******************************************************************************
* TABLE 1: Preventive Care
*******************************************************************************;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP IN ("&POP",'Benchmark')
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
     AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                     'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit')
     AND TIMEPD = &PERIOD4;
   TABLES                              MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/
OUT=TAB1_&PERIOD4Q(DROP=COUNT PERCENT);
   TABLES  MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*N_OBS/  OUT=TAB2_&PERIOD4Q(DROP=COUNT
PERCENT);
RUN;
PROC FREQ NOPRINT DATA=&CURRENT;
   WHERE MAJGRP = "&POP"
     AND REGION = "&AREA"
     AND REGCAT = "&AREA"
     AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
```

```
               AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                                'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
               AND TIMEPD = &PERIOD3;
          TABLES                              MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/
OUT=TAB1_&PERIOD3Q(DROP=COUNT PERCENT);
     RUN;
     PROC FREQ NOPRINT DATA=&CURRENT;
         WHERE MAJGRP = "&POP"
           AND REGION = "&AREA"
           AND REGCAT = "&AREA"
           AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
           AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                             'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
           AND TIMEPD = &PERIOD2;
          TABLES                              MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/
OUT=TAB1_&PERIOD2Q(DROP=COUNT PERCENT);
     RUN;
     PROC FREQ NOPRINT DATA=&CURRENT;
         WHERE MAJGRP = "&POP"
           AND REGION = "&AREA"
           AND REGCAT = "&AREA"
           AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
           AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                             'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
           AND TIMEPD = &PERIOD1;
          TABLES                              MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/
OUT=TAB1_&PERIOD1Q(DROP=COUNT PERCENT);
     RUN;
     DATA TAB1&PERIOD4Q;
         SET TAB1_&PERIOD4Q;
         IF MAJGRP = 'Benchmark' THEN DO;
            ROW=42;
            IF BENTYPE='Mammography' THEN COL2=SCORE;
                ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
                ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
                ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
                ELSE IF BENTYPE='Percent Not Obese' THEN COL6=SCORE;
                ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=SCORE;
                ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=SCORE;
         END;
            ELSE DO;
            ROW = 40;
            IF BENTYPE='Mammography' THEN DO;
               COL2=SCORE;
               COL9=SIG;
            END;
            ELSE IF BENTYPE='Pap Smear' THEN DO;
               COL3=SCORE;
               COL10=SIG;
            END;
            ELSE IF BENTYPE='Hypertension' THEN DO;
               COL4=SCORE;
               COL11=SIG;
            END;
            ELSE IF BENTYPE='Prenatal Care' THEN DO;
               COL5=SCORE;
               COL12=SIG;
            END;
            ELSE IF BENTYPE='Percent Not Obese' THEN DO;
               COL6=SCORE;
               COL13=SIG;
            END;
            ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
               COL7=SCORE;
               COL14=SIG;
            END;
            ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
               COL8=SCORE;
               COL15=SIG;
            END;
          END;
        PROC SORT;
        BY ROW;
     RUN;
```

```
DATA TAB2&PERIOD4Q;
   SET TAB2_&PERIOD4Q;
   ROW=41;
   IF MAJGRP="&POP";
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
      ELSE IF BENTYPE='Percent Not Obese' THEN COL6=N_OBS;
      ELSE IF BENTYPE='Non-Smoking Rate' THEN COL7=N_OBS;
       ELSE IF BENTYPE='Counselled To Quit' THEN COL8=N_OBS;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PERIOD3Q;
   SET TAB1_&PERIOD3Q;
   ROW=39;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
      ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1&PERIOD2Q;
   SET TAB1_&PERIOD2Q;
   ROW=38;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
   ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
```

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```
            END;
            ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
               COL8=SCORE;
               COL15=SIG;
            END;
       PROC SORT;
       BY ROW;

RUN;
DATA TAB1&PERIOD1Q;
    SET TAB1_&PERIOD1Q;
    ROW=37;
        IF BENTYPE='Mammography' THEN DO;
           COL2=SCORE;
           COL9=SIG;
        END;
        ELSE IF BENTYPE='Pap Smear' THEN DO;
           COL3=SCORE;
           COL10=SIG;
        END;
        ELSE IF BENTYPE='Hypertension' THEN DO;
           COL4=SCORE;
           COL11=SIG;
        END;
        ELSE IF BENTYPE='Prenatal Care' THEN DO;
           COL5=SCORE;
           COL12=SIG;
        END;
        ELSE IF BENTYPE='Percent Not Obese' THEN DO;
           COL6=SCORE;
           COL13=SIG;
        END;
       ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
           COL7=SCORE;
           COL14=SIG;
        END;
        ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
           COL8=SCORE;
           COL15=SIG;
        END;
     PROC SORT;
     BY ROW;
RUN;

DATA TAB1;
   MERGE TAB1&PERIOD1Q TAB1&PERIOD2Q TAB1&PERIOD3Q TAB1&PERIOD4Q TAB2&PERIOD4Q;
   BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL10 COL11 COL12 COL13 COL14 COL15)
     COL10(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL11 COL12 COL13 COL14 COL15)
     COL11(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL12 COL13 COL14 COL15)
     COL12(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL13 COL14 COL15)
   COL13(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL14 COL15)
     COL14(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL15)
     COL15(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14);

    SET TAB1;

    IF COL2 NE . THEN OUTPUT COL2;
    IF COL3 NE . THEN OUTPUT COL3;
    IF COL4 NE . THEN OUTPUT COL4;
    IF COL5 NE . THEN OUTPUT COL5;
    IF COL6 NE . THEN OUTPUT COL6;
    IF COL7 NE . THEN OUTPUT COL7;
    IF COL8 NE . THEN OUTPUT COL8;
    IF COL9 NE . THEN OUTPUT COL9;
    IF COL10 NE . THEN OUTPUT COL10;
```

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```
      IF COL11 NE . THEN OUTPUT COL11;
      IF COL12 NE . THEN OUTPUT COL12;
      IF COL13 NE . THEN OUTPUT COL13;
      IF COL14 NE . THEN OUTPUT COL14;
      IF COL15 NE . THEN OUTPUT COL15;
   RUN;

   PROC SORT DATA=COL2; BY ROW; RUN;
   PROC SORT DATA=COL3; BY ROW; RUN;
   PROC SORT DATA=COL4; BY ROW; RUN;
   PROC SORT DATA=COL5; BY ROW; RUN;
   PROC SORT DATA=COL6; BY ROW; RUN;
   PROC SORT DATA=COL7; BY ROW; RUN;
   PROC SORT DATA=COL8; BY ROW; RUN;
   PROC SORT DATA=COL9; BY ROW; RUN;
   PROC SORT DATA=COL10; BY ROW; RUN;
   PROC SORT DATA=COL11; BY ROW; RUN;
   PROC SORT DATA=COL12; BY ROW; RUN;
   PROC SORT DATA=COL13; BY ROW; RUN;
   PROC SORT DATA=COL14; BY ROW; RUN;
   PROC SORT DATA=COL15; BY ROW; RUN;

   DATA TABLE1;
      MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15;
      BY ROW;
   RUN;

   *******************************************************************************
   * DDE LINK (EXCEL file has to be open )
   *******************************************************************************;
   FILENAME TBL DDE "EXCEL|TABLES!R3C10:R8C24";

   DATA _NULL_;
      SET TABLE1;
      FILE TBL NOTAB LRECL=200;
      IF ROW NE 42 THEN DO;
      PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9
'09'X COL10
         '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
      END;
      ELSE DO;    *no benchmark for counselling;
      PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X '-' '09'X COL9
'09'X COL10
         '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
      END;
   RUN;

   /*Run Excel macro signif,  May 9 2006, LLU*/

   options noxsync;
   *-- Specify XL filename ;

   *%let excelf = &FOLDER..XLS ;

   *-- Specify XL macro name ;
   %let macron = signif ;


   FILENAME CMDS DDE "EXCEL|SYSTEM";


   DATA _NULL_;
     FILE CMDS;
     DDECommand = '[Run("' || "&macron" || '",0)]' ;
     put DDEcommand ;

   RUN;


   DATA _NULL_;
      FILE CMDS;
      PUT '[SAVE]';
      PUT '[QUIT]';
   RUN;
```

```
    **********************************************************************************
        COMPARE SCORES AND SIG B/T CONSUMER WATCH AND REPORT CARDS.
        SET 0.015 DIFFERENCE AS THRESHOLD.
        LUCY LU 10/07/2004
    **********************************************************************************;

    PROC SORT DATA=FIG1(DROP=SCORE);                *FROM CONSUMER WATCH. LLU 10/8/04;
    BY BENEFIT TIMEPD REGION;

    PROC SORT DATA=FIG2(DROP=SCORE);
    BY BENEFIT TIMEPD REGION;

    PROC SORT DATA=FIG3(DROP=SCORE);
    BY BENEFIT TIMEPD REGION;

    PROC SORT DATA=FIG5AB OUT=FIG5;
    BY BENEFIT TIMEPD REGION;

    PROC SORT DATA=FIG6AB OUT=FIG6;
    BY BENEFIT TIMEPD REGION;

    PROC SORT DATA=FIG7AB OUT=FIG7;
    BY BENEFIT TIMEPD REGION;
    RUN;




    %MACRO COMPARE(I=, TITL=);


    DATA CFIG&I;                    *FROM CONUS. LLU 10/8/04;

      SET CFIG&I.Q1
          CFIG&I.Q2
          CFIG&I.Q3
          CFIG&I.Q4
          ;
    RUN;


    PROC SORT DATA=FIG&I;
    BY BENEFIT TIMEPD REGION;
    RUN;

    PROC SORT DATA=CFIG&I;
    BY BENEFIT TIMEPD REGION;
    RUN;

    DATA COMBFIG&I;
       MERGE CFIG&I.(IN=F1) FIG&I(IN=F2);
    BY BENEFIT TIMEPD REGION;


    IF F1 AND F2;

    FIG = &I;

    IF FIG <=4 THEN DO;
       SCORE2=COL2;
       SIG2=COL3;
    END;

    ELSE IF FIG >4 THEN DO;
       IF COL2 >= 0 THEN SCORE2=COL2;
       ELSE IF COL4 >0 THEN SCORE2=COL4;

       IF COL6 >= .Z THEN SIG2=COL6;
       ELSE IF COL7>=.Z THEN SIG2=COL7;
    END;
```

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```
   SCOREDIF=SCORE2-SCORE;
   SIGDIF=SIG2-SIG;


IF ABS(SCOREDIF)>.015 OR SIGDIF>0 THEN FLAG=1;
ELSE FLAG=0;

KEEP BENEFIT TIMEPD REGION SCORE SIG SCORE2 SIG2 SCOREDIF SIGDIF FLAG;

LABEL
FLAG="DIFF IN SCORES >0.015 OR/AND DIFF IN SIG >0"
SCORE="SCORES FROM CONUS"
SCORE2="SCORES FROM CONSUMER WATCH"
SIG="SIG FROM CONUS"
SIG2="SIG FROM CONSUMER WATCH"
;


TITLE  "  ";
TITLE2 "*********************************************************";
TITLE3 "CONSUMER WATCH, &AREA ";

PROC PRINT L NOOBS;
TITLE4 "Compare &TITL.";
RUN;


%MEND COMPARE;


%COMPARE(I=1, TITL=Health Care Rating);
%COMPARE(I=2, TITL=Health Plan Rating);
%COMPARE(I=3, TITL=Personal Provider Rating);
%COMPARE(I=4, TITL=Specialist Rating);

%COMPARE(I=5, TITL=Access composites);

%COMPARE(I=6, TITL=Office composites);
%COMPARE(I=7, TITL=Claims/Service composites);



%MEND RUNCW;
```

APPENDIX I

SAS CODE FOR STATISTICAL AND WEB SPECIFICATIONS FOR THE 2008 TRICARE PURCHASED CARE BENEFICIARY REPORTS - QUARTERS I-IV

```
      ******************************************************************************
      *
      *  PROJECT:  DoD - Quarterly Adult Report Cards
      *  PROGRAM:  STEP1Q.SAS
      *  PURPOSE:  Create Dummy and Recode Variables used in Adult Report Card
      *                      Create a Female dummy variable
      *                      Create an Education dummy variable
      *                      Create 15 region dummies combining regions.
      *                              7 & 8 into region 8. That is, there
      *                              isn't a region 7 dummy.
      *                      Create 7 age dummy variables.
      *
      *            We require the most desired code to be the highest value.
      *            Recode the dependent variables into:
      *                      1 - the least desirable value
      *                      2 - the 2nd least desirable value
      *                      3 - the most desirable value
      *                      . - missing
      *
      *            Create 7 variables GROUP1 - GROUP7
      *                      IF (XINS_COV IN (1,2,6) AND H09004>=2) THEN GROUP1 = 1
      *                      IF (XENR_PCM IN (1,2,6) AND H09004>=2) THEN GROUP2 = 1
      *                      IF (XENR_PCM = 3,7      AND H09004>=2) THEN GROUP3 = 1
      *                      IF XINS_COV IN (3)                     THEN GROUP4 = 1
      *                              /*JSO 08/24/2006, Deleted 4,5*/
      *                      IF XBNFGRP = 1                         THEN GROUP5 = 1
      *                      IF XBNFGRP = 2                         THEN GROUP6 = 1
      *                      IF XBNFGRP IN (3,4)                    THEN GROUP7 = 1
      *                      GROUP8 is output for all beneficiaries
      *
      *  MODIFIED: 1) February 2001 By Keith Rathbun, Update for quarterly
      *               adult report cards.  Removed permanent dataset ENTIRE.SD2.
      *            2) August 2001 By Keith Rathbun, Updated DSN and LIBNAME
      *               for 3rd quarter adult report cards.
      *            3) OCTOBER 2001 BY DANIELE BEAHM, Because there was no post-
      *               stratification done in Q3, changed all references of the
      *               POSTSTR variable to ADJ_CELL
      *            4) JANUARY 2002 BY DANIELE BEAHM, Modified group3 to include
      *               XENR_PCM
      *            5) April 2002 By Mike Scott, Updated variable names for 2002
      *               survey.
      *            6) July 2002 By Mike Scott: See Note #2.  Replaced variable
      *               S02S01 with H04075 (new health status variable), deleted
      *               code to recode S02S01 to H00077, and changed H00077/R00077
      *               rename/recode to H04075/R04075 rename/recode.  The Hispanic/
      *               Latino variable is not present.
      *            7) January 2003 By Mike Scott, Changed ADJ_CELL to COM_SAMP.
      *            8) March 2003 By Mike Scott, Updated variable names for 2003
      *               survey.
      *            9) June 2003 By Mike Scott, Updated for Q2 2003.
      *            10) July 2003 By Mike Scott, Changed COM_SAMP to ADJ_CELL.
      *            11) October 2003 By Mike Scott, Updated for Q3 2003.
      *            12) January 2004 By Mike Scott, Updated for Q4 2003, and changed
      *               DAGEQY to FIELDAGE.
      *            13) March 2004 By Mike Scott, Updated for Q1 2004.
      *            14) April 2004 By Keith Rathbun, Removed reverse coding for
      *               H04031.  2004 survey question wording is 'Within 15 minutes'
      *               instead of "More than 15 Minutes".  Added service affiliation
      *               variables so only one version of this program is needed to
      *               handle the consumer watch processing.
      *            15) June 2004 by Regina Gramss, Updated for Q2 2004.
      *             16) Sept 2004 by Regina Gramss, changed XRegion to xtenxreg, updated for Q3
2004.
      *            17) Jan 2005 by Regina Gramss, changed XTENXREG to XSERVREG to include
      *               service affiliation.  Regions have been changed from 4 categories to 16.
      *            18) Apr 2005 by Regina Gramss, updated field names for 2005 data.
      *            19) Jul 2005 by Regina Gramss, updated for Q2 2005
      *            20) Oct 2005 by Regina Gramss, updated for Q3 2005
      *            21) Dec 2005 by Regina Gramss, updated for Q4 2005
      *            22) March 21, 2006 by Keith Rathbun, updated variable names
```

```
*                 for Q2 FY 2006.  Changed references to ADJ_CELL to be STRATUM.
*           23) July 12, 2006 by Justin Oh, updated for Q3 FY 2006
*           24) Aug 22, 2006 by Justin Oh, changed overseas to 3 regions.
*               Regions have been changed from 16 categories to 24.
*               Added XOCONUS to the Keep statement for Overseas classifications.
*               Changed XSERVREG for Overseas (Europe,Pacific,Latin America).
*               Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
*                       IF XINS_COV IN (3)     THEN GROUP4 = 1
*               Since only XINS_COV IN (1,2,3,6) is kept, (4,5) not needed.
*           25) Oct 03, 2006 by Justin Oh, changed input data HCS063_1 to HCS064_1
*               for Q4FY2006 reports.
*           26) Apr 05, 2007 by Justin Oh, Added %LET BCHTYPE to select BCH types
*               Benchmark OR PurchasedBenchmark.
*           27) Apr 05, 2007 by Justin Oh, Added changes to select RC types
*               ReportCards OR PurchasedReportCards.
*           28) Apr 26, 2007 by Justin Oh, Added codes, variables for new
*               reservists logic.
*           29) May 15, 2007 by Justin Oh, Changed XINS_COV to NXNS_COV to assign
*               Groups 1,3, and 4 for new reservists logic.
*           30) Jul 30, 2007 by Justin Oh, Added added DBENCAT conditions to assign
*               Groups All, 4, 5, and 6.
*           31) Oct 02, 2007 by Justin Oh, changed input data HCS073_1 to HCS074_1
*               for Q4FY2007 reports.
*           32) January 10, 2008 by Keith Rathbun, updated variable names
*               for Q1 FY 2008.
*           33) Apr 11, 2008 by Justin Oh, changed input data HCS081_1 to HCS082_1
*               for Q2FY2008 reports.
*           34) June 13, 2008 by Keith Rathbun, changed input data HCS082_1 to HCS083_1
*               for Q3FY2008 reports.
*           35) Jan 16, 2009 by Mike Rudacille, changed CONUS variable to USA
*           36) Jan 21, 2009 by Mike Rudacille, changed 2009 questionnaire variables
*               applicable to both V3 and V4 from V3 names to V4 names
*           37) March 11, 2009 by Keith Rathbun, changed input data HCS091_1 to HCS092_1
*               for Q2FY2009 reports.
*           38) April 6, 2009 by Mike Rudacille, changed variable names to reflect
*               modifications to beneficiary reports necessary for V4
*           39) June 22, 2009 By Keith Rathbun, Change weight variable from
*               FWRWT_V4 back to FWRWT.  Changed input data HCS092_1 to HCS093_1
*               for Q3FY2009 reports.
*           40) Sept 30, 2009 By Mike Rudacille, Changed input data HCS093_1 to HCS094_1
*               for Q4FY2009 reports.
*
*   INPUTS:   1) HCSyyq_1 - DoD Quarterly HCS Database
*
*   OUTPUTS:  1) GROUP1-8.sas7bdat - DoD Quarterly GROUP files as defined above
*
*   INCLUDES: 1) CONVERT.SAS - Convert item responses to proportional
*                              values for consistency w/ TOPS
*
*   NOTES:    1) Groups 1-3 modified 10/09/2000
*
*             2) In Q1_2002, S02S01 was renamed and recoded to H00077 (health
*                status variable for 2000).  H02077 was the Hispanic/Latino
*                variable.  In Q2_2002, H02077 is health status, and H02079
*                is the Hispanic/Latino variable.  To make the Quarter 2 data
*                file (HSC022_1.sd2) more consistent with the Quarter 1 file,
*                the health status variable which was H02077 is now H04075,
*                and the Hispanic/Latino variable which was H02079 is now
*                H02077.
*
****************************************************************************;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
%LET RCTYPE = PurchasedReportCards;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR NOOVP COMPRESS=YES;
LIBNAME OUT       "DATA";
LIBNAME IN1       "..\..\..\..\Data\AFinal";
LIBNAME LIBRARY  "..\..\..\..\Data\Afinal\fmtlib";

TITLE1   'Program Saved as: STEP1Q.SAS';

%LET WGT = FWRWT;
```

```
      proc format;
          value servreg  1 = 'North Army'
                         2 = 'North Air Force'
                         3 = 'North Navy'
                         4 = 'North Other'
                         5 = 'South Army'
                         6 = 'South Air Force'
                         7 = 'South Navy'
                         8 = 'South Other'
                         9 = 'West Army'
                        10 = 'West Air Force'
                        11 = 'West Navy'
                        12 = 'West Other'
                        13 = 'Europe Army'
                        14 = 'Europe Air Force'
                        15 = 'Europe Navy'
                        16 = 'Europe Other'
                        17 = 'Pacific Army'
                        18 = 'Pacific Air Force'
                        19 = 'Pacific Navy'
                        20 = 'Pacific Other'
                        21 = 'Latin America Army'
                        22 = 'Latin America Air Force'
                        23 = 'Latin America Navy'
                        24 = 'Latin America Other';


      DATA ENTIRE;
         SET IN1.HCS094_1(KEEP=
                     MPRID
                     FIELDAGE   /*MJS 01/26/04*/
                     XTNEXREG
                     SERVAFF    /*KRR 04/09/04*/
                     DBENCAT    /*JSO 04/26/2007, added for reservists logic*/
                     USA
                     ENBGSMPL
                     SREDA
                     XSEXA
                     XBNFGRP
                     STRATUM    /*KRR 04/03/2006, changed from ADJ_CELL*/
                     XINS_COV
                     XENR_PCM
                     XOCONUS    /*JSO 08/24/2006, Overseas Region Indicator*/
                     &WGT.
                     /* Getting Needed Care */
                     H09033
                     H09029
                     /* Getting Care Quickly */
                     H09007
                     H09010
                     /* How Well Doctors Communicate */
                     H09021
                     H09022
                     H09023
                     H09024
                     /* Customer Service */
                     H09040
                     H09041
                     /* Claims Processing */
                     H09045
                     H09046  /*****************************/
                     H09063  /* Health Status             */
                     H09018  /* Health Care Rating        */
                     H09047  /* Health Plan Rating        */
                     H09027  /* Personal Doctor Rating    */
                     H09031  /* Specialist Rating         */
                     H09003   /* Health Plan Used              *//*JSO 04/26/2007, added for
reservists logic*/
                     H09004  /* How Long in Health Plan   */
                             /*****************************/
                   );
          FORMAT _ALL_;
          IF SERVAFF='A' THEN XSERVAFF=1;              *Army;
            ELSE IF SERVAFF='F' THEN XSERVAFF=2;       *Air Force;
            ELSE IF SERVAFF='N' THEN XSERVAFF=3;       *Navy;
```

```
              ELSE XSERVAFF=4;                              *Other;

        IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

        IF XTNEXREG = . THEN DELETE;  /* RSG 02/2005 USE CACSMPL TO DELETE MISSING FIELDS*/

        IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

        NXNS_COV = XINS_COV;                  /*JSO 04/26/2007 added for reservists logic*/
                                              /*JSO   07/30/2007,   added   DBENCAT,   NXNS_COV
conditions*/
        IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
        IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
           NXNS_COV = 3;
           XENR_PCM = .;
        END;
                        /* Note:  use tmp_cell in step2q.sas */
        LENGTH TMP_CELL XSERVREG 8;
        TMP_CELL = STRATUM; /*KRR 04/03/2006, changed from ADJ_CELL*/

        IF XTNEXREG = 1 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 1;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
           ELSE XSERVREG = 4;
        END;

        IF XTNEXREG = 2 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 5;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
           ELSE XSERVREG = 8;
        END;

        IF XTNEXREG = 3 THEN DO;
           IF XSERVAFF = 1 THEN XSERVREG = 9;
           ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
           ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
           ELSE XSERVREG = 12;
        END;

        IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
           IF XOCONUS = 1 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 13;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 14;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 15;
              ELSE                     XSERVREG = 16;
           END;
           IF XOCONUS = 2 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 17;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 18;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 19;
              ELSE                     XSERVREG = 20;
           END;
           IF XOCONUS = 3 THEN DO;
              IF      XSERVAFF = 1 THEN XSERVREG = 21;
              ELSE IF XSERVAFF = 2 THEN XSERVREG = 22;
              ELSE IF XSERVAFF = 3 THEN XSERVREG = 23;
              ELSE                     XSERVREG = 24;
           END;
        END;

   RUN;

   ****************************************************************************
   * Create AGE, FEMALE and GROUP (Beneficiary/Enrollment)
   * subsets. Create the region dummies.  Recode region 7 to region 8.
   ****************************************************************************;
   DATA ENTIRE;
      SET ENTIRE;
      LENGTH DEFAULT = 4;
      IF FIELDAGE NE "  " THEN DO;    /*MJS 01/26/04*/
         AGE1824=0;
         AGE2534=0;
```

```
          AGE3544=0;
          AGE4554=0;
          AGE5564=0;
          AGE6574=0;
          AGE75UP=0;
          IF      ( '018' <= FIELDAGE <= '024' ) THEN AGE1824=1;    /*MJS 01/26/04*/
          ELSE IF ( '025' <= FIELDAGE <= '034' ) THEN AGE2534=1;
          ELSE IF ( '035' <= FIELDAGE <= '044' ) THEN AGE3544=1;
          ELSE IF ( '045' <= FIELDAGE <= '054' ) THEN AGE4554=1;
          ELSE IF ( '055' <= FIELDAGE <= '064' ) THEN AGE5564=1;
          ELSE IF ( '065' <= FIELDAGE <= '074' ) THEN AGE6574=1;
          ELSE IF (         FIELDAGE  > '074' ) THEN AGE75UP=1;
       END;

       **************************************************************************
       * Create the FEMALE dummy variable.
       **************************************************************************;
       IF XSEXA = 2 THEN
          FEMALE = 1;
       ELSE
          FEMALE = 0;


       **************************************************************************
       * Create the beneficiary group/enrollment group subsets.
       **************************************************************************;
       GROUP1 = 0;
       GROUP2 = 0;
       GROUP3 = 0;
       GROUP4 = 0;
       GROUP5 = 0;
       GROUP6 = 0;
       GROUP7 = 0;
       GROUP8 = 1;      * EVERYONE;

       IF (NXNS_COV IN (1,2,6)  AND H09004>=2) THEN GROUP1 = 1;
       IF (XENR_PCM IN (1,2,6)  AND H09004>=2) THEN GROUP2 = 1;
       /* JSO 04/05/2007 conditions to run RC type */
       IF "&RCTYPE" = 'ReportCards' AND (XENR_PCM IN (3,7) AND H09004>=2) THEN GROUP3 = 1;
       ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND ((XENR_PCM IN (3,7) AND H09004>=2) OR
   NXNS_COV IN (3,9)) THEN GROUP3 = 1;
       IF NXNS_COV IN   (3,9)        THEN  GROUP4 = 1;  /*JSO 08/24/2006, Deleted 4,5*//*JSO
   07/30/2007, Added 9*/
       IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN GROUP5 = 1;
                                           /*JSO 07/30/2007, added DBENCAT conditions*/
       IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN GROUP6 = 1;
                                           /*JSO 07/30/2007, added DBENCAT conditions*/
       IF XBNFGRP IN (3,4)      THEN GROUP7 = 1;

       **************************************************************************
       * Recode variables with Never, Sometimes, Usually and Always:
       *    Recode Never & Sometimes (1 & 2) to 1.
       *    Recode Usually (3) to 2.
       *    Recode Always (4) to 3.
       **************************************************************************;

       IF H09007 = 1      THEN R09007 = 1;
       ELSE IF H09007 = 2 THEN R09007 = 1;
       ELSE IF H09007 = 3 THEN R09007 = 2;
       ELSE IF H09007 = 4 THEN R09007 = 3;
       ELSE IF H09007 < 0 THEN R09007 = .;

       IF H09010 = 1      THEN R09010 = 1;
       ELSE IF H09010 = 2 THEN R09010 = 1;
       ELSE IF H09010 = 3 THEN R09010 = 2;
       ELSE IF H09010 = 4 THEN R09010 = 3;
       ELSE IF H09010 < 0 THEN R09010 = .;

       IF H09021 = 1      THEN R09021 = 1;
       ELSE IF H09021 = 2 THEN R09021 = 1;
       ELSE IF H09021 = 3 THEN R09021 = 2;
       ELSE IF H09021 = 4 THEN R09021 = 3;
       ELSE IF H09021 < 0 THEN R09021 = .;

       IF H09022 = 1      THEN R09022 = 1;
```

```
ELSE IF H09022 = 2 THEN R09022 = 1;
ELSE IF H09022 = 3 THEN R09022 = 2;
ELSE IF H09022 = 4 THEN R09022 = 3;
ELSE IF H09022 < 0 THEN R09022 = .;

IF H09023 = 1     THEN R09023 = 1;
ELSE IF H09023 = 2 THEN R09023 = 1;
ELSE IF H09023 = 3 THEN R09023 = 2;
ELSE IF H09023 = 4 THEN R09023 = 3;
ELSE IF H09023 < 0 THEN R09023 = .;

IF H09024 = 1     THEN R09024 = 1;
ELSE IF H09024 = 2 THEN R09024 = 1;
ELSE IF H09024 = 3 THEN R09024 = 2;
ELSE IF H09024 = 4 THEN R09024 = 3;
ELSE IF H09024 < 0 THEN R09024 = .;

IF H09029 = 1     THEN R09029 = 1;
ELSE IF H09029 = 2 THEN R09029 = 1;
ELSE IF H09029 = 3 THEN R09029 = 2;
ELSE IF H09029 = 4 THEN R09029 = 3;
ELSE IF H09029 < 0 THEN R09029 = .;

IF H09033 = 1     THEN R09033 = 1;
ELSE IF H09033 = 2 THEN R09033 = 1;
ELSE IF H09033 = 3 THEN R09033 = 2;
ELSE IF H09033 = 4 THEN R09033 = 3;
ELSE IF H09033 < 0 THEN R09033 = .;

IF H09040 = 1     THEN R09040 = 1;
ELSE IF H09040 = 2 THEN R09040 = 1;
ELSE IF H09040 = 3 THEN R09040 = 2;
ELSE IF H09040 = 4 THEN R09040 = 3;
ELSE IF H09040 < 0 THEN R09040 = .;

IF H09041 = 1     THEN R09041 = 1;
ELSE IF H09041 = 2 THEN R09041 = 1;
ELSE IF H09041 = 3 THEN R09041 = 2;
ELSE IF H09041 = 4 THEN R09041 = 3;
ELSE IF H09041 < 0 THEN R09041 = .;

IF H09045 = 1     THEN R09045 = 1;
ELSE IF H09045 = 2 THEN R09045 = 1;
ELSE IF H09045 = 3 THEN R09045 = 2;
ELSE IF H09045 = 4 THEN R09045 = 3;
ELSE IF H09045 < 0 THEN R09045 = .;

IF H09046 = 1     THEN R09046 = 1;
ELSE IF H09046 = 2 THEN R09046 = 1;
ELSE IF H09046 = 3 THEN R09046 = 2;
ELSE IF H09046 = 4 THEN R09046 = 3;
ELSE IF H09046 < 0 THEN R09046 = .;

***************************************************************************
* Recode variables to one missing condition ".".
* This also renames all the "H0xxxx" to "R0xxxx".
***************************************************************************;
R09027 = H09027;  IF R09027 < 0 THEN R09027 = .;
R09031 = H09031;  IF R09031 < 0 THEN R09031 = .;
R09018 = H09018;  IF R09018 < 0 THEN R09018 = .;
R09047 = H09047;  IF R09047 < 0 THEN R09047 = .;
R09063 = H09063;  IF R09063 < 0 THEN R09063 = .;

***************************************************************************
* Create region and service affiliation dummies.
***************************************************************************;
IF XSERVREG NE . THEN DO;  /*JSO 08/24/2006, Changed 16 to 24*/
   ARRAY REGDUMS (24) REG01 REG02 REG03 REG04 REG05 REG06
                      REG07 REG08 REG09 REG10 REG11 REG12
                      REG13 REG14 REG15 REG16 REG17 REG18
                      REG19 REG20 REG21 REG22 REG23 REG24;
   DO I = 1 TO 24;
      REGDUMS(I)=0;
   END;
```

```
        IF       XSERVREG= 1  THEN REG01  =1;
        ELSE IF  XSERVREG= 2  THEN REG02  =1;
        ELSE IF  XSERVREG= 3  THEN REG03  =1;
        ELSE IF  XSERVREG= 4  THEN REG04  =1;
        ELSE IF  XSERVREG= 5  THEN REG05  =1;
        ELSE IF  XSERVREG= 6  THEN REG06  =1;
        ELSE IF  XSERVREG= 7  THEN REG07  =1;
        ELSE IF  XSERVREG= 8  THEN REG08  =1;
        ELSE IF  XSERVREG= 9  THEN REG09  =1;
        ELSE IF  XSERVREG= 10 THEN REG10  =1;
        ELSE IF  XSERVREG= 11 THEN REG11  =1;
        ELSE IF  XSERVREG= 12 THEN REG12  =1;
        ELSE IF  XSERVREG= 13 THEN REG13  =1;
        ELSE IF  XSERVREG= 14 THEN REG14  =1;
        ELSE IF  XSERVREG= 15 THEN REG15  =1;
        ELSE IF  XSERVREG= 16 THEN REG16  =1;
        ELSE IF  XSERVREG= 17 THEN REG17  =1;
        ELSE IF  XSERVREG= 18 THEN REG18  =1;
        ELSE IF  XSERVREG= 19 THEN REG19  =1;
        ELSE IF  XSERVREG= 20 THEN REG20  =1;
        ELSE IF  XSERVREG= 21 THEN REG21  =1;
        ELSE IF  XSERVREG= 22 THEN REG22  =1;
        ELSE IF  XSERVREG= 23 THEN REG23  =1;
        ELSE IF  XSERVREG= 24 THEN REG24  =1;

        ARRAY SRVDUMS (4) SRV01 SRV02 SRV03 SRV04;
        DO I = 1 TO 4;    /*Needed for consumer watch ONLY */
            SRVDUMS(I)=0;
        END;
        IF       XSERVAFF = 1 THEN SRV01 = 1;
        ELSE IF  XSERVAFF = 2 THEN SRV02 = 1;
        ELSE IF  XSERVAFF = 3 THEN SRV03 = 1;
        ELSE IF  XSERVAFF = 4 THEN SRV04 = 1;

    END;

RUN;

********************************************************************************
* Recode item responses to proportional values using CONVERT.SAS.
********************************************************************************;
%INCLUDE "CONVERT.SAS";

%CONT2(DSN=ENTIRE, NUM=4,  Y=R09018 R09047 R09027 R09031);
%CONT3(DSN=ENTIRE, NUM=12, Y=R09007 R09010 R09029 R09033
                             R09021 R09022 R09023 R09024
                             R09040 R09041 R09045 R09046);

********************************************************************************
* Sort the main file to reorder it by MPRID.
********************************************************************************;
PROC SORT DATA=ENTIRE; BY MPRID; RUN;

********************************************************************************
* Print the contents of ENTIRE dataset.
********************************************************************************;
PROC CONTENTS DATA=ENTIRE;
   TITLE2 'Contents of ENTIRE';
RUN;


********************************************************************************
* Print some of the recoded records.
********************************************************************************;
PROC PRINT DATA=ENTIRE(OBS=60);
   TITLE2 'Print of AGE and SEX dummies';
   VAR MPRID
       FIELDAGE   /*MJS 01/26/04*/
       XTNEXREG
       XSERVAFF
       XSERVREG
       USA
       ENBGSMPL
       XSEXA
```

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```
            STRATUM   /*KRR 04/03/2006 Changed from ADJ_CELL*/
            XINS_COV
            NXNS_COV  /*JSO 04/26/2007, added for reservists logic*/
            DBENCAT   /*JSO 04/26/2007, added for reservists logic*/
            XENR_PCM
            &WGT.
         ;
   RUN;

   ****************************************************************************
   * Print some of the recoded records.
   ***************************************************************************;
   PROC PRINT DATA=ENTIRE(OBS=60);
      TITLE2 'Print of AGE and SEX dummies';
      VAR FIELDAGE   /*MJS 01/26/04*/
          AGE1824
          AGE2534
          AGE3544
          AGE4554
          AGE5564
          AGE6574
          AGE75UP

          XSEXA
          FEMALE

          ENBGSMPL
          XINS_COV
          NXNS_COV
          XENR_PCM
          XBNFGRP
          GROUP1
          GROUP2
          GROUP3
          GROUP4
          GROUP5
          GROUP6
          GROUP7
         ;
   RUN;


   PROC PRINT DATA=ENTIRE(OBS=60);
      TITLE2 'Print of recoded question variables';
      VAR H09007  R09007
          H09010  R09010
          H09021  R09021
          H09022  R09022
          H09023  R09023
          H09024  R09024
          H09029  R09029
          H09033  R09033
          H09040  R09040
          H09041  R09041
          H09045  R09045
          H09046  R09046
          H09018  R09018
          H09027  R09027
          H09031  R09031
          H09047  R09047
          H09063  R09063
         ;
   RUN;


   /*JSO 08/24/2006, Changed 16 to 24*/
   PROC PRINT DATA=ENTIRE(OBS=60);
      TITLE2 'Print of recoded REGION variables';
      VAR XSERVREG
          REG01
          REG02
          REG03
          REG04
          REG05
          REG06
```

```
            REG07
            REG08
            REG09
            REG10
            REG11
            REG12
            REG13
            REG14
            REG15
            REG16
            REG17
            REG18
            REG19
            REG20
            REG21
            REG22
            REG23
            REG24;
      RUN;


      PROC PRINT DATA=ENTIRE(OBS=60);
         TITLE2 'Print of recoded service affiliation variables';
         VAR XSERVREG
            XSERVAFF
            XOCONUS /*JSO 08/24/2006, Changed Overseas Regions*/
            SRV01
            SRV02
            SRV03
            SRV04
            ;
      RUN;

      ****************************************************************************
      * Create the 7 subgroups for processing by STEP2.SAS.
      ****************************************************************************;
      DATA OUT.GROUP1
           OUT.GROUP2
           OUT.GROUP3
           OUT.GROUP4
           OUT.GROUP5
           OUT.GROUP6
           OUT.GROUP7
           OUT.GROUP8;

           SET ENTIRE;

           DROP
              H09007
              H09010
              H09021
              H09022
              H09023
              H09024
              H09029
              H09033
              H09040
              H09041
              H09045
              H09046
              H09018
              H09027
              H09031
              H09047
              H09063
              ;
           IF GROUP1 = 1 THEN OUTPUT OUT.GROUP1;
           IF GROUP2 = 1 THEN OUTPUT OUT.GROUP2;
           IF GROUP3 = 1 THEN OUTPUT OUT.GROUP3;
           IF GROUP4 = 1 THEN OUTPUT OUT.GROUP4;
           IF GROUP5 = 1 THEN OUTPUT OUT.GROUP5;
           IF GROUP6 = 1 THEN OUTPUT OUT.GROUP6;
           IF GROUP7 = 1 THEN OUTPUT OUT.GROUP7;
           OUTPUT OUT.GROUP8;
```

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```
RUN;
```

```
*******************************************************************************
*
* PROGRAM:   CONVERT.SAS
* TASK:      DOD HEALTH CARE SURVEY ANALYSIS (8687-330)
* PURPOSE:   CONVERT ITEM RESPONSES TO PROPORTIONAL VALUES FOR CONSISTENCY
*            WITH THE TOPS SURVEY.
* WRITTEN:   October 2000 BY ERIC SCHONE
*
* MODIFIED: October 2000 BY KEITH RATHBUN, Added PROLOG.  Also, added DSN
*            to argument lists.
*
* INPUTS:  1) User-specified SAS Dataset
*
* OUTPUTS: 1) User-specified SAS Dataset with recoded values
*
* NOTES:
*
* 1) Arguments for the CONT1-CONT3 macros are as follows:
*    a) SAS dataset name (dsn)
*    b) Number of variables to be converted (num)
*    c) List of variables to be converted (y)
* 2) These macros assume that the response items have already been
*    converted/recoded to CAHPS scales.
*
*******************************************************************************
* CONT1 - Convert big problem, small problem, not a problem questions to
*         proportional values.
*******************************************************************************;
%macro cont1(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i = 1 to &num;
      if vars(i) ne . and vars(i) ne 3 then vars(i) = 0;
      if vars(i) = 3 then vars(i) = 1;
   end;
run;
%mend cont1;


*******************************************************************************
* CONT2 - Convert rating questions to proportional values.
*******************************************************************************;
%macro cont2(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) < 8 then vars(i) = 0;
      if vars(i) in (8,9,10) then vars(i) = 1;
   end;
run;
%mend cont2;


*******************************************************************************
* CONT3 - Convert Never, Sometimes, Usually, Always questions to
*         proportional values.
*******************************************************************************;
%macro cont3(dsn=, num=, y=);
data &dsn(drop=i);
   set &dsn;
   array vars &y;
   do i=1 to &num;
      if vars(i) ne . and vars(i) >= 2 then vars(i) = 2;
      vars(i) = vars(i) - 1;
   end;
run;
%mend cont3;
```

```
****************************************************************************
*
*   Project:  DoD - Quarterly Adult Report Cards
*   Program:  STEP2Q.SAS
*   Purpose:  Generate risk-adjusted CAHPS Scores for Adult Report Card.
*
*   Requires: Program STEP1Q.SAS must be run prior to running this program.
*
*   The adult report card contains a large number of risk-adjusted scores.
*   Some scores are calculated from responses to individual survey questions.
*   Composite scores are calculated by combining scores from individual
*   questions.  The scores then are compared with external civilian
*   benchmarks.  The programming tasks involved in building the report
*   card are:
*
*        1) Preparing data for analyses
*        2) Estimating risk adjustment models
*        3) Calculating risk-adjusted values and variances
*        4) Calculating benchmarks
*        5) Comparing risk-adjusted values to benchmarks
*           and hypothesis testing
*
*   Subgroup Definitions:
*   _____
*     Seven Subgroups           Definitions
*   _____
*   1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004>=2
*   2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004>=2
*   3. Enrollees w/civ PCM       XENR_PCM = 3        AND H09004>=2
*   4. Nonenrollees             XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
*   5. Active duty              XBNFGRP = 1
*   6. Active duty dependents   XBNFGRP = 2
*   7. Retirees and dependents  XBNFGRP IN (3,4)
*
*   Previous Program:  STEP1Q.SAS
*
*   Modified: 1) 04/10/02 By Mike Scott, Updated variable names for 2002
*                survey.
*             2) 07/11/02 By Mike Scott, Changed R00077 to R04075, since
*                H02077 (health status) is back and was recoded to R04075
*                in STEP1Q.
*             3) 03/21/03 By Mike Scott, Updated variable names for 2003
*                survey.
*             4) 03/24/04 By Mike Scott, Updated for 2004 survey.
*             5) 09/24/2004 By Regina Gramss, Updated to use XTNEXREG instead of XREGION
*                and to update for Q3 2004 data.
*             6) 01/25/2005 By Regina Gramss, Changed codes to use XSERVREG instead of
*                XTNEXREG to include service affiliation.
*             7) 04/2005 By Regina Gramss, Updated field names from 2004 to 2005
*             8) 07/2005 By Regina Gramss, Updated for Q2 2005
*             9) 10/2005 By Regina Gramss, Updated for Q3 2005
*            10) 12/2005 By Regina Gramss, Updated for Q4 2005
*            11) March 21, 2006 by Keith Rathbun, updated variable names
*                for Q2 FY 2006.
*            12) 07/2006 By Justin Oh, Updated for Q3 FY 2006
*            13) Aug 24, 2006 by Justin Oh, changed overseas to 3 regions.
*                Regions have been changed from 16 categories to 24.
*            14) April 7, 2009 by Mike Rudacille, changed variable names to reflect
*                modifications to beneficiary reports necessary for V4
*            15) June 22, 2009 By Keith Rathbun, Change weight variable from
*                FWRWT_V4 back to FWRWT.
*
****************************************************************************;
OPTIONS NOCENTER LS=132 PS=79 SOURCE NOOVP COMPRESS=YES;
LIBNAME IN1      "DATA";
LIBNAME OUT      "DATA";
LIBNAME OUT2     "DATA\ADULTHATFILES";
LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";
```

```
    /* RSG 02/2005 hard coded skelreg so data does not have to be copied from quarter to
quarter*/
    /* JSO 08/24/2006, Changed from 16 to 24 Regions */

    DATA SKELREG (COMPRESS=NO);
       INPUT XSERVREG;
       DATALINES;
          1
          2
          3
          4
          5
          6
          7
          8
          9
          10
          11
          12
          13
          14
          15
          16
          17
          18
          19
          20
          21
          22
          23
          24
    ;
    RUN;

    ****************************************************************************
    ****************************************************************************
    * Set GLOBAL parameters here.
    ****************************************************************************
    ****************************************************************************;

    ****************************************************************************
    * Set the number of Dependent variables to process.
    * One does not need to start at 1, but the max must be >= min.
    ****************************************************************************;
    %LET MIN_VAR =  1;
    %LET MAX_VAR = 16;

    ****************************************************************************
    * Set the number of subgroups to process.
    ****************************************************************************;
    %LET MIN_GRP = 1;
    %LET MAX_GRP = 8;

    ****************************************************************************
    * These are expected to remain the same for a particular dependent
    * variable run.
    ****************************************************************************;
    %LET WGT      = FWRWT;
    %LET IND_VAR1 = R09063;
    %LET IND_VAR2 =  ;  * FEMALE;
    %LET IND_VAR3 =  ;  * SREDHIGH;
    %LET DEBUGFLG = 0;  * Set to 1 if you want extra printout;


    %LET TITL1 = Prime Enrollees;
    %LET TITL2 = Enrollees w/military PCM;
    %LET TITL3 = Enrollees w/civilian PCM;
    %LET TITL4 = Nonenrollees;
    %LET TITL5 = Active Duty;
    %LET TITL6 = Active Duty Dependents;
    %LET TITL7 = Retirees and Dependents;
    %LET TITL8 = All Beneficiaries;
```

```
*****************************************************************************
* GETTING NEEDED CARE.
*****************************************************************************;
%LET DEPVAR1  = R09029;
%LET DEPVAR2  = R09033;


*****************************************************************************
* GETTING NEEDED CARE QUICKLY.
*****************************************************************************;
%LET DEPVAR3  = R09007;
%LET DEPVAR4  = R09010;


*****************************************************************************
* HOW WELL DOCTORS COMMUNICATE.
*****************************************************************************;
%LET DEPVAR5  = R09021;
%LET DEPVAR6  = R09022;
%LET DEPVAR7  = R09023;
%LET DEPVAR8  = R09024;


*****************************************************************************
* CUSTOMER SERVICE.
*****************************************************************************;
%LET DEPVAR9  = R09040;
%LET DEPVAR10 = R09041;


*****************************************************************************
* CLAIMS PROCESSING.
*****************************************************************************;
%LET DEPVAR11 = R09045;
%LET DEPVAR12 = R09046;


*****************************************************************************
* RATING ALL HEALTH CARE: 0 - 10.
*****************************************************************************;
%LET DEPVAR13 = R09018;


*****************************************************************************
* RATING OF HEALTH PLAN: 0 - 10.
*****************************************************************************;
%LET DEPVAR14 = R09047;


*****************************************************************************
* RATING OF PERSONAL DR: 0 - 10.
*****************************************************************************;
%LET DEPVAR15 = R09027;


*****************************************************************************
* SPECIALITY CARE: 0 - 10.
*****************************************************************************;
%LET DEPVAR16 = R09031;

%MACRO SCORE;
*************************************;
* use this macro for all groups;
* super region variables are to be used     ;
*************************************;
%PUT *************************************;
%PUT STARTING MACRO SCORE;
%PUT "GROUP     = " GROUP&IGRP;
%PUT "TITLE     = " &&DEPVAR&IVAR  &&TITL&IGRP;
%PUT "DEP_VAR  = " &&DEPVAR&IVAR;
%PUT "IND_VAR1 = " &IND_VAR1;
%PUT "IND_VAR2 = " &IND_VAR2;
%PUT "IND_VAR3 = " &IND_VAR3;
%PUT "WGT      = " &WGT;
%PUT *************************************;

*---------------------------------------------------;
* If the current group is 1 use the skeleton files;
* else used the previous groups output file;
* The mrgfile is added to by each subgroup;
*---------------------------------------------------;
%LET RMRGFILE = OUT.R_&&DEPVAR&IVAR;
```

```
%IF "&IGRP" = "1" %THEN %LET RMRGFILE = SKELREG;

* run regression using the region level variables;
* output a BETA file (1 record) and the subgroup;
* file with residuals attached (many records);
PROC REG DATA = GROUP&IGRP OUTEST=BETAS;
     TITLE2 "Regression Model for GROUP&igrp for regions";
     TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
     WEIGHT &WGT;
     %INCLUDE 'REGRSREG.INC';
     OUTPUT OUT = OUT2.H&IGRP&&DEPVAR&IVAR(KEEP=MPRID &WGT TMP_CELL
                      PRED&IGRP RESID&IGRP XSERVREG &&DEPVAR&IVAR)
              P = PRED&IGRP
              R = RESID&IGRP;

RUN;


* print of HCSDB file with the residuals and predicted values;
%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=OUT2.H&IGRP&&DEPVAR&IVAR (OBS=70);
         TITLE2 "OUT2.H&IGRP&&DEPVAR&IVAR:  file with predicted values and the RESID&IGRP";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
         VAR MPRID XSERVREG &&DEPVAR&IVAR RESID&IGRP PRED&IGRP;
    RUN;

    PROC PRINT DATA=BETAS;
         TITLE2 "BETAS:  file with coefficients";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


*----------------------------------------;
*----- get the standard err/variance ----;
*----------------------------------------;
%LET DEP = &&DEPVAR&IVAR;
%R_SUDAAN(OUT2.H&IGRP&&DEPVAR&IVAR);



* calculate prelim adjusted scores for the risk-adjusters;
* merge adjuster means with the adjuster coefficients;
* then sum their products. Finally add in the intercept;
 DATA ADJUST;
    SET MEANFILE;
    IF _N_ = 1 THEN SET BETAS(DROP = _TYPE_);
    %INCLUDE 'RISKARRY.INC';
    %INCLUDE 'RISKMEAN.INC';
    DO I = 1 TO DIM(COEFFS);
       IF COEFFS(I) = . THEN COEFFS(I) = 0;
       IF MEANS(I) = .  THEN MEANS(I)  = 0;
       ADJUST + ( COEFFS(I) * MEANS(I) );
    END;
    ADJUST = ADJUST + INTERCEPT;
 RUN;


* add the region coefficients to the adjusted value from above;
* output one record per region with the region;
* level adjusted scores;
DATA COEFFREG(KEEP=XSERVREG NEWADJST);
    SET ADJUST;
    %INCLUDE 'REGARRAY.INC';
    LENGTH NAME $8;
    DO I=1 TO DIM(REGRHS);
       CALL VNAME(REGRHS(I),NAME);
       XSERVREG=INPUT(SUBSTR(NAME,4,2),2.);
       IF REGRHS(I) = . THEN REGRHS(I) = 0;
       NEWADJST=ADJUST + REGRHS(I);
       OUTPUT;
    END;
RUN;
```

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```
* sum of wgts for each region;
PROC MEANS DATA=GROUP&IGRP NWAY NOPRINT ;
  CLASS XSERVREG;
  VAR    &WGT;
  OUTPUT OUT=REG_WGTS (DROP = _TYPE_ _FREQ_) N=REGCNT&IGRP SUM=REGWGT&IGRP;
RUN;


* merge the COEFFREG file with the region;
* adjusted scores to the region level total weight;
* merge by the region.  Creates a region level;
* file with the total sample weight of the region;
DATA COEFFREG;
      MERGE COEFFREG(IN=IN1)
            REG_WGTS(IN=IN2   KEEP=XSERVREG REGCNT&IGRP REGWGT&IGRP);
      BY XSERVREG;
      IF IN1;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
    PROC PRINT DATA=MEANFILE;
        TITLE2 'Print of MEANFILE';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=ADJUST;
        TITLE2 'Print of ADJUST';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
        TITLE2 'Print of COEFFREG: Region Adjusted Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=REG_WGTS;
        TITLE2 'Print of REG_WGTS: Region Area Sum of WGTS';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;

    PROC PRINT DATA=COEFFREG;
        TITLE2 'Print of COEFFREG: Regions Adjusted Scores - with sum of wgts and region';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
%END;


* Calculate region level adjusted scores from the;
* region level adjusted scores in COEFFREG;
PROC MEANS DATA=COEFFREG NWAY NOPRINT;
  WEIGHT REGWGT&IGRP;
  CLASS  XSERVREG;
  VAR    NEWADJST;
  OUTPUT OUT=REGFILE1 (DROP = _TYPE_ _FREQ_) MEAN=ADJ&IGRP;
RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=REGFILE1;
        TITLE2 'Print of REGFILE1: Region Scores';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

* merge the previous groups region results (if any);
* with the region level std errs and the region;
* level results from catchment results collapsed to region;
DATA OUT.R_&&DEPVAR&IVAR;
     MERGE &RMRGFILE(IN=INS)
           R&IGRP&&DEPVAR&IVAR
           REG_WGTS(KEEP = REGCNT&IGRP REGWGT&IGRP XSERVREG)
           REGFILE1(KEEP = ADJ&IGRP XSERVREG);
     BY XSERVREG;
```

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```
          DEPENDNT = "&&DEPVAR&IVAR";
          IF INS;
    RUN;


    * merge the previous groups regional results (if any);
    * with the region level std err and the region;
    * level results from the current group/dependent var;
    DATA OUT.R_&&DEPVAR&IVAR;
        MERGE OUT.R_&&DEPVAR&IVAR(IN=INS)
              R&IGRP&&DEPVAR&IVAR    /*KRR - removed perm dataset ref to OUT2 */
              REG_WGTS
              REGFILE1;
        BY XSERVREG;
        DEPENDNT = "&&DEPVAR&IVAR";
        IF INS;
    RUN;

    PROC PRINT DATA=OUT.R_&&DEPVAR&IVAR;
         TITLE2 "Print of XSERVREG variables in &&DEPVAR&IVAR";
         TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
    RUN;
    %MEND SCORE;

    %MACRO MAKE_INC;
    ***************************************;
    * creates include files for later Procs;
    * Needs to be run each time.  Called   ;
    * in the outer (beneficiary loop).     ;
    * I chose this method because it was   ;
    * clearer(to me at least).             ;
    * This macro needs to be run once per  ;
    * Dep var per subgroup.                ;
    ***************************************;


    * Drop records where the dependent var is missing;
    * Drop records with missing catchment or region values;
      DATA GROUP&IGRP;
          SET IN1.GROUP&IGRP;
          IF &&DEPVAR&IVAR NOT = .;
      RUN;

     DATA _NULL_;
          SET GROUP&IGRP END = EOF;
          IF &&DEPVAR&IVAR NOT = .;

          ARRAY AGECNT(7) 8 aCNT1 - aCNT7;
          RETAIN AGECNT 0;
          RETAIN CNT 0;
          ARRAY AGENAM(7)  $8 AGENAM1 - AGENAM7;
          ARRAY AGENAMX(7) $8 AGENAMX1 - AGENAMX7;
          RETAIN AGENAM;
          RETAIN AGENAMX;
          ARRAY REGCNT(24)  8 REGCNT01- REGCNT24; /*JSO 08/24/2006, Changed from 16 to 24*/
          RETAIN CATCNT 0;
          RETAIN REGCNT 0;

          * create a name array for the parent age dummies;
          IF _N_ = 1 THEN DO;
             AGENAM(1) = "AGE1824";
             AGENAM(2) = "AGE2534";
             AGENAM(3) = "AGE3544";
             AGENAM(4) = "AGE4554";
             AGENAM(5) = "AGE5564";
             AGENAM(6) = "AGE6574";
             AGENAM(7) = "AGE75UP";
          END;

          * total record count;
          CNT + 1;

          * count records in each age group;
          * we will use only age groups with more;
          * than 2 obs;
          IF AGE1824  = 1 THEN AGECNT(1) + 1;
```

```
       IF AGE2534  = 1 THEN AGECNT(2) + 1;
       IF AGE3544  = 1 THEN AGECNT(3) + 1;
       IF AGE4554  = 1 THEN AGECNT(4) + 1;
       IF AGE5564  = 1 THEN AGECNT(5) + 1;
       IF AGE6574  = 1 THEN AGECNT(6) + 1;
       IF AGE75UP  = 1 THEN AGECNT(7) + 1;

     * count records in each XSERVREG group;
     * we will only use XSERVREGs with more than than 2 obs;
     * I am using the region value as the subscript;
     * to make the code simpler and more readable;
     IF 1<= XSERVREG <=24  THEN DO; /*JSO 08/24/2006, Changed from 16 to 24*/
        REGCNT(XSERVREG) = REGCNT(XSERVREG) + 1;
     END;

     IF EOF THEN GOTO ENDFILE;
     RETURN;

ENDFILE:
     * create a title common to all procs in the current group;
     TITLE  " &&DEPVAR&IVAR  &&TITL&IGRP";

     * display counts in the log;
     %IF &DEBUGFLG > 0  %THEN %DO;
        PUT ' ';
        PUT 'AT EOF:';
        PUT "TOTAL CNT = "    CNT;
        PUT AGENAM(1) "  " AGECNT(1)=;
        PUT AGENAM(2) "  " AGECNT(2)=;
        PUT AGENAM(3) "  " AGECNT(3)=;
        PUT AGENAM(4) "  " AGECNT(4)=;
        PUT AGENAM(5) "  " AGECNT(5)=;
        PUT AGENAM(6) "  " AGECNT(6)=;
        PUT AGENAM(7) "  " AGECNT(7)=;
        PUT " ";

        DO I = 1 TO 24;  /*JSO 08/24/2006, Changed from 16 to 24*/
           IF(REGCNT(I) > 0) THEN DO;
               PUT  'REG' I Z2. REGCNT(I) 6.;
           END;
        END;
        PUT ' ';


      %END;     *** of debug test;

     *---------------------------------------------------------;
     * This include is for the regression using regions;
     * in this case we drop the last XSERVREG;
     FILE 'REGRSREG.INC';
     PUT @6  "MODEL  &&DEPVAR&IVAR = ";
     IF "&IND_VAR1" NE "" THEN PUT @12 "&IND_VAR1"; /* KRR - only output when present */
     IF "&IND_VAR2" NE "" THEN PUT @12 "&IND_VAR2"; /* KRR - only output when present */
     IF "&IND_VAR3" NE "" THEN PUT @12 "&IND_VAR3"; /* KRR - only output when present */

     CNT2 = 0;
     * setup an array of those age groups that have > 1 obs;
     DO I = 1 TO 7;
        IF AGECNT(I) > 1 THEN DO;
           CNT2 + 1;
           AGENAMX(CNT2) = AGENAM(I);
        END;
     END;

     * now drop the last category to create;
     * an omitted category which is required;
     * to solve the regression properly;
     DO I = 1 TO CNT2-1;
        PUT @12 AGENAMX(I);
     END;

     * ditto for the catchment areas with > 0 obs;
     * in this case we drop the the first USABLE category;
     * this is not consistent with the catchment area code;
```

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```
* but this is the method that Portia used;
FIRST = 0;          /*JSO 08/24/2006, Changed from 16 to 24*/
DO I = 1 TO 24;     * skip the 1st region with 1+ obs;
   IF REGCNT(I) > 0 THEN DO;
       IF FIRST = 1 THEN PUT @12 'REG' I Z2.;
       FIRST = 1;
   END;
END;
PUT @11 ';';


*----------------------------------------------------------;
* now create the complete var statement;
* for the Proc MEANS used to replace the;
* independent variables missing values;
* we assume the age groups will always be used;
* These are also called the RISK FACTORS;
FILE 'RISKVARS.INC';
PUT @10  "VAR";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

* not all the other dependent variables will be used;
* only write them out if they are not null;
CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*----------------------------------------------------------;
* create an ARRAY statement of the desired risk factors;
* called adjusters in the specs and in the code;
FILE 'RISKARRY.INC';
PUT @10  "ARRAY COEFFS(*) $8";
DO I = 1 TO CNT2;
   PUT @12 AGENAMX(I);
END;

CNT3 = 0;
IF "&IND_VAR1" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR1";
END;

IF "&IND_VAR2" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR2";
END;

IF "&IND_VAR3" NE "" THEN DO;
    CNT3 + 1;
    PUT @12 "&IND_VAR3";
END;
PUT @11 ';';


*----------------------------------------------------------;
* create an ARRAY of mean names for the output;
* from a proc MEANS of the Risk Factors in RISKARRY;
FILE 'RISKMEAN.INC';
```

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```
      IND_CNT = CNT2 + CNT3;
      PUT @6 "ARRAY MEANS(*) $8";
      DO I = 1 TO IND_CNT;
         PUT @12 "MEAN" I Z2.;
      END;
      PUT @11 ';';

 *   --------------------------------------------------;
 *   create the equivalent of the following statement;
 *   OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN=MEAN1-MEAN&MEAN_CNT;
      FILE 'MEANFILE.INC';
      PUT @6 "OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN = ";
      DO I = 1 TO IND_CNT;
         PUT @12 "MEAN" I Z2.;
      END;
      PUT @11 ';';

      *----------------------------------------------------------;
      * create a super region area array;
      * with at least ONE obs;
      FILE 'REGARRAY.INC';
      PUT @10  "ARRAY REGRHS(*) $8";
      DO I = 1 TO 24;                  /*JSO 08/24/2006, Changed from 16 to 24*/
         IF REGCNT(I) > 0 THEN DO; *** ems 7/12/00 changed "> 1" to "> 0";
             PUT  @16 'REG' I Z2.;
         END;
      END;
      PUT @11 ';';
 RUN;

 * Create the means of the adjuster variables;
 * They will be used to replace missing adjuster variables;
 * calculate weighted means;
 PROC MEANS DATA=GROUP&IGRP;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;


%IF &DEBUGFLG > 0  %THEN %DO;
   PROC PRINT DATA=MEANFILE;
        TITLE2 "Print of MEANFILE for Risk Adjuster variables";
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;

DATA GROUP&IGRP;
     SET GROUP&IGRP;
     IF _N_ = 1 THEN SET MEANFILE;
     %INCLUDE 'RISKARRY.INC';
     %INCLUDE 'RISKMEAN.INC';
     DO I = 1 TO DIM(COEFFS);
        IF COEFFS(I) = . THEN DO;
           COEFFS(I) = MEANS(I);
        END;
     END;
RUN;
/* PROC MEANS DATA=out.group8;
   WEIGHT &WGT;
   %INCLUDE 'RISKVARS.INC';
   %INCLUDE 'MEANFILE.INC';
 RUN;*/
%MEND MAKE_INC;

%MACRO R_SUDAAN(INFILE);
*****************************************************
* Use this macro to create standard err (variances)
* for XSERVREGs.
***************************************************;
%PUT ***************************************;
%PUT STARTING MACRO R_SUDAAN (XSERVREG);
%PUT ***************************************;
```

```
DATA &INFILE;
   SET &INFILE;
   IF 1<= XSERVREG <= 24;  /*JSO 08/24/2006, Changed from 16 to 24*/
RUN;


* Sort data by TMP_CELL;
PROC SORT DATA=&INFILE;
   BY TMP_CELL;
RUN;

%IF &DEBUGFLG > 5  %THEN %DO;
   PROC PRINT DATA=&INFILE(OBS=5);
        TITLE2 'Print of the input file to SUDAAN (XSERVREG)';
        TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;
%END;


* Calculate values for super regions;
PROC DESCRIPT DATA=&INFILE DESIGN=STRWR NOPRINT;
   WEIGHT &WGT;
   SETENV DECWIDTH=4;
   NEST TMP_CELL / missunit;
   VAR RESID&IGRP;
   TABLES XSERVREG;
   SUBGROUP XSERVREG;
   LEVELS 24;   /*JSO 08/24/2006, Changed from 16 to 24*/
   OUTPUT  SEMEAN
         / REPLACE TABLECELL=DEFAULT
           FILENAME=RS&DEP;
   RUN;

   DATA R&IGRP&&DEPVAR&IVAR;
        SET RS&DEP;
        KEEP XSERVREG SEMEAN;
        IF SEMEAN NE .;
        RENAME SEMEAN = SEMEAN&IGRP;
   RUN;


   PROC PRINT DATA=R&IGRP&&DEPVAR&IVAR;
      TITLE2 "Print XSERVREG DESCRIPT DATA=R&IGRP&&DEPVAR&IVAR";
      TITLE3 "Beneficiary group&igrp:  &&TITL&IGRP";
   RUN;

%MEND  R_SUDAAN;


%**********************************;
%*  call the macros;
%**********************************;

%MACRO MAINLOOP(MIN_VAR,MAX_VAR,MIN_GRP,MAX_GRP);
    %* loop over the set of dependent variables;
       %DO IVAR = &MIN_VAR %TO &MAX_VAR;
          %DO IGRP = &MIN_GRP %TO &MAX_GRP;
             %MAKE_INC;
             %SCORE;
          %END;
       %END;

%MEND;

%MAINLOOP(&MIN_VAR,&MAX_VAR,&MIN_GRP,&MAX_GRP);
```

I.1.D   Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\REGRSREG.INC - INCLUDE FILE1 IN STEP2Q.SAS.

```
MODEL  R09031 =
       R09063
       AGE1824
       AGE2534
       AGE3544
       AGE4554
       REG02
       REG03
       REG04
       REG05
       REG06
       REG07
       REG08
       REG09
       REG10
       REG11
       REG12
       REG13
       REG14
       REG15
       REG16
       REG17
       REG18
       REG19
       REG20
       REG21
       REG23
       REG24
       ;
```

I.1.E **Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\RISKARRY.INC - INCLUDE FILE2 IN STEP2Q.SAS.**

```
ARRAY COEFFS(*) $8
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
;
```

**I.1.F   Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\RISKMEAN.INC - INCLUDE
FILE3 IN STEP2Q.SAS.**

```
ARRAY MEANS(*) $8
        MEAN01
        MEAN02
        MEAN03
        MEAN04
        MEAN05
        MEAN06
      ;
```

I.1.G   Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\REGARRAY.INC – INCLUDE FILE4 IN STEP2Q.SAS.

```
ARRAY REGRHS(*) $8
        REG01
        REG02
        REG03
        REG04
        REG05
        REG06
        REG07
        REG08
        REG09
        REG10
        REG11
        REG12
        REG13
        REG14
        REG15
        REG16
        REG17
        REG18
        REG19
        REG20
        REG21
        REG23
        REG24
    ;
```

**I.1.H   Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\RISKVARS.INC - INCLUDE
            FILE5 IN STEP2Q.SAS.**

```
VAR
  AGE1824
  AGE2534
  AGE3544
  AGE4554
  AGE5564
  R09063
 ;
```

I.1.I   Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\MEANFILE.INC - INCLUDE FILE6 IN STEP2Q.SAS.

```
OUTPUT OUT=MEANFILE(DROP = _TYPE_) MEAN =
        MEAN01
        MEAN02
        MEAN03
        MEAN04
        MEAN05
        MEAN06
     ;
```

```
*****************************************************************************
* Project:  DoD - Quarterly Adult Report Cards
* Program:  COMPOSIT.SAS
* Purpose:  Generate Quarterly Adult Report Card composite scores
* Requires: Programs STEP1Q.SAS and STEP2Q.SAS must be run prior
*           to this program.
*
* Modified: 1) 02/27/2001 By Keith Rathbun, Small changes to input DSNs to
*              accommodate the move of ALLSCORE.SAS functionality into the
*              STEP2Q.SAS program.
*           2) 01/08/2002 By Daniele Beahm, Changed versions in libname statements
*              so program can be run with SAS v8 and still produce SAS v612 datasets.
*           3) 04/10/2002 By Mike Scott, Updated variable names for 2002
*              survey.
*           4) 03/21/2003 By Mike Scott, Updated variable names for 2003
*              survey.
*           5) 03/24/2004 By Mike Scott, Updated for 2004.
*           6) 06/15/2004 By Regina Gramss, Update for Q2, added in
*              codes to compensate for any negative trend and to
*              print out the number of nonmissing data producing the
*              negative trend - those equal to or more than 30 nonmissing
*              data need to be further evaluated.
*           7) 09/2004 By Regina Gramss, Update for Q3, added in codes to
*              use XTNEXREG field instead of XREGION.
*           8) 01/2005 By Regina Gramss, Changed codes to use XSERVREG instead of
*              XTNEXREG, to incorporate service affliliation.
*           9) 04/2005 By Regina Gramss, Updated field names from 2004 to 2005.
*          10) 01/31/2006 By Regina Gramss, deleted following lines for "data r_&var1":
*              "%if &i~=8 %then %do" (keep set statement then delete the following:)
*              "%end
*               %else %do
*                                                   set  in2.h5&var1(rename=(resid5=r_&var1))
in2.h6&var1(rename=(resid6=r_&var1)) in2.h7&var1(rename=(resid7=r_&var1))
*               %end"
*          11) 03/21/2006 By Keith Rathbun, Updated variable names for 2003
*              survey.
*          12) 04/30/2008 By Justin Oh, Added Eric's upcase command to _name_ on line 204
*          13) April 7, 2009 by Mike Rudacille, changed variable names to reflect
*              modifications to beneficiary reports necessary for V4
*          14) June 22, 2009 By Keith Rathbun, Change weight variable from
*              FWRWT_V4 back to FWRWT.
*
*****************************************************************************;
OPTIONS NOCENTER LS=132 PS=78 SOURCE SOURCE2 MLOGIC MPRINT NOOVP COMPRESS=YES NOFMTERR;
libname in       "data";
libname in2      "data\adulthatfiles";
libname out      "data";
LIBNAME LIBRARY "..\..\..\DATA\AFINAL\FMTLIB";

%LET WGT = FWRWT;

 %MACRO COMPOSIT (TYPE=,COMPOS=,VAR1=,VAR2=,VAR3=,VAR4=,QCOUNT=);

  DATA _NULL_;
   %IF "&TYPE" = "R" %THEN %DO;
       CALL SYMPUT ('BYVAR','XSERVREG');
   %END; %ELSE
   %IF "&TYPE" = "C" %THEN %DO;
       CALL SYMPUT ('BYVAR','CACSMPL');
   %END;

 ****************************************;
 *   Create a Composite Score          ;
 ****************************************;
 DATA _NULL_;
     FILE 'FILES.INC';
     PUT @6 'SET';
     IF "&VAR1" NE '' THEN PUT @8 "IN.&TYPE._&VAR1";
     IF "&VAR2" NE '' THEN PUT @8 "IN.&TYPE._&VAR2";
     IF "&VAR3" NE '' THEN PUT @8 "IN.&TYPE._&VAR3";
```

```
      IF "&VAR4" NE '' THEN PUT @8 "IN.&TYPE._&VAR4";
      PUT @8 ';';
RUN;


DATA COMPOS&COMPOS;
      LENGTH DEPENDNT $ 8;
      %INCLUDE 'FILES.INC';
      DEPENDNT = "&TYPE.COMPOS&COMPOS";
RUN;

PROC SORT DATA=COMPOS&COMPOS;
      BY &BYVAR;
RUN;

PROC PRINT DATA=COMPOS&COMPOS(OBS=60);
      TITLE "Print of COMPOS&COMPOS after sort";
RUN;

DATA COMPOS&COMPOS;
      SET COMPOS&COMPOS;
      BY &BYVAR;
  %IF "&TYPE" = "R" %THEN %DO;
      ARRAY N(*) REGCNT1 - REGCNT8;
      ARRAY W(*) REGWGT1 - REGWGT8;
      ARRAY TN(*) TOTCNT1 - TOTCNT8;
      ARRAY TW(*) TOTWGT1 - TOTWGT8;
  %END; %ELSE
  %IF "&TYPE" = "C" %THEN %DO;
      ARRAY N(*) CATCNT1 - CATCNT8;
      ARRAY W(*) CATWGT1 - CATWGT8;
      ARRAY TN(*) TOTCNT1 - TOTCNT8;
      ARRAY TW(*) TOTWGT1 - TOTWGT8;
  %END;
      ARRAY ADJ(*)    ADJ1 - ADJ8;
      ARRAY TOTADJ(*) TOTADJ1 - TOTADJ8;
      ARRAY AVGADJ(*) AVJADJ1 - AVJADJ8;
      RETAIN TOTADJ TN TW;
      RETAIN AVGADJ;

      IF FIRST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            TOTADJ(I) = 0; TN(I)=0; TW(I)=0;
         END;
      END; DROP I;

      PUT ' ';
      PUT ' --- STARTING LOOP1: ' &BYVAR=;
      DO I = 1 TO DIM(TOTADJ);
         PUT I= ADJ(I)=;
         IF ADJ(I) NE . THEN DO;
            TOTADJ(I) = TOTADJ(I) + ADJ(I);
            TN(I)=TN(I)+N(I);
            TW(I)=TW(I)+W(I);
         END;
         PUT I= ADJ(I)= TOTADJ(I)=;
      END;


      PUT ' ';
      PUT ' --- STARTING LOOP2: ' &BYVAR=;
      IF LAST.&BYVAR THEN DO;
         DO I = 1 TO DIM(TOTADJ);
            PUT I= ADJ(I)= TOTADJ(I)= AVGADJ(I)=;
            AVGADJ(I) = TOTADJ(I)/&QCOUNT;
            adj(i)=avgadj(i);
            N(I)=TN(I)/&QCOUNT;
            W(I)=TW(I)/&QCOUNT;
         END;
         OUTPUT;
      END;

RUN;
```

```
%do i=1 %to 8;
/* Collect Standard Errors and residuals from variables in composite */
%if &type=R|(&i=1|&i=2|&i>4) %then %do;
%if &var1~= %then %do;
%let n=r_&var1;
%let m=s_&var1;

data s_&var1(rename=(semean&i=s_&var1));
set in.&type._&var1(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var1;
set in2.h&i.&var1(rename=(resid&i=r_&var1));
proc sort data=r_&var1; by mprid;
%end;
%if &var2~= %then %do;
%let n=%str(&n r_&var2);
%let m=%str(&m s_&var2);
data s_&var2(rename=(semean&i=s_&var2));
set in.&type._&var2(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var2;
set in2.h&i.&var2(rename=(resid&i=r_&var2));
proc sort data=r_&var2; by mprid;
%end;
%if &var3~= %then %do;
%let n=%str(&n r_&var3);
data s_&var3(rename=(semean&i=s_&var3));
set in.&type._&var3(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var3;
set in2.h&i.&var3(rename=(resid&i=r_&var3));
proc sort data=r_&var3; by mprid;
%let m=%str(&m s_&var3); %end;

%if &var4~= %then %do;
%let n=%str(&n r_&var4);
data s_&var4(rename=(semean&i=s_&var4));
set in.&type._&var4(keep=semean&i &byvar);
proc sort; by &byvar;
data r_&var4;
set in2.h&i.&var4(rename=(resid&i=r_&var4));
%let m=%str(&m s_&var4);
proc sort data=r_&var4; by mprid;
%end;
/* Merge residual files and estimate correlations */
data infile;
merge &n; by mprid;
proc sort; by &byvar;
proc corr  outp=outf noprint;
by &byvar;
var &n;
weight &WGT.;
data outf;
set outf; by &byvar;
where _type_='CORR';
/*  sum standard error of a row variable times correlation times standard error of each
column variable, then sum sums and take square root, divide by number of variables */
data final;
merge &m outf; by &byvar;
data final;
set final; by &byvar;
array r_val &n;
array s_val &m;
sde=0;
do i=1 to dim(s_val);
%do j=1 %to &qcount;
if upcase(_name_)=upcase("R_&&var&j") then
sde=sum(sde,r_val(i)*s_&&var&j*s_val(i));
%end;
end;
data sefin&compos._&i ERROR;
set final;
by &byvar;
if first.&byvar then tv=0;
```

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```
     tv+sde;
    if last.&byvar then do;
     if tv >= 0 then sde&i=(tv**.5)/&qcount; /* RSG 06/22/2004 change to only do the power
calculation if the tv value is nonnegative*/
     else if tv < 0 then do;    /* RSG 06/22/2004 those with negative trend is set aside to
print out*/
       output error;          /*                  and determine whether it is from nonmissing
data of 30 or more*/
       sde&i=.;
     end;
     output sefin&compos._&i;
    end;

    run;
    /* RSG 06/22/2004 - count how many nonmissing values are in the trend data
       to determine whether the negative trend in above datastep
       (tv < 0) is something to be concerned about */
    proc means data=infile noprint;
    by &byvar;
    var &n;
    output out=miss (drop=_type_ _freq_) n=;
    data error2;
    merge error(in=a drop=&n) miss(in=b);
    by &byvar;
    if a;
    run;
    proc print data=error2; /* RSG 06/22/2004  print out negative trend data and count of
nonmissing data*/
    var &byvar tv &n;
    title "ERROR - NEGAVTIVE TREND FOR &N IN GROUP=&I. AND COMPOSE=&COMPOS.";
    run;
    title ' '; /** RSG 06/22/2004 - BLANK OUT TITLE FOR NEXT LOOP **/

    %if &i=1 %then %do;
    data sefin&compos;
    set sefin&compos._1(keep=&byvar sde&i); by &byvar;
    rename sde&i=semean&i;
    run;
    %end;
    %else %do;
    data sefin&compos;
    merge sefin&compos sefin&compos._&i(keep=&byvar sde&i); by &byvar;
    rename sde&i=semean&i;
    run;
    %end;


    %end;
    %end;

    data out.&type.compos&compos;
    merge compos&compos sefin&compos; by &byvar;
    run;
    PROC PRINT DATA=OUT.&TYPE.COMPOS&COMPOS;
         TITLE1 COMPTITL;
     RUN;
    %MEND COMPOSIT;

    *-------------------------------------;
    *-       set the parameters here      -;
    *-------------------------------------;
    **********************************;
    * Call the macro for each composite ;
    **********************************;
    %COMPOSIT (type=R,compos=1,var1=R09029,var2=R09033,qcount=2);
    %COMPOSIT (type=R,compos=2,var1=R09007,var2=R09010,qcount=2);
    %COMPOSIT (type=R,compos=3,var1=R09021,var2=R09022,var3=R09023,var4=R09024,qcount=4);
    %COMPOSIT (type=R,compos=4,var1=R09040,var2=R09041,qcount=2);
    %COMPOSIT (type=R,compos=5,var1=R09045,var2=R09046,qcount=2);
```

I.1.K   Q4FY2009\PROGRAMS\PURCHASEDREPORTCARDS\CAHPS_ADULTQ4FY2009\FILES.INC - INCLUDE FILE IN COMPOSIT.SAS.

```
SET
  IN.R_R09045
  IN.R_R09046
  ;
```

```
*******************************************************************************
*
* PROGRAM:  LOADCAHQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Convert the CAHPS Scores Database into the WEB layout
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.SAS.
*
* INPUTS:   1) CAHPS Individual and Composite data sets with adjusted scores
*
* OUTPUT:   1) LOADCAHQ.SD2 - Combined CAHPS Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*              and composite data sets
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS - Recode questions and generate group files
*    - STEP2Q.SAS - Calculate individual adjusted scores for group 1-7
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*
* 2) The output file (LOADCAHQ.SD2) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
* MODIFIED:
*
*  1) 04/10/2002 BY MIKE SCOTT, Updated variable names for 2002 survey.
*  2) 03/21/2003 BY MIKE SCOTT, Updated variable names for 2003 survey.
*  3) 06/25/2003 BY MIKE SCOTT, Updated for Q2 2003.
*  4) 07/03/2003 BY MIKE SCOTT, Added TIMEPD variable to be set to the period
*     or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
*     setting to 'Composite'.
*  5) 10/21/2003 BY MIKE SCOTT, Updated for Q3 2003.
*  6) 01/07/2004 BY MIKE SCOTT, Updated for Q4 2003.
*  7) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
*  8) 06/15/2004 BY REGINA GRAMSS, Updated for q2 2004.
*  9) 09/2004 BY REGINA GRAMSS, Updated for Q3 2004, changed all reference
*     to XREGION to XTNEXREG.
* 10) 01/2005 BY REGINA GRAMSS, Changed XTNEXREG to XSERVREG to include
*     service affiliation into regions.
* 11) 04/2005 BY REGINA GRAMSS, Updated 2004 field names for 2005.
* 12) 07/2005 BY REGINA GRAMSS, updated for Q2 2005.
* 13) 10/2005 BY REGINA GRAMSS, Updated for Q3 2005
* 14) 12/2005 BY REGINA GRAMSS, Updated for Q4 2005
* 15) 03/21/2006 BY KEITH RATHBUN, Updated variable names for 2006 survey.
* 16) 07/12/2006 by Justin Oh, updated for Q3 FY 2006
* 17) 10/03/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q3
*     Changed Libname IN for Q4FY2006.
* 18) 12/15/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q4
*     Changed Libname IN for Q1FY2007.
* 19) 04/05/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q1
*     Changed Libname IN for Q2FY2007.
* 20) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
*     ReportCards OR PurchasedReportCards.
* 21) 09/04/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q3
*     Changed Libname IN for Q4FY2007.
* 22) 01/10/2008 BY KEITH RATHBUN, Updated variable names for 2008 survey.
* 23) 04/11/2008 by Justin Oh - Updated BENTYPE composite year to 2008 Q1
*     Changed Libname IN for Q2FY2008.
* 24) 06/13/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q2
*     Changed Libname IN for Q3FY2008.
* 25) 09/29/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q3
*     Changed Libname IN for Q4FY2008.
* 26) 04/11/2009 by Mike Rudacille - Changed variable names to reflect
*     modifications to beneficiary reports necessary for V4
* 27) 06/22/2009 by Keith Rathbun - Updated BENTYPE composite year to 2009 Q2
*     Changed Libname IN for Q3FY2009.
* 28) 09/30/2009 by Mike Rudacille - Updated BENTYPE composite year to 2009 Q3
*     Changed Libname IN for Q4FY2009.
```

```
        *
        *******************************************************************************
        * Assign data libraries and options
        *******************************************************************************;
        /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards              ***/
        %LET RCTYPE = PurchasedReportCards;

        LIBNAME IN   "..\..\&RCTYPE\CAHPS_ADULTQ4FY2009\DATA";
        LIBNAME OUT  "DATA";
        LIBNAME LIBRARY   "..\..\..\DATA\AFINAL\FMTLIB";

        OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

        *******************************************************************************
        * Load Format definitions for CAHPS Individual and composite data sets.
        *******************************************************************************;
        %INCLUDE "..\LOADCAHQ.INC";

        *******************************************************************************
        *******************************************************************************
        *
        * Process Macro Input Parameters:
        *
        * 1) QUESTION = Variable Question Name (DSN).
        *    - For individual Questions it is the variable name
        *    - For composite Questions it is called xCOMPOSn
        *       where n = a predefined composite # and
        *            x = R (Region) or C (Catchment)
        * 2) TYPE = Type of Score (COMPOSITE or INDIVIDUAL)
        * 3) REGCAT = Region/Catchment Area
        *
        *******************************************************************************
        *******************************************************************************;
        %MACRO PROCESS(QUESTION=,TYPE=);
        *******************************************************************************
        * Assign value for BENTYPE composite year
        *******************************************************************************;
        %LET YEAR = "2009 Q3"; * Note that this is based on Calendar Year here;

        *******************************************************************************
        * Assign prefix for weighted/unweighted count variables.
        * Unweighted counts is REGCNTn where n=group number.
        * Weighted counts is REGWGTn where n=group number.
        *******************************************************************************;
        %LET PREFIX = REG;

        *******************************************************************************
        *
        * Convert the CAHPS individual Scores Record into WEB layout.
        * There are 8 logical records (adjusted scores) per physical record:
        *
        * _____
        *    Adjusted Score            Definitions
        *    Group Number
        * _____
        * 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004>=2
        * 2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004>=2
        * 3. Enrollees w/civ PCM       XENR_PCM = 3         AND H09004>=2
        * 4. Nonenrollees             XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
        * 5. Active duty              XBNFGRP = 1
        * 6. Active duty dependents   XBNFGRP = 2
        * 7. Retirees and dependents  XBNFGRP IN (3,4)
        *
        *******************************************************************************;
        DATA &QUESTION;
           SET IN.&QUESTION;

           LENGTH MAJGRP  $30;
           LENGTH REGION  $25; **RSG 01/2005 - Changed format to be large enough to include service
affiliation;
           LENGTH REGCAT  $26;
           LENGTH BENTYPE $50;
           LENGTH BENEFIT $34;
           LENGTH TIMEPD  $35; **MJS 07/03/03 Added line;
```

```
        ***********************************************************************
        * Assign Region
        ***********************************************************************;
        REGION  = PUT(XSERVREG,SERVREGF.);
        ***********************************************************************
        * Assign benefit and benefit type
        ***********************************************************************;
        IF "&TYPE" = "INDIVIDUAL" THEN DO;
           IF DEPENDNT IN("R09018","R09047","R09027","R09031") THEN
              BENTYPE   =   "Composite";          ***MJS  07/03/03  Changed  from  BENTYPE  =
PUT(&YEAR,$BENTYPF.);
           ELSE
              BENTYPE = PUT(DEPENDNT,$BENTYPF.);
           BENEFIT = PUT(DEPENDNT,$BENEF.);
           TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added line;
        END;
        ELSE IF "&TYPE" = "COMPOSITE" THEN DO;
           BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
           BENEFIT = PUT(DEPENDNT,$BENEF.);
           TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added line;
        END;
        ELSE PUT "ERROR - Invalid TYPE = &TYPE";

        ***********************************************************************
        * For now, Initialize Significance test to zero.
        ***********************************************************************;
        SIG = 0;
        ***********************************************************************
        * Assign Region
        ***********************************************************************;
        REGCAT = PUT(XSERVREG,SERVREGF.);

        ***********************************************************************
        * 1 = Prime Enrollees
        ***********************************************************************;
        MAJGRP = PUT(1,MAJGRPF.);
        SCORE = ADJ1;
        SEMEAN = SEMEAN1;
        N_OBS = &PREFIX.CNT1;
        N_WGT = &PREFIX.WGT1;
        OUTPUT;

        ***********************************************************************
        * 2 = Enrollees with Military PCM
        ***********************************************************************;
        MAJGRP = PUT(2,MAJGRPF.);
        SCORE = ADJ2;
        SEMEAN = SEMEAN2;
        N_OBS = &PREFIX.CNT2;
        N_WGT = &PREFIX.WGT2;
        OUTPUT;

        ***********************************************************************
        * 3 = Enrollees with Civilian PCM
        ***********************************************************************;
        MAJGRP = PUT(3,MAJGRPF.);
        SCORE = ADJ3;
        SEMEAN = SEMEAN3;
        N_OBS = &PREFIX.CNT3;
        N_WGT = &PREFIX.WGT3;
        OUTPUT;

        ***********************************************************************
        * 4 = Non-enrolled Beneficiaries
        ***********************************************************************;
        MAJGRP = PUT(4,MAJGRPF.);
        SCORE = ADJ4;
        SEMEAN = SEMEAN4;
        N_OBS = &PREFIX.CNT4;
        N_WGT = &PREFIX.WGT4;
        OUTPUT;

        ***********************************************************************
```

```
   * 5 = Active Duty
   **********************************************************************;
   MAJGRP = PUT(5,MAJGRPF.);
   SCORE = ADJ5;
   SEMEAN = SEMEAN5;
   N_OBS = &PREFIX.CNT5;
   N_WGT = &PREFIX.WGT5;
   OUTPUT;


   **********************************************************************
   * 6 = Active Duty Dependents
   **********************************************************************;
   MAJGRP = PUT(6,MAJGRPF.);
   SCORE = ADJ6;
   SEMEAN = SEMEAN6;
   N_OBS = &PREFIX.CNT6;
   N_WGT = &PREFIX.WGT6;
   OUTPUT;


   **********************************************************************
   * 7 = Retirees and Dependents
   **********************************************************************;
   MAJGRP = PUT(7,MAJGRPF.);
   SCORE = ADJ7;
   SEMEAN = SEMEAN7;
   N_OBS = &PREFIX.CNT7;
   N_WGT = &PREFIX.WGT7;
   OUTPUT;


   **********************************************************************
   * 8 = All Beneficiaries               ALL Beneficiaries
   **********************************************************************;
   MAJGRP = PUT(8,MAJGRPF.);
   SCORE  = ADJ8;
   SEMEAN = SEMEAN8;
   N_OBS = &PREFIX.CNT8;
   N_WGT = &PREFIX.WGT8;
   OUTPUT;

KEEP MAJGRP
     REGION
     REGCAT
     BENTYPE
     BENEFIT
     TIMEPD   /*MJS 07/03/03 Added*/
     SCORE
     SEMEAN
     N_OBS
     N_WGT
     SIG
   ;
RUN;

%MEND;

******************************************************************************
* COMPOSITE # 1.
* GETTING NEEDED CARE VARIABLES.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS1,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09029,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09033,TYPE=INDIVIDUAL);


******************************************************************************
* COMPOSITE # 2.
* GETTING CARE QUICKLY VARIABLES.
*****************************************************************************;
%PROCESS(QUESTION=RCOMPOS2,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09007,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09010,TYPE=INDIVIDUAL);


******************************************************************************
* COMPOSITE # 3.
* HOW WELL DOCTORS COMMUNICATE.
```

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```
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS3,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09021,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09022,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09023,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09024,TYPE=INDIVIDUAL);


***************************************************************************
* COMPOSITE # 4.
* CUSTOMER SERVICE.
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS4,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09040,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09041,TYPE=INDIVIDUAL);


***************************************************************************
* COMPOSITE # 5.
* CLAIMS PROCESSING.
***************************************************************************;
%PROCESS(QUESTION=RCOMPOS5,TYPE=COMPOSITE );
%PROCESS(QUESTION=R_R09045,TYPE=INDIVIDUAL);
%PROCESS(QUESTION=R_R09046,TYPE=INDIVIDUAL);


***************************************************************************
* INDIVIDUAL # 1.
* RATING OF ALL HEALTH CARE: 0 - 10.
***************************************************************************;
%PROCESS(QUESTION=R_R09018,TYPE=INDIVIDUAL);


***************************************************************************
* INDIVIDUAL # 2.
* RATING OF HEALTH PLAN: 0 - 10.
***************************************************************************;
%PROCESS(QUESTION=R_R09047,TYPE=INDIVIDUAL);


***************************************************************************
* INDIVIDUAL # 3.
* RATING OF PERSONAL DOCTOR: 0 - 10.
***************************************************************************;
%PROCESS(QUESTION=R_R09027,TYPE=INDIVIDUAL);


***************************************************************************
* INDIVIDUAL # 4.
* SPECIALTY CARE: 0 - 10.
***************************************************************************;
%PROCESS(QUESTION=R_R09031,TYPE=INDIVIDUAL);


***************************************************************************
***************************************************************************
* STACK up all of the files into one final output dataset.
***************************************************************************
***************************************************************************;
DATA OUT.LOADCAHQ;
    SET R_R09029
        R_R09033
        R_R09007
        R_R09010
        R_R09021
        R_R09022
        R_R09023
        R_R09024
        R_R09040
        R_R09041
        R_R09045
        R_R09046
        R_R09018
        R_R09047
        R_R09027
        R_R09031
        RCOMPOS1
        RCOMPOS2
        RCOMPOS3
        RCOMPOS4
        RCOMPOS5
```

```
      ;
    IF SCORE = . THEN DELETE;
RUN;


TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
TITLE2 "Program Name: LOADCAHQ.SAS By Keith Rathbun";
TITLE3 "Program Inputs: CAHPS Individual and Composite data sets with adjusted scores";
TITLE4 "Program Outputs: LOADCAHQ.SAS7BDAT - Combined CAHPS Scores Database in WEB layout";

PROC FREQ;
TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT
       REGION*REGCAT
      /MISSING LIST;
RUN;
```

```
*****************************************************************************
*
* PROGRAM:  LOADCAHQ.INC
* TASK:     QUARTERLY DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Format definitions for converting the CAHPS Scores Database
*           into the WEB layout.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from LOADCAHP.INC.
*
* MODIFIED: 1) 08/13/2001 BY KEITH RATHBUN, Added XSERVAFF format to
*              accommodate the short reports.
*           2) 01/24/2002 BY KEITH RATHBUN, Added BENTYPF = 1998,1999,2000
*              added catchment composites.
*           3) 04/10/2002 BY KEITH RATHBUN, Added parameters for 2002 survey.
*           4) 04/03/2003 BY MIKE SCOTT, Added parameters for 2003 survey.
*           5) 07/08/2003 BY MIKE SCOTT, Added formats GETNCARE, GETCAREQ,
*              CRTSHELP, HOWWELL, CUSTSERV, CLMSPROC, and PREVCARE.
*           6) 03/22/2004 BY KEITH RATHBUN, Added parameters for 2004 survey.
*              Changed R04031 to be "Wait Less than 15 Minutes For Appointment".
*           7) 05/06/2004 BY MIKE SCOTT, Changed R04031 back to 2003 version of
*              the label ("Wait More than 15 Minutes Past Appointment") so that
*              the Q1 2004 version of the question is consistent with past
*              versions.  The label will be changed to the new version ("Waiting
*              in the Doctor's Office") in Makehtmq.sas.
*           8) 02/2006 BY REGINA GRAMSS, Changed date format to fielding dates.
*           9) 03/21/2006 BY KEITH RATHBUN, Added parameters for 2006 survey.
*          10) 08/22/2006 BY JUSTIN OH, Changed SERVREGF format for Overseas.
*          11) 12/15/2006 BY JUSTIN OH, Added parameters for 2007 survey.
*          12) 02/02/2007 BY JUSTIN OH, Added "s" in Healthy Behaviors in VALUE BEN.
*          13) 01/10/2008 BY KEITH RATHBUN, Added parameters for 2008 survey.
*          14) 01/09/2009 BY MIKE RUDACILLE, Added parameters for 2009 survey.
*          14) 01/16/2009 BY MIKE RUDACILLE, Changed CONUS to USA.
*          15) 04/11/2009 by Mike Rudacille - Changed formats to reflect
*              modifications to beneficiary reports necessary for V4
*
* INPUTS:   No direct input
*
* OUTPUT:   No direct output
*
* NOTES:    1) Under the new contract (8860), the survey year was changed
*              to be based on the year the survey is administered (2002)
*              as opposed to the questioning reference frame (2001).  This
*              include file contains variable names for both the 2001
*              survey administration year and the the 2002 administration
*              year surveys.
*
*****************************************************************************
;
*****************************************************************************
* FORMAT Definitions
*****************************************************************************;
PROC FORMAT;
   VALUE MAJGRPF
      1 = "Prime Enrollees           "
      2 = "Enrollees with Military PCM"
      3 = "Enrollees with Civilian PCM"
      4 = "Non-enrolled Beneficiaries "
      5 = "Active Duty               "
      6 = "Active Duty Dependents    "
      7 = "Retirees and Dependents   "
      8 = "All Beneficiaries         "
   ;
   VALUE XSERVAFF
      1 = "ARMY"
      2 = "AIR FORCE"
      3 = "NAVY"
      4 = "OTHER"
   ;
   VALUE REGIONF
      0 = "USA MHS "
```

```
        1 = "North"
        2 = "South"
        3 = "West"
        4 = "Overseas"
      ;

/*JSO 08/24/2006, Changed Overseas to Service for Europe,Pacific,Latin*/
    VALUE SERVREGF
        1 = "North Army"
        2 = "North Air Force"
        3 = "North Navy"
        4 = "North Other"
        5 = "South Army"
        6 = "South Air Force"
        7 = "South Navy"
        8 = "South Other"
        9 = "West Army"
       10 = "West Air Force"
       11 = "West Navy"
       12 = "West Other"
       13 = "Europe Army"
       14 = "Europe Air Force"
       15 = "Europe Navy"
       16 = "Europe Other"
       17 = "Pacific Army"
       18 = "Pacific Air Force"
       19 = "Pacific Navy"
       20 = "Pacific Other"
       21 = "Latin America Army"
       22 = "Latin America Air Force"
       23 = "Latin America Navy"
       24 = "Latin America Other"
       25 = "USA ARMY"
       26 = "USA AIR FORCE"
       27 = "USA NAVY"
       28 = "USA OTHER";

/*JSO 08/24/2006, Changed Overseas to Europe,Pacific,Latin*/
    VALUE SERVREGO
        1 = "North Army"
        2 = "North Air Force"
        3 = "North Navy"
        4 = "North Other"
        5 = "South Army"
        6 = "South Air Force"
        7 = "South Navy"
        8 = "South Other"
        9 = "West Army"
       10 = "West Air Force"
       11 = "West Navy"
       12 = "West Other"
       13 = "Overseas Europe"
       14 = "Overseas Pacific"
       15 = "Overseas Latin America";

    VALUE $BENTYPF
     "1998    " = "1998                                          "
     "1999    " = "1999                                          "
     "2000    " = "2000                                          "
     "2001    " = "2001                                          "
     "2002    " = "2002                                          "
     "2003    " = "2003                                          "
     "2004    " = "2004                                          "
     "2005    " = "2005                                          "
     "2006    " = "2006                                          "
     "2007    " = "2007                                          "
     "2008    " = "2008                                          "
     "2000 Q1 " = "January, 2000 to December, 2000               "
     "2000 Q2 " = "April, 2000 to March, 2001                    "
     "2000 Q3 " = "July, 2000 to June, 2001                      "
     "2000 Q4 " = "October, 2000 to September, 2001              "
     "2002 Q1 " = "January, 2001 to December, 2001               "
     "2002 Q2 " = "April, 2001 to March, 2002                    "
     "2002 Q3 " = "July, 2001 to June, 2002                      "
```

```
        "2002 Q4 " = "October, 2001 to September, 2002              "
        "2003 Q1 " = "January, 2002 to December, 2002              "
        "2003 Q2 " = "April, 2002 to March, 2003                   "
        "2003 Q3 " = "July, 2002 to June, 2003                     "
        "2003 Q4 " = "October, 2002 to September, 2003             "
        "2004 Q1 " = "January, 2003 to December, 2003              "
        "2004 Q2 " = "April, 2003 to March, 2004                   "
        "2004 Q3 " = "Quarter 3, CY 2004                           "
        "2004 Q4 " = "Quarter 4, CY 2004                           "
        "2005 Q1 " = "January, 2005                                "
        "2005 Q2 " = "April, 2005                                  "
        "2005 Q3 " = "July, 2005                                   "
        "2005 Q4 " = "October, 2005                                "
        "2006 Q1 " = "January, 2006                                "
        "2006 Q2 " = "April, 2006                                  "
        "2006 Q3 " = "July, 2006                                   "
        "2006 Q4 " = "October, 2006                                "
        "2007 Q1 " = "January, 2007                                "
        "2007 Q2 " = "April, 2007                                  "
        "2007 Q3 " = "July, 2007                                   "
        "2007 Q4 " = "October, 2007                                "
        "2008 Q1 " = "January, 2008                                "
        "2008 Q2 " = "April, 2008                                  "
        "2008 Q3 " = "July, 2008                                   "
        "2008 Q4 " = "October, 2008                                "
        "2009 Q1 " = "January, 2009                                "
        "2009 Q2 " = "April, 2009                                  "
        "2009 Q3 " = "July, 2009                                   "
        "2009 Q4 " = "October, 2009                                "

/***********************************************************************************************
/
         /*                          Admin.                    Year                       Defn.
*/
         /* 2001         2002         2003         2004     2005     2006     2007     2008
2009    */

/***********************************************************************************************
/
        "R00014  ", "R02016  ", "R03013  ", "R04013", "R05013", "R06013", "R07013", "R08013",
"R09029" = "Getting to See a Specialist        "
        "R00028  ", "R02030  ", "R03027  ", "R04028", "R05027", "R06027", "R07027", "R08027",
"R09033" = "Getting Treatment                  "
        "R00024  ", "R02026  ", "R03023  ", "R04020", "R05019", "R06019", "R07019", "R08019",
"R09007" = "Wait for Urgent Care               "
        "R00021  ", "R02023  ", "R03020  ", "R04023", "R05022", "R06022", "R07022", "R08022",
"R09010" = "Wait for Routine Visit             "
        "R00033  ", "R02035  ", "R03032  ", "R04034", "R05033", "R06033", "R07033", "R08033",
"R09021" = "Listens Carefully                  "
        "R00034  ", "R02036  ", "R03033  ", "R04035", "R05034", "R06034", "R07034", "R08034",
"R09022" = "Explains so You Can Understand      "
        "R00035  ", "R02037  ", "R03034  ", "R04036", "R05035", "R06035", "R07035", "R08035",
"R09023" = "Shows Respect                      "
        "R00036  ", "R02038  ", "R03035  ", "R04037", "R05036", "R06036", "R07036", "R08036",
"R09024" = "Spends Time with You               "
        "R00048  ", "R02048  ", "R03044  ", "R04045", "R05043", "R06043", "R07043", "R08043",
"R09040" = "Getting Information                "
        "R00050  ", "R02050  ", "R03046  ", "R04047", "R05045", "R06045", "R07045", "R08045",
"R09041" = "Courteous Customer Service         "
        "R00044  ", "R02044  ", "R03040  ", "R04041", "R05040", "R06040", "R07040", "R08040",
"R09045" = "Claims Handled in a Reasonable Time"
        "R00045  ", "R02045  ", "R03041  ", "R04042", "R05041", "R06041", "R07041", "R08041",
"R09046" = "Claims Handled Correctly           "
        "R00037  ", "R02039  ", "R03036  ", "R04038", "R05037", "R06037", "R07037", "R08037",
"R09018" = "Health Care                        "
        "R00056  ", "R02056  ", "R03052  ", "R04054", "R05048", "R06048", "R07048", "R08048",
"R09047" = "Health Plan                        "
        "R00009  ", "R02011  ", "R03011  ", "R04009", "R05009", "R06009", "R07009", "R08009",
"R09027" = "Primary Care Manager               "
        "R00016  ", "R02018  ", "R03015  ", "R04015", "R05015", "R06015", "R07015", "R08015",
"R09031" = "Specialty Care                     "
                             "PHYSIC  " = "Physical                                  "
                             "MENTAL  " = "Mental                                    "
        ;
```

```
         VALUE $BENEF
         "RCOMPOS1","CCOMPOS1","R00014","R00028",
                              "R02016","R02030",
                              "R03013","R03027",
                              "R04013","R04028",
                              "R05013","R05027",
                              "R06013","R06027",
                              "R07013","R07027",
                              "R08013","R08027",
                              "R09029","R09033"
         = "Getting Needed Care  "

         "RCOMPOS2","CCOMPOS2","R00024","R00021",
                              "R02026","R02023",
                              "R03023","R03020",
                              "R04020","R04023",
                              "R05019","R05022",
                              "R06019","R06022",
                              "R07019","R07022",
                              "R08019","R08022",
                              "R09007","R09010"
         = "Getting Care Quickly "

         "RCOMPOS3","CCOMPOS3","R00033","R00034","R00035","R00036",
                              "R02035","R02036","R02037","R02038",
                              "R03032","R03033","R03034","R03035",
                              "R04034","R04035","R04036","R04037",
                              "R05033","R05034","R05035","R05036",
                              "R06033","R06034","R06035","R06036",
                              "R07033","R07034","R07035","R07036",
                              "R08033","R08034","R08035","R08036",
                              "R09021","R09022","R09023","R09024"
         = "How Well Doctors Communicate "

         "RCOMPOS4","CCOMPOS4","R00048","R00050",
                              "R02048","R02050",
                              "R03044","R03046",
                              "R04045","R04047",
                              "R05043","R05045",
                              "R06043","R06045",
                              "R07043","R07045",
                              "R08043","R08045",
                              "R09040","R09041"
         = "Customer Service          "

         "RCOMPOS5","CCOMPOS5","R00044","R00045",
                              "R02044","R02045",
                              "R03040","R03041",
                              "R04041","R04042",
                              "R05040","R05041",
                              "R06040","R06041",
                              "R07040","R07041",
                              "R08040","R08041",
                              "R09045","R09046"
         = "Claims Processing
                 "
         "RCOMPOS11","COMPOS11","MENTAL","PHYS"
         = "Health Status                 "

/************************************************************************************/
         /*                        Admin.                        Year                   Defn.
*/
         /* 2001     2002      2003      2004      2005      2006      2007      2008      2009
*/

/************************************************************************************/
         "R00037",  "R02039",  "R03036",  "R04038",  "R05037",  "R06037",  "R07037",  "R08037",
"R09018" = "Health Care                         "
         "R00056",  "R02056",  "R03052",  "R04054",  "R05048",  "R06048",  "R07048",  "R08048",
"R09047" = "Health Plan                             "
         "R00009",  "R02011",  "R03011",  "R04009",  "R05009",  "R06009",  "R07009",  "R08009",
"R09027" = "Primary Care Manager                "
         "R00016",  "R02018",  "R03015",  "R04015",  "R05015",  "R06015",  "R07015",  "R08015",
"R09031" = "Specialty Care                      "
```

```
     ;
VALUE BEN
/*  0 = 'Total'  deleted no longer calculating total 04/2005 RSG ***/
   1 = 'Getting Needed Care'
   2 = 'Getting Care Quickly'
   3 = 'How Well Doctors Communicate'
   4 = 'Customer Service'
   5 = 'Claims Processing'
   6 = 'Health Plan'
   7 = 'Health Care'
   8 = 'Primary Care Manager'
   9 = 'Specialty Care'
  10 = 'Preventive Care'
  11 = 'Healthy Behaviors';

  VALUE MAJOR
  1 = "Prime Enrollees          "
  2 = "Enrollees with Military PCM"
  3 = "Enrollees with Civilian PCM"
  4 = "Non-enrolled Beneficiaries "
  5 = "Active Duty              "
  6 = "Active Duty Dependents    "
  7 = "Retirees and Dependents    "
  8 = "All Beneficiaries         ";

  VALUE GETNCARE
  1 = "Getting to See a Specialist"
  2 = "Getting Treatment"
  3 = "Composite";

  VALUE GETCAREQ
  1 = "Wait for Routine Visit"
  2 = "Wait for Urgent Care"
  3 = "Composite";

  VALUE HOWWELL
  1 = "Listens Carefully"
  2 = "Explains so You Can Understand"
  3 = "Shows Respect"
  4 = "Spends Time with You"
  5 = "Composite";

  VALUE CUSTSERV
  1 = "Getting Information"
  2 = "Courteous Customer Service"
  3 = "Composite";

  VALUE CLMSPROC
  1 = "Claims Handled in a Reasonable Time"
  2 = "Claims Handled Correctly"
  3 = "Composite";

  VALUE PREVCARE
  1 = "Mammography"
  2 = "Pap Smear"
  3 = "Hypertension"
  4 = "Prenatal Care"
  5 = "Composite";

  VALUE SMOKEF
  1 = "Non-Smoking Rate"
  2 = "Counselled To Quit"
  3 = "Percent Not Obese"
  4 = "Composite";
RUN;
```

```
******************************************************************************
*
* PROGRAM:  BENCHA01.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Extract Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUTS:   1) AC2006DB.SD2 - 2006 Adult CAHPS Questions
*
* OUTPUT:   1) BENCHA01.SD2 - 2006 Adult CAHPS Questions Renamed to be
*              consistent with the 2006 MPR DOD Survey.
*
* MODIFIED: 1) 12/19/2000 BY KEITH RATHBUN for Q1 2000 Survey.
*           2) 04/11/2002 BY MIKE SCOTT, Updated variable names for 2002
*              Survey.
*           3) 07/30/2002 BY MIKE SCOTT, Updated to use 2001 NCBD.
*           4) 03/21/2003 BY MIKE SCOTT, Updated for 2003 survey.
*           5) 05/06/2003 BY MIKE SCOTT, Updated for 2002 benchmarks.
*           6) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
*           7) 04/16/2004 BY KEITH RATHBUN, Updated to use 2003 NCBD.
*           8) 05/17/2005 BY REGINA GRAMSS, Updated for Q1 2005.
*           9) 03/24/2006 BY KEITH RATHBUN, Updated for Q2 FY 2006.
*              Changed variable names to match the 2006 HCSDB survey.
*              Changed CAHPS variable names to match those in 2005 NCBD.
*          10) 02/21/2007 BY JUSTIN OH, Updated for Q1 FY 2007.
*              Changed variable names to match the 2006 HCSDB survey.
*              Changed CAHPS variable names to match those in 2006 NCBD.
*              Changed SREDHIGH varible AC60_05 to AC58_06
*          11) 01/10/2008 BY KEITH RATHBUN, Updated for Q1 FY 2008.
*              Changed variable names to match the 2008 HCSDB survey.
*          12) 01/05/2009 BY MIKE RUDACILLE, Updated for Q1 FY 2009.
*              Changed variable names to match the 2009 HCSDB survey.
*
* NOTES:
*
* 1) This program will generate the input for BENCHA02.SAS.
*
******************************************************************************
* Assign data libraries and options
******************************************************************************;
LIBNAME IN  V612 "..\..\..\2006AdultChildNCBD\AC";
LIBNAME OUT      "data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA01;
   SET IN.AC2006DB (RENAME=(BIRTHYY=YOB));
   FORMAT _ALL_;
   ******************************************
   * Getting Needed Care
   ******************************************;
   H09028A  = AC25_06;
   H09011A  = AC07_06;
   H09013A  = AC09_06;
   H09027A  = AC24_06;
   H09029A  = AC26_06;
   ******************************************
   * Getting Care Quickly
   ******************************************;
   H09017A  = AC14_06;
   H09022A  = AC19_06;
   H09019A  = AC16_06;
   H09030A  = AC27_06;
   ******************************************
   * How Well Doctors Communicate
   ******************************************;
   H09033A  = AC30_06;
   H09034A  = AC31_06;
   H09035A  = AC32_06;
   H09036A  = AC33_06;
```

```
                 *********************************************
                 * Courteous and Helpful Office Staff
                 *********************************************;
                 H09031A   = AC28_06;
                 H09032A   = AC29_06;
                 *********************************************
                 * Customer Service
                 *********************************************;
                 H09043A   = AC40_06;
                 H09045A   = AC42_06;
                 H09047A   = AC48_06;
                 *********************************************
                 * Claims Processing
                 *********************************************;
                 H09040A   = AC36_06;
                 H09041A   = AC37_06;
                 *********************************************
                 * Health Care Rating
                 *********************************************;
                 H09037A   = AC34_06;
                 *********************************************
                 * Health Plan Rating
                 *********************************************;
                 H09048A   = AC49_06;
                 *********************************************
                 * Personal Doctor Rating
                 *********************************************;
                 H09009A   = AC05_06;
                 *********************************************
                 * Specialist Rating
                 *********************************************;
                 H09015A   = AC11_06;
                 *********************************************
                 * Health Status
                 *********************************************;
                 H09063    = AC50_06;
                 H09008A   = AC04_06;
                 AGEGROUP = AGE;    *NEED TO USE USE THIS DIRECTLY (already grouped);
                 XSEXA    = GENDER;
                 SREDHIGH = AC58_06;                        /*JSO 02/21/06 chged AC60_05 to AC58_06 */
                 SRRACEA=AC60A_06;
                 SRRACEB=AC60B_06;
                 SRRACEC=AC60C_06;
                 SRRACED=AC60D_06;
                 SRRACEE=AC60E_06;
                 H09071=AC59_06;
                 if product in (7,9) then model=4;          /*MJS 05/06/03 product now numeric*/
                 if product=3 then model=2;                 /*coded according to AC FORMATS.SAS*/
                 if product=1 then model=1;
                 if product=4 then model=6;
                 if product=8 then model=5;
                 if product=2 then model=3;
                 nproduct=planid+0;                         /*MJS 05/06/03 was plnid now planid*/

          LABEL  H09011A    = "AC07_06 - CAHPS variable"
                 H09013A    = "AC09_06 - CAHPS variable"
                 H09027A    = "AC24_06 - CAHPS variable"
                 H09028A    = "AC25_06 - CAHPS variable"
                 H09029A    = "AC26_06 - CAHPS variable"
                 H09017A    = "AC14_06 - CAHPS variable"
                 H09022A    = "AC19_06 - CAHPS variable"
                 H09019A    = "AC16_06 - CAHPS variable"
                 H09030A    = "AC27_06 - CAHPS variable"
                 H09033A    = "AC30_06 - CAHPS variable"
                 H09034A    = "AC31_06 - CAHPS variable"
                 H09035A    = "AC32_06 - CAHPS variable"
                 H09036A    = "AC33_06 - CAHPS variable"
                 H09031A    = "AC28_06 - CAHPS variable"
                 H09032A    = "AC29_06 - CAHPS variable"
                 H09043A    = "AC40_06 - CAHPS variable"
                 H09045A    = "AC42_06 - CAHPS variable"
                 H09047A    = "AC48_06 - CAHPS variable"
                 H09040A    = "AC36_06 - CAHPS variable"
                 H09041A    = "AC37_06 - CAHPS variable"
```

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```
         H09037A    = "AC34_06 - CAHPS variable"
         H09048A    = "AC49_06 - CAHPS variable"
         H09009A    = "AC05_06 - CAHPS variable"
         H09015A    = "AC11_06 - CAHPS variable"
         H09066     = "AC50_06 - CAHPS variable"
         H09008A    = "AC04_06 - CAHPS variable"
         AGEGROUP  = "AGE - CAHPS variable"
         XSEXA      = "GENDER - CAHPS variable"
         SREDHIGH = "AC58_06 - CAHPS variable"   /*JSO 02/21/06 chged AC60_05 to AC58_06 */
       ;
 KEEP   H09011A
        H09013A
        H09027A
        H09028A
        H09029A
        H09017A
        H09022A
        H09019A
        H09030A
        H09033A
        H09034A
        H09035A
        H09036A
        H09031A
        H09032A
        H09043A
        H09045A
        H09047A
        H09040A
        H09041A
        H09037A
        H09048A
        H09009A
        H09015A
        H09063
        H09008A
        AGEGROUP
        XSEXA
        SREDHIGH
        MODEL
        NPRODUCT
        AC03_0
        DISP
        YOB
        SRRACEA--SRRACEE
        H09071;
       ;
RUN;

TITLE1 "Extract Adult CAHPS Questions (DoD)";
TITLE2 "Program Name: BENCHA01.SAS By Keith Rathbun";
TITLE3 "Program Input: AC2006DB.sd2";
TITLE4 "Program Output: BENCHA01.sas7bdat";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES _ALL_ /MISSING LIST;
RUN;
```

```
*******************************************************************************
*
* PROGRAM:  BENCHA02.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
* PURPOSE:  Recode Adult CAHPS Questions
*
* WRITTEN:  06/02/2000 BY KEITH RATHBUN
*
* INPUT:     1) BENCHA01.SD2 - Adult CAHPS Questions Renamed to be
*               consistent with the MPR DOD Survey.
*
* OUTPUT:    1) BENCHA02.SD2 - Recoded Adult CAHPS Questions Renamed
*               to be consistent with the MPR DOD Survey.
*
* MODIFIED: 1) 12/19/2000 BY KEITH RATHBUN for Q1 2000 Survey.
*           2) 04/11/2002 BY MIKE SCOTT, Updated variable names for 2002
*              Survey.
*           3) 07/30/2002 BY MIKE SCOTT, Updated to use 2001 NCBD.
*           4) 03/21/2003 BY MIKE SCOTT, Updated for 2003 survey.
*           5) 05/06/2003 BY MIKE SCOTT, Changed labels from _01 to _02.
*           6) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
*           7) April 2004 By Keith Rathbun, Removed reverse coding for
*              H04031.  2004 survey question wording is 'Within 15 minutes'
*              instead of "More than 15 Minutes".  Updated CAHPS variable
*              labels to be consistent with 2003 NCBD.
*           8) 06/2005 By Regina Gramss, Updated codes with 2005 variable
*              names/labels.
*           9) 03/24/2006 BY KEITH RATHBUN, Updated for 2006 survey.
*              Changed CAHPS variable names to match those in 2005 NCBD.
*          10) 01/10/2008 BY KEITH RATHBUN, Updated for 2008 survey.
*          11) 01/05/2009 BY MIKE RUDACILLE, Updated for 2009 survey.
*
* NOTES:
*
* 1) Run this program after BENCHA01.SAS.
* 2) This program will generate the input for BENCHA03.SAS.
*
*******************************************************************************
* Assign data libraries and options
*****************************************************************************;
LIBNAME IN      "data";
LIBNAME OUT     "data";
OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER;

DATA OUT.BENCHA02(rename=(nproduct=product));
   SET IN.BENCHA01;

   *************************************************************************
   * Recode variables with Never, Sometimes, Usually and Always.
   * Recode Never & Sometimes (1 & 2) to 1.
   * Recode Usually (3) to 2.
   * Recode Always (4) to 3.
   *************************************************************************;
   IF H09028A = 2      THEN H09029A=3;      /* ES 4/28/04  Change in scoring logic */

   IF H09022A = 1        THEN R09022 = 1;   /* MJS 03/23/04 Changed 2003 to 2004 variables
names */
      ELSE IF H09022A = 2 THEN R09022 = 1;
      ELSE IF H09022A = 3 THEN R09022 = 2;
      ELSE IF H09022A = 4 THEN R09022 = 3;
      ELSE IF H09022A < 0 THEN R09022 = .;

   IF H09017A = 1      THEN R09017 = 1;
      ELSE IF H09017A = 2 THEN R09017 = 1;
      ELSE IF H09017A = 3 THEN R09017 = 2;
      ELSE IF H09017A = 4 THEN R09017 = 3;
      ELSE IF H09017A < 0 THEN R09017 = .;

   IF H09019A = 1      THEN R09019 = 1;
      ELSE IF H09019A = 2 THEN R09019 = 1;
```

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         ELSE IF H09019A = 3 THEN R09019 = 2;
         ELSE IF H09019A = 4 THEN R09019 = 3;
         ELSE IF H09019A < 0 THEN R09019 = .;

         IF H09030A = 1      THEN R09030 = 1;
         ELSE IF H09030A = 2 THEN R09030 = 1;
         ELSE IF H09030A = 3 THEN R09030 = 2;
         ELSE IF H09030A = 4 THEN R09030 = 3;
         ELSE IF H09030A < 0 THEN R09030 = .;

         IF H09031A = 1      THEN R09031 = 1;
         ELSE IF H09031A = 2 THEN R09031 = 1;
         ELSE IF H09031A = 3 THEN R09031 = 2;
         ELSE IF H09031A = 4 THEN R09031 = 3;
         ELSE IF H09031A < 0 THEN R09031 = .;

         IF H09032A = 1      THEN R09032 = 1;
         ELSE IF H09032A = 2 THEN R09032 = 1;
         ELSE IF H09032A = 3 THEN R09032 = 2;
         ELSE IF H09032A = 4 THEN R09032 = 3;
         ELSE IF H09032A < 0 THEN R09032 = .;

         IF H09033A = 1      THEN R09033 = 1;
         ELSE IF H09033A = 2 THEN R09033 = 1;
         ELSE IF H09033A = 3 THEN R09033 = 2;
         ELSE IF H09033A = 4 THEN R09033 = 3;
         ELSE IF H09033A < 0 THEN R09033 = .;

         IF H09034A = 1      THEN R09034 = 1;
         ELSE IF H09034A = 2 THEN R09034 = 1;
         ELSE IF H09034A = 3 THEN R09034 = 2;
         ELSE IF H09034A = 4 THEN R09034 = 3;
         ELSE IF H09034A < 0 THEN R09034 = .;

         IF H09035A = 1      THEN R09035 = 1;
         ELSE IF H09035A = 2 THEN R09035 = 1;
         ELSE IF H09035A = 3 THEN R09035 = 2;
         ELSE IF H09035A = 4 THEN R09035 = 3;
         ELSE IF H09035A < 0 THEN R09035 = .;

         IF H09036A = 1      THEN R09036 = 1;
         ELSE IF H09036A = 2 THEN R09036 = 1;
         ELSE IF H09036A = 3 THEN R09036 = 2;
         ELSE IF H09036A = 4 THEN R09036 = 3;
         ELSE IF H09036A < 0 THEN R09036 = .;

         IF H09040A = 1      THEN R09040 = 1;
         ELSE IF H09040A = 2 THEN R09040 = 1;
         ELSE IF H09040A = 3 THEN R09040 = 2;
         ELSE IF H09040A = 4 THEN R09040 = 3;
         ELSE IF H09040A < 0 THEN R09040 = .;

         IF H09041A = 1      THEN R09041 = 1;
         ELSE IF H09041A = 2 THEN R09041 = 1;
         ELSE IF H09041A = 3 THEN R09041 = 2;
         ELSE IF H09041A = 4 THEN R09041 = 3;
         ELSE IF H09041A < 0 THEN R09041 = .;

         IF H09063 = 1           THEN R09063 = 5;
         ELSE IF H09063 = 2      THEN R09063 = 4;
         ELSE IF H09063 = 3      THEN R09063 = 3;
         ELSE IF H09063 = 4      THEN R09063 = 2;
         ELSE IF H09063 = 5      THEN R09063 = 1;
         ELSE IF H09063>5|H09063<1 THEN R09063 = .;

         *************************************************************************
         * Recode variables to one missing condition ".".
         * This also makes all the "H000xx" to "R000xx".
         *************************************************************************;
         R09011 = H09011A;  IF R09011 < 0 THEN R09011 = .;
         R09009 = H09009A;  IF R09009 < 0|R09009>10 THEN R09009 = .;
         R09013 = H09013A;  IF R09013 < 0 THEN R09013 = .;
         R09015 = H09015A;  IF R09015 < 0|R09015>10 THEN R09015 = .;
         R09027 = H09027A;  IF R09027 < 0 THEN R09027 = .;
```

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      R09029 = H09029A;  IF R09029 < 0 THEN R09029 = .;
      R09037 = H09037A;  IF R09037 < 0|R09037>10 THEN R09037 = .;
      R09043 = H09043A;  IF R09043 < 0 THEN R09043 = .;
      R09045 = H09045A;  IF R09045 < 0 THEN R09045 = .;
      R09047 = H09047A;  IF R09047 < 0 THEN R09047 = .;
      R09048 = H09048A;  IF R09048 < 0|R09048>10 THEN R09048 = .;
      R09071 = H09071; IF R09071<0 THEN R09071 = .;

      LABEL R09011   = "AC07_06 - Recoded CAHPS variable"
            R09009   = "AC05_06 - Recoded CAHPS variable"
            R09013   = "AC09_06 - Recoded CAHPS variable"
            R09015   = "AC11_06 - Recoded CAHPS variable"
            R09017   = "AC14_06 - Recoded CAHPS variable"
            R09022   = "AC19_06 - Recoded CAHPS variable"
            R09019   = "AC16_06 - Recoded CAHPS variable"
            R09027   = "AC24_06 - Recoded CAHPS variable"
            R09029   = "AC26_06 - Recoded CAHPS variable"
            R09030   = "AC27_06 - Recoded CAHPS variable"
            R09031   = "AC28_06 - Recoded CAHPS variable"
            R09032   = "AC29_06 - Recoded CAHPS variable"
            R09033   = "AC30_06 - Recoded CAHPS variable"
            R09034   = "AC31_06 - Recoded CAHPS variable"
            R09035   = "AC32_06 - Recoded CAHPS variable"
            R09036   = "AC33_06 - Recoded CAHPS variable"
            R09037   = "AC34_06 - Recoded CAHPS variable"
            R09043   = "AC40_06 - Recoded CAHPS variable"
            R09045   = "AC42_06 - Recoded CAHPS variable"
            R09047   = "AC48_06 - Recoded CAHPS variable"
            R09048   = "AC49_06 - Recoded CAHPS variable"
            R09063   = "AC50_06 - Recoded CAHPS variable"
            R09040   = "AC36_06 - Recoded CAHPS variable"
            R09041   = "AC37_06 - Recoded CAHPS variable"

            nPRODUCT  = "Product ID - CAHPS variable";
        ;
        drop product;
RUN;

TITLE1 "Recode Adult CAHPS Questions (6244-410)";
TITLE2 "Program Name: BENCHA02.SAS By Keith Rathbun";
TITLE3 "Program Input: BENCHA01.SAS7BDAT";
TITLE4 "Program Output: BENCHA02.SAS7BDAT";

PROC CONTENTS; RUN;

PROC FREQ;
TABLES  AGEGROUP
        XSEXA
        SREDHIGH
        MODEL
        R09011 * H09011A
        R09009 * H09009A
        R09013 * H09013A
        R09015 * H09015A
        R09017 * H09017A
        R09022 * H09022A
        R09019 * H09019A
        R09027 * H09027A
        R09029 * H09029A
        R09030 * H09030A
        R09031 * H09031A
        R09032 * H09032A
        R09033 * H09033A
        R09034 * H09034A
        R09035 * H09035A
        R09036 * H09036A
        R09037 * H09037A
        R09043 * H09043A
        R09045 * H09045A
        R09047 * H09047A
        R09048 * H09048A
        R09063 * H09063
        R09040 * H09040A
        R09041 * H09041A
```

```
    /MISSING LIST;
RUN;
```

```
  ******************************************************************************
  *
  * PROGRAM:  BENCHA03.SAS
  * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6244-410)
  * PURPOSE:  Adjust Adult CAHPS Benchmarks
  *
  * WRITTEN:  June 2000 BY ERIC SCHONE
  *
  * INPUTS:    1) BENCHA02.SD2 - 2005 Adult CAHPS Questions Renamed to be
  *               consistent with the 2006 MPR DOD Survey.
  *            2) GROUP8.SD2 - CAHPS Group8 (all beneficiaries) Dataset
  *
  * OUTPUTS:   1) Benchmark Composite Scores Data Sets
  *
  * MODIFIED: 1) Nov 2000 BY ERIC SCHONE - Output permanent datasets with
  *               scores and standard errors and process the rest of the
  *               composites and ratings.
  *            2) Dec 2000 BY KEITH RATHBUN - Update variable names for
  *               Q1 2000 Survey.
  *            3) Jan 2002 BY KEITH RATHBUN - Updated to run under SAS
  *               version 8 (changed INTERCEP to INTERCEPT).
  *            4) Apr 2002 BY MIKE SCOTT - Updated variable names for Q1
  *               2002 Survey.
  *            5) Jul 2002 BY MIKE SCOTT - Changed R00077 to R04075, since
  *               H02077 (health status) is back and was renamed to R04075
  *               in HSC022_1.sd2.
  *            6) Mar 2003 BY MIKE SCOTT - Updated for 2003 survey.
  *            7) May 2003 BY MIKE SCOTT - Changed ac03_01 to ac03_02.
  *            8) Jun 2003 BY MIKE SCOTT - Updated for Q2 2003.
  *            9) Oct 2003 BY MIKE SCOTT - Updated for Q3 2003.
  *           10) Mar 2004 BY MIKE SCOTT - Updated for Q1 2004.
  *           11) April 2004 BY KEITH RATHBUN - Updated to use the CAHPS 2003
  *               variable ac03_03.
  *           12) June 2004 BY REGINA GRAMSS - Updated to use for Q2 2004
  *           13) Sept 2004 BY REGINA GRAMSS - Update for Q3 2004
  *           14) May 2005 BY REGINA GRAMSS - Updated for Q1 2005
  *           15) Jul 2005 BY REGINA GRAMSS - Updated for Q2 2005
  *           16) Oct 2005 BY REGINA GRAMSS - Updated for Q3 2005
  *           17) Dec 2005 BY REGINA GRAMSS - Updated for Q4 2005
  *           18) 03/24/2006 BY KEITH RATHBUN, Updated for Q2 FY 2006.
  *               Changed variable names to match the 2006 HCSDB survey.
  *           19) 07/12/2006 by Justin Oh - Updated for Q3 FY 2006.
  *           20) 10/03/2006 by Justin Oh - Changed libname in2 for Q4FY2006.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           21) 12/18/2006 by Justin Oh - Changed libname in2 for Q1FY2007.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           22) 04/05/2007 by Justin Oh - Changed libname in2 for Q2FY2007.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           23) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
  *               ReportCards OR PurchasedReportCards.
  *           24) 04/05/2007 by Keith Rathbun - Changed libname in2 for Q3FY2007.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           25) 09/04/2007 by Justin Oh - Changed libname in2 for Q4FY2007.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           26) 01/10/2008 BY KEITH RATHBUN, Updated for Q1 FY 2008.
  *               Changed variable names to match the 2008 HCSDB survey.
  *           27) 04/11/2008 by Justin Oh - Changed libname in2 for Q2FY2008.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           28) 06/13/2008 by Keith Rathbun - Changed libname in2 for Q3FY2008.
  *               Change the INCLUDE path to CONVERT.sas file.
  *           29) April 10, 2009 by Mike Rudacille, changed variable names to reflect
  *               modifications to beneficiary reports necessary for V4
  *           30) Sept 30, 2009 by Mike Rudacille - Changed libname in2 for Q4FY2009.
  *               Change the INCLUDE path to CONVERT.sas file.
  *
  * NOTES:
  *
  * 1) Run this program after BENCHA01.SAS and BENCHA02.SAS.
  * 2) This program will generate the input for BENCHA04.SAS.
  *
```

```
      ******************************************************************************
      * Assign data libraries and options
      ******************************************************************************;

      /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards              ***/
      %LET RCTYPE = PurchasedReportCards;

      *libname in         "..\..\..\Q2FY2009\Programs\Benchmark\Data"; /*Use BENCHA02.sas7bdat from
      Q2fy2009*/
      libname in          "..\..\..\Q2FY2009\Programs\BenchmarkV4\Data";
      libname in2         "..\&RCTYPE\CAHPS_AdultQ4FY2009\Data";
      libname out         "Data";
      LIBNAME LIBRARY "..\..\DATA\AFINAL\FMTLIB";

      %let wgt=FWRWT;

      OPTIONS MLOGIC MPRINT NOCENTER MERGENOBY=WARN LS=132 PS=79;


      %macro comb(f,t,q,l);

      proc summary data=&f;
       var &t;
       where &q~=.;
       weight &wgt;
       output out=temp mean=&t;
      run;

      data temp;
       set temp;
       array old &t;
       call symput('z',left(dim(old)));
      run;

      data temp(drop=_type_ &t);
       set temp;
       array old &t;
       array new var1-var&z;
        do i=1 to &z;
         new(i)=old(i);
        end;
      run;

      data &q._&l;
       merge temp c_&q;
       array coeffs &t;
       array means var1-var&z;
        DO I = 1 TO DIM(COEFFS);
         IF COEFFS(I) = . THEN COEFFS(I) = 0;
         IF MEANS(I) = . THEN MEANS(I) = 0;
         ADJUST + ( COEFFS(I) * MEANS(I) );
        END;

       ADJUST = ADJUST + intercept;
       &q._&l=adjust;

      run;

      %mend comb;

      %macro adjust(x,y);



      proc summary data=setup;
      where &x>.;
       class product;

       output out=count;
      run;

      data count count2(rename=(_freq_=denom));
       set count;
       if _type_=0 then output count2;
```

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```
 else output count;
run;

data count(keep=pweight product);
 if _n_=1 then set count2;
 set count;
 pweight=denom/_freq_;
run;

data temp;
 merge count  setup; by product;

run;
proc summary data=temp;
where &x>.;
weight pweight;
var &y;
output out=temp2 mean=&y;
data temp2;
 set temp2;
 array old &y;
 call symput('z',left(dim(old)));
run;
data temp2(keep=var1-var&z);
 set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   new(i)=old(i);
  end;
run;
data temp;
set temp;
if _n_=1 then set temp2;
 array old &y;
 array new var1-var&z;
  do i=1 to &z;
   if old(i)=. then
    old(i)=new(i);
  end;
run;
proc reg data=temp outest=c_&x noprint;
 model &x=&y;
 weight pweight;
 output out=r_&x r=r_&x;
run;

proc sort data=r_&x; by product;
run;

PROC DESCRIPT DATA=r_&x DESIGN=STRWR NOPRINT;
 WEIGHT pweight;
 SETENV DECWIDTH=4;
 NEST product / missunit;
 VAR R_&x;
 OUTPUT  SEMEAN / TABLECELL=DEFAULT
 FILENAME=s_&x;
RUN;

data s_&x(rename=(semean=s_&x));
 set s_&x(keep=semean);
 %do i=1 %to 8;
  %if &i=8 %then %do;

   data group8;
    set in2.group5 in2.group6 in2.group7;
   run;
   %comb(group8,&y,&x,8);
  %end;
  %else %do;
   %comb(in2.group&i,&y,&x,&i);
  %end;
 %end;
```

```
%mend adjust;

/* adjust all the variables */

%macro comp(compno,a,b,c,d);
 %if &a~= %then %do;
  %let n=r_&a;
  %let m=s_&a;
  %do i=1 %to 8;
   %let p&i=&a._&i;
  %end;
  %let grpnum=1;
   proc sort data=r_&a;
    by mpid;
   run;
 %end;
 %if &b~= %then %do;
  %let n=%str(&n r_&b);
  %let m=%str(&m s_&b);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &b._&i);
  %end;
  %let grpnum=2;
   proc sort data=r_&b;
    by mpid;
   run;
 %end;
 %if &c~= %then %do;
  proc sort data=r_&c;
   by mpid;
  run;
  %let grpnum=3;
  %let n=%str(&n r_&c);
  %do i=1 %to 8;
   %let p&i=%str(&&p&i &c._&i);
  %end;
  %let m=%str(&m s_&c); %end;

  %if &d~= %then %do;
   proc sort data=r_&d;
    by mpid;
   run;
   %let grpnum=4;
   %let n=%str(&n r_&d);
    %do i=1 %to 8;
     %let p&i=%str(&&p&i &d._&i);
    %end;

    %let m=%str(&m s_&d);
  %end;

data infile;
 merge &n;
 by mpid;
run;

proc corr outp=outf noprint;
 var &n;
 weight pweight;
run;

data final;
 if _n_=1 then do;
  %if &a~= %then %do;
   set s_&a;
  %end;
  %if &b~= %then %do;
   set s_&b;
  %end;
  %if &c~= %then %do;
   set s_&c;
  %end;
  %if &d~= %then %do;
```

```
   set s_&d;
  %end;
 end;
 set  outf;
 call symput('s'||compress(_n_),substr(_name_,3));
 where _type_='CORR';
run;

data final;
 set final;
 array r_val &n;
 array s_val &m;
 sde=0;
 do i=1 to dim(s_val);
   %do i=1 %to &grpnum;
    if _name_="r_&&s&i" then
    sde=sde+r_val(i)*s_&&s&i*s_val(i);
   %end;
 end;
run;

data sefin&compno;
 set final end=last;
 tv+sde;
 if last then do;
 sde=(tv**.5)/&grpnum;
 output;
end;

%do i=1 %to 8;
 data temp(keep=&&p&i);
   merge &&p&i;
 run;

data output;
 set &&p&i;
 totadj+adjust;
run;

data output(keep=totadj);
 set output end=last;
 if last then do;
  totadj=totadj/&grpnum;
  output;
 end;
run;

data out&compno._&i;
 merge output temp;
run;

data out.comp&compno._&i;
   merge out&compno._&i
         sefin&compno;
run;

%end;

%mend comp;

/* create composites */
proc sort data=in.bencha02 out=setup;
 by product;
run;
data setup;
set setup;
if ^(model in (2,4));
if disp in ('M10','I10')  ;   ***KRR 04/19/04 Changed _02 to _03;
data setup;
 set setup; by product;
 mpid=_n_;
 if agegroup ne . then do;
 age1824=0; age2534=0; age3544=0; age4554=0; age5564=0; age6574=0;
```

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```
     if agegroup=1 then age1824=1;
 else if agegroup=2 then age2534=1;
 else if agegroup=3 then age3544=1;
 else if agegroup=4 then age4554=1;
 else if agegroup=5 then age5564=1;
 else if agegroup=6 then age6574=1;
 end;
 if agegroup<6;
run;
%INCLUDE "..\REPORTCARDS\CAHPS_AdultQ4FY2009\CONVERT.SAS";

%CONT2(DSN=SETUP, NUM=4,  Y=R09018 R09047 R09027 R09031);
%CONT3(DSN=SETUP, NUM=12, Y=R09007 R09010 R09029 R09033
                                  R09021 R09022 R09023 R09024
                                  R09040 R09041 R09045 R09046);
/* GETTING NEEDED CARE */
%adjust(R09029,age1824 age2534 age3544 age4554  R09063);
%adjust(R09033,age1824 age2534 age3544 age4554  R09063);
%comp(1,R09029,R09033);

/* GETTING NEEDED CARE QUICKLY */
%adjust(R09007,age1824 age2534 age3544 age4554  R09063);
%adjust(R09010,age1824 age2534 age3544 age4554  R09063);
%comp(2,R09007,R09010);

/* HOW WELL DOCTORS COMMUNICATE */
%adjust(R09021,age1824 age2534 age3544 age4554  R09063);
%adjust(R09022,age1824 age2534 age3544 age4554  R09063);
%adjust(R09023,age1824 age2534 age3544 age4554  R09063);
%adjust(R09024,age1824 age2534 age3544 age4554  R09063);
%comp(3,R09021,R09022,R09023,R09024);

/* CUSTOMER SERVICE */
%adjust(R09040,age1824 age2534 age3544 age4554  R09063);
%adjust(R09041,age1824 age2534 age3544 age4554  R09063);
%comp(4,R09040,R09041);

/* CLAIMS PROCESSING */
%adjust(R09045,age1824 age2534 age3544 age4554  R09063);
%adjust(R09046,age1824 age2534 age3544 age4554  R09063);
%comp(5,R09045,R09046);

/* RATING ALL HEALTH CARE: 0 - 10 */
%adjust(R09018,age1824 age2534 age3544 age4554  R09063);
%comp(6,R09018);

/* RATING OF HEALTH PLAN: 0 - 10 */
%adjust(R09047,age1824 age2534 age3544 age4554  R09063);
%comp(7,R09047);

/* RATING OF PERSONAL DR: 0 - 10 */
%adjust(R09027,age1824 age2534 age3544 age4554  R09063);
%comp(8,R09027);

/* SPECIALTY CARE */
%adjust(R09031,age1824 age2534 age3544 age4554  R09063);
%comp(9,R09031);
```

```
I.3.D   Q4FY2009\PROGRAMS\PURCHASEDBENCHMARK\BENCHA04.SAS - CONVERT THE BENCHMARK SCORES
        DATABASE INTO THE WEB LAYOUT - RUN QUARTERLY.


     ******************************************************************************
     *
     * PROGRAM:  BENCHA04.SAS
     * TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6401-904)
     * PURPOSE:  Convert the Benchmark Scores Database into the WEB layout
     *
     * WRITTEN:  06/01/2000 BY KEITH RATHBUN
     *
     * INPUTS:   1) Benchmark data sets with adjusted scores
     *              (COMPn_i.SD2 where n = composite number and i = group number)
     *
     * OUTPUT:   1) BENCHA04.SD2 - Combined Benchmark Scores Database in WEB layout
     *
     * INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
     *              and composite data sets
     *
     * MODIFIED: 1) Dec 2000 bY Keith Rathbun: Updated variable names for
     *              Q1 2000 Survey.  For the quarterly survey group 8 (all benes)
     *              is being used as the benchmark for all groups (1-8).  Thus,
     *              this group is copied and output to each of the other 7 groups.
     *           2) 01/23/2002 by Mike Scott: Updated variable names to be consistent
     *              with 2000 survey.
     *           4) 04/15/2002 by Mike Scott - Updated variable names for
     *              Q1 2002 Survey.
     *           5) 03/21/2003 by Mike Scott - Updated for 2003 survey.
     *           6) 06/26/2003 by Mike Scott - Updated for Q2 2003.
     *           7) 07/03/2003 by Mike Scott - Added TIMEPD variable to be set to the period
     *              or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
     *              setting to 'Composite'.
     *           8) 07/18/2003 by Mike Scott - Added TIMEPD to FREQ.
     *           9) 10/21/2003 by Mike Scott - Updated for Q3 2003.
     *          10) 03/23/2004 by Mike Scott - Updated for Q1 2004.
     *          11) 06/15/2004 by Regina Gramss - Updated for Q2 2004.
     *          12) 09/2004    by Regina Gramss - Updated for Q3 2004.
     *          13) 05/2005    by Regina Gramss - Updated for Q1 2005.
     *          14) 10/2005    by Regina Gramss - Updated for Q3 2005.
     *          15) 03/24/2006 by Keith Rathbun - Updated for Q2 FY 2006.
     *              Added MACRO loop to process the 8 groups.
     *          16) 10/03/2006 by Justin Oh - Updated BENTYPE composite year to 2006 Q3.
     *          17) 12/18/2007 by Justin Oh - Updated BENTYPE composite year to 2006 Q4.
     *          18) 04/05/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q1.
     *          19) 04/05/2007 by Justin Oh - Updated LIBNAME IN2 to be used for purchase RC
programs.
     *          20) 09/04/2007 by Justin Oh - Updated BENTYPE composite year to 2007 Q3.
     *          21) 01/10/2008 by Keith Rathbun - Updated for Q1 FY 2008.
     *          22) 04/11/2008 by Justin Oh - Updated BENTYPE composite year to 2008 Q1.
     *          23) 06/13/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q2.
     *          24) 09/29/2008 by Keith Rathbun - Updated BENTYPE composite year to 2008 Q3.
     *          25) 04/10/2009 by Mike Rudacille - Changed variable names to reflect
     *              modifications to beneficiary reports necessary for V4
     *          26) 09/30/2009 by Mike Rudacille - Updated BENTYPE composite year to 2009 Q3.
     *
     * NOTES:
     *
     * 1) The following steps need to be run prior to this program:
     *    - BENCHA01.SAS - Extract Benchmark variables
     *    - BENCHA02.SAS - Recode Benchmark variables
     *    - BENCHA03.SAS - Construct Scores and SEMEAN datasets
     *
     * 2) The output file (BENCHA04.SAS7BDAT) will be run through the
     *    MAKEHTML.SAS program to generate the WEB pages.
     *
     ******************************************************************************
     * Assign data libraries and options
     ******************************************************************************;
     LIBNAME IN  "DATA";
     LIBNAME IN2 "qpredtest";
     LIBNAME OUT "DATA";
     LIBNAME LIBRARY  "..\..\DATA\AFINAL\FMTLIB";
```

```
OPTIONS PS=79 LS=132 COMPRESS=NO NOCENTER;

*****************************************************************************
* Load Format definitions for CAHPS Individual and composite data sets.
*****************************************************************************;
%INCLUDE "..\LOADWEB\LOADCAHQ.INC";

*****************************************************************************
*****************************************************************************
*
* Process Macro Input Parameters:
*
* 1) CNUM = Composite or rating variable number (1-10)
* 2) GNUM = Group number (1-8)
* 3) NVAR = Number of variables in the composite
* 4) VARS = List of individual variables for composite
* 5) SE   = List of individual standard error variables
*
* _____
*    Adjusted Score           Definitions
*    Group Number
* _____
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004_R>=7
* 2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004_R>=7
* 3. Enrollees w/civ PCM       XENR_PCM = 3        AND H09004_R>=7
* 4. Nonenrollees             XINS_COV IN (3,4,5)
* 5. Active duty              BFGROUPP = 1
* 6. Active duty dependents   BFGROUPP = 2
* 7. Retirees and dependents  BFGROUPP IN (3,4)
* 8. All Beneficiaries
*
*****************************************************************************;
%MACRO PROCESS(CNUM=, GNUM=, NVAR=, VARS=, SE=);
*****************************************************************************
* Assign value for BENTYPE composite year
*****************************************************************************;
%LET YEAR = "2009 Q3"; * Note that this is based on Calendar Year here;

*****************************************************************************
* Convert benchmark scores datasets into WEB layout.
*****************************************************************************;
%IF &CNUM<6 %THEN %DO;

  DATA INP;
    SET IN2.COMP&CNUM;
     WHERE X=&GNUM;



   DATA INP;
     SET INP  IN2.PROJERR&GNUM;
     RENAME SE=SESX;
RUN;
%END;
%ELSE %DO;

   DATA INP;
     SET IN2.PROJERR&GNUM;
     RENAME SE=SESX;
RUN;
%END;


   DATA COMP&CNUM._&Gnum;
      SET INP;
     IF _N_=1 THEN
     SET IN.COMP&CNUM._&GNUM;
      LENGTH MAJGRP  $30;
      LENGTH REGION  $25;
      LENGTH REGCAT  $26;
      LENGTH BENTYPE $50;
      LENGTH BENEFIT $34;
```

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```
      LENGTH TIMEPD  $35;   ***MJS 07/03/03 Added line;

      ***********************************************************************
      * For now, assign SIG = 0
      ***********************************************************************;
      SIG = 0;

      ***********************************************************************
      * Assign major group
      ***********************************************************************;
      MAJGRP  = PUT(&Gnum,MAJGRPF.);

      ***********************************************************************
      * Assign Region and Regcat
      ***********************************************************************;
      REGION  = "Benchmark";
      REGCAT  = "Benchmark";

      ***********************************************************************
      * Assign benefit and benefit type
      ***********************************************************************;
      IF      &CNUM = 1  THEN BENEFIT = "Getting Needed Care";
      ELSE IF &CNUM = 2  THEN BENEFIT = "Getting Care Quickly";
      ELSE IF &CNUM = 3  THEN BENEFIT = "How Well Doctors Communicate";
      ELSE IF &CNUM = 4  THEN BENEFIT = "Customer Service";
      ELSE IF &CNUM = 5  THEN BENEFIT = "Claims Processing";
      ELSE IF &CNUM = 6  THEN BENEFIT = "Health Care";
      ELSE IF &CNUM = 7  THEN BENEFIT = "Health Plan";
      ELSE IF &CNUM = 8  THEN BENEFIT = "Primary Care Manager";
      ELSE IF &CNUM = 9  THEN BENEFIT = "Specialty Care";

      BENTYPE = "Composite";   ***MJS 07/03/03 Changed from BENTYPE = PUT(&YEAR,$BENTYPF.);
      TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
       IF &CNUM<6 THEN DO;
          IF X=&GNUM THEN DO;
      ***********************************************************************
      * Assign composite score and SEMEAN
      ***********************************************************************;
             SCORE = TOTADJ;
             SEMEAN = SQRT(SDE**2+SESX**2);

      ***********************************************************************
      * Output composite score record for each REGION
      ***********************************************************************;
             OUTPUT;
          END;
       END;
      ***********************************************************************
      * Now, output the individual score records
      ***********************************************************************;
      IF &NVAR GT 1|&CNUM>5 THEN DO;
         ARRAY ITEMS &VARS;
         ARRAY SE    &SE;
         LENGTH NAME $8;
         DO I = 1 TO DIM(ITEMS); DROP I;
             CALL VNAME(ITEMS(I),NAME);
             NAME = SUBSTR(NAME,1,6);
             SCORE  = ITEMS(I);
             SEMEAN = SQRT(SE(I)**2+SESX**2);
             IF &NVAR GT 1 THEN
             BENTYPE = PUT(NAME,$BENTYPF.);
             TIMEPD = PUT(&YEAR,$BENTYPF.);   ***MJS 07/03/03 Added;
            IF COMPRESS(UPCASE(NAME))=COMPRESS(UPCASE(VAR)) THEN OUTPUT;
         END;
      END;

      KEEP MAJGRP
          REGION
          REGCAT
          BENTYPE
          BENEFIT
          TIMEPD  /*MJS 07/03/03 Added*/
          SEMEAN
          SCORE
```

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```
         SIG
      ;
   RUN;

%MEND;


******************************************************************************
******************************************************************************
* Process each of the 8 Groups.
******************************************************************************
******************************************************************************;
%MACRO DOIT;
%DO I = 1 %TO 8;
   ******************************************************************************
   * COMPOSITE # 1.
   * GETTING NEEDED CARE VARIABLES.
   ******************************************************************************;
   %PROCESS(CNUM=1, GNUM=&I, NVAR=2, VARS=R09029_&I R09033_&I,
        SE=S_R09029 S_R09033);


   ******************************************************************************
   * COMPOSITE # 2.
   * GETTING CARE QUICKLY VARIABLES.
   ******************************************************************************;
   %PROCESS(CNUM=2, GNUM=&I, NVAR=2, VARS=R09007_&I R09010_&I,
        SE=S_R09007 S_R09010);


   ******************************************************************************
   * COMPOSITE # 3.
   * HOW WELL DOCTORS COMMUNICATE.
   ******************************************************************************;
   %PROCESS(CNUM=3, GNUM=&I, NVAR=4, VARS=R09021_&I R09022_&I R09023_&I R09024_&I,
        SE=S_R09021 S_R09022 S_R09023 S_R09024);


   ******************************************************************************
   * COMPOSITE # 4.
   * CUSTOMER SERVICE.
   ******************************************************************************;
   %PROCESS(CNUM=4, GNUM=&I, NVAR=2, VARS=R09040_&I R09041_&I,
        SE=S_R09040 S_R09041);


   ******************************************************************************
   * COMPOSITE # 5.
   * CLAIMS PROCESSING.
   ******************************************************************************;
   %PROCESS(CNUM=5, GNUM=&I, NVAR=2, VARS=R09045_&I R09046_&I,
        SE=S_R09045 S_R09046);


   ******************************************************************************
   * INDIVIDUAL # 1.
   * RATING OF ALL HEALTH CARE: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=6, GNUM=&I, NVAR=1, VARS=R09018_&I, SE=S_R09018);


   ******************************************************************************
   * INDIVIDUAL # 2.
   * RATING OF HEALTH PLAN: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=7, GNUM=&I, NVAR=1, VARS=R09047_&I, SE=S_R09047);


   ******************************************************************************
   * INDIVIDUAL # 3.
   * RATING OF PERSONAL DOCTOR: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=8, GNUM=&I, NVAR=1, VARS=R09027_&I, SE=S_R09027);


   ******************************************************************************
   * INDIVIDUAL # 4.
   * SPECIALTY CARE: 0 - 10.
   ******************************************************************************;
   %PROCESS(CNUM=9, GNUM=&I, NVAR=1, VARS=R09031_&I, SE=S_R09031);
%END;
%MEND DOIT;
%DOIT;
```

```
        ****************************************************************************
        ****************************************************************************
        * STACK up all of the files into one final output dataset.
        ****************************************************************************
        ****************************************************************************;
        DATA OUT.BENCHA04;
           SET COMP1_1  COMP1_2  COMP1_3  COMP1_4  COMP1_5  COMP1_6  COMP1_7  COMP1_8
               COMP2_1  COMP2_2  COMP2_3  COMP2_4  COMP2_5  COMP2_6  COMP2_7  COMP2_8
               COMP3_1  COMP3_2  COMP3_3  COMP3_4  COMP3_5  COMP3_6  COMP3_7  COMP3_8
               COMP4_1  COMP4_2  COMP4_3  COMP4_4  COMP4_5  COMP4_6  COMP4_7  COMP4_8
               COMP5_1  COMP5_2  COMP5_3  COMP5_4  COMP5_5  COMP5_6  COMP5_7  COMP5_8
               COMP6_1  COMP6_2  COMP6_3  COMP6_4  COMP6_5  COMP6_6  COMP6_7  COMP6_8
               COMP7_1  COMP7_2  COMP7_3  COMP7_4  COMP7_5  COMP7_6  COMP7_7  COMP7_8
               COMP8_1  COMP8_2  COMP8_3  COMP8_4  COMP8_5  COMP8_6  COMP8_7  COMP8_8
               COMP9_1  COMP9_2  COMP9_3  COMP9_4  COMP9_5  COMP9_6  COMP9_7  COMP9_8
           ;
           IF SCORE = . THEN DELETE;
        RUN;

        TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
        TITLE2 "Program Name: BENCHA04.SAS By Keith Rathbun";
        TITLE3 "Program Inputs: Benchmark Individual and Composite data sets with adjusted scores";
        TITLE4 "Program Outputs: BENCHA04.SAS7BDAT - Combined Benchmark Scores Database in WEB
layout";

        PROC CONTENTS; RUN;

        PROC FREQ;
        TABLES TIMEPD BENEFIT BENTYPE MAJGRP REGION REGCAT
               REGION*REGCAT
              /MISSING LIST;
        RUN;
```

```
         *****************************************************************
         *  Project:   DoD Reporting and Analysis 6077-410
         *  Program:   PRVCOMPQ.SAS
         *  Author:    Chris Rankin
         *  Date:      12/22/2000
         *  Modified:  4/19/2001 By Keith Rathbun: Restrict population to
         *             xins_cov in(1,2,3,6).  Use POSTSTR instead of
         *             adj_cell.
         *  Modified:  10/25/01 By Daniele Beahm: Because no poststratification
         *             was done for q3 2000, changed POSTSTR back to ADJ_CELL
         *             04/09/02 modified macros the first three macros to create
         *             temporary datasets (instead of writing permanent datasets)
         *             07/15/02 By Mike Scott: Changed HCS021 to HCS022 for Q2 2002.
         *             01/12/03 By Mike Scott: Changed ADJ_CELL to COM_SAMP.
         *             03/21/03 By Mike Scott: Changed HCS024 to HCS031 for Q2 2002.
         *             04/01/03 By Mike Scott: Replaced HP_FLU with HP_CHOL.
         *             04/30/03 By Mike Scott: Changed COM_SAMP to ADJ_CELL.  Changed
         *             CMPNUM1 from 4 to 5 and CMPNUM2 from 4 to 3.
         *             06/13/03 By Eric Schone.  Changed composite mean & std err calculations
         *             to use weights from 2000 input data.
         *             07/23/03 By Mike Scott: Removed ..\PROGRAMS\ from INCLUDE.
         *             10/21/03 By Mike Scott: Updated for Q3 2003.
         *             01/07/04 By Mike Scott: Updated for Q4 2003.
         *             02/02/04 By Mike Scott: Set PRVVAR6, PRVVAR7, and PRVVAR8 in DATA NORMDATA
         *             to H04023, H04020, and H04031.
         *             03/24/04 By Mike Scott: Updated for Q1 2004.
         *             04/09/04 By Keith Rathbun: Added Service Affiliation variables to
         *             accomodate the consumer watch.
         *             06/22/04 By Regina Gramss: Updated for Q2 2004.
         *             09/2004  By Regina Gramss: Updated for Q3 2004, to use XTNEXREG
         *                                 vs. XREGION
         *             01/2005 By Regina Gramss: Updated to create "Last conus_q" for
         *                     Q4 2004, replace XTNEXREG with XSERVREG
         *             04/2005 By Regina Gramss: Updated for Q1 2005 (update 2004 field names)
         *             07/2005 By Regina Gramss: updated for Q2 2005
         *             10/2005 By Regina Gramss: Updated for Q3 2005
         *             12/2005 By Regina Gramss: Updated for Q4 2005
         *             03/24/2006 By Keith Rathbun: Updated for Q2 FY 2006.  Changed reference
         *             to ADJ_CELL in 2006 data to be STRATUM.
         *             07/2006 By Justin Oh: updated for Q2 FY 2006
         *             08/22/2006 By Justin Oh
         *                     Changed XSERVREG for Overseas
         *                     Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
         *                             IF XINS_COV IN (3)     THEN GROUP4 = 1
         *                             Since only XINS_COV IN (1,2,3,6) is kept.
         *                     Create XOCONUS for 2005 data.
         *                     Added XREGION in the keep statement for NORMDATA.
         *             10/04/2006 By Justin Oh Updated %LET INDATA and YRDATA.
         *             11/15/2006 By Justin Oh Added FIELDAGE in 4 keep statements
         *             12/22/2006 By Justin Oh Updated %LET INDATA and YRDATA HCS071_1.
         *             04/05/2007 By Justin Oh Updated %LET INDATA and YRDATA HCS072_1.
         *             04/05/2007 By Justin Oh Added conditions for RC types
         *                     ReportCards OR PurchasedReportCards.
         *             05/10/2007 By Justin Oh, Added codes, variables for new reservists logic for
         *                     both Norm and Quarter datasets.
         *             05/15/2007 By Justin Oh, Changed XINS_COV to NXNS_COV to assign
         *                     Groups 1,3, and 4 for new reservists logic.
         *             07/30/2007 By Justin Oh, Added added DBENCAT conditions to assign
         *                     Groups All, 4, 5, and 6.
         *             09/04/2007 By Justin Oh Updated %LET INDATA and YRDATA HCS074_1.
         *             01/10/2008 By Keith Rathbun, Updated %LET INDATA and YRDATA HCS081_1.
         *                     Also changed H07 variable names to be H08 to match 2008 survey
         *             04/11/2008 By Justin Oh Updated %LET INDATA and YRDATA HCS082_1.
         *             06/13/2008 By Keith Rathbun Updated %LET INDATA and YRDATA HCS083_1.
         *             04/20/2009 By Mike Rudacille Changed RCTYPE and certain variable names for
         *                     transition to V4 questionnaire.
         *             06/22/2009 By Keith Rathbun Updated %LET INDATA and YRDATA HCS093_1.
         *             09/30/2009 By Mike Rudacille Updated %LET INDATA and YRDATA HCS094_1.
         *
         *  Purpose:   Calculate MPR Preventive Care Composites
```

```
*  Input:      HCSyyq_1.sas7bdat
*  Output:     RFINAL.sas7bdat
*              CFINAL.sas7bdat
*              MFINAL.sas7bdat
*              SFINAL.sas7bdat
*
*  Include
*   Files:     LOADCAHPQ.INC
*   Notes:     Next program is Loadmprq.sas
*
*              ***CHECK PARAMETER ASSIGNMENTS***
******************************************************************;

OPTIONS NOCENTER LS=124 PS=74 SOURCE SOURCE2 MLOGIC MPRINT
        NOFMTERR COMPRESS=YES;

/*** SELECT PROGRAM - ReportCards OR PurchasedReportCards          ***/
%LET RCTYPE = PurchasedReportCards;

LIBNAME IN              "..\..\..\DATA\AFINAL";
LIBNAME INNORM  v612 "..\..\..\..\2005\DATA";
LIBNAME OUT         ".";
LIBNAME LIBRARY       "..\..\..\DATA\AFINAL\FMTLIB";

%LET WGT=FWRWT;
%LET NORMWGT = CFWT;
%LET NORMDAT = HCS05A_1;

%LET DEBUG=Y;       /** Set to Y for Debug print of datasets **/
%LET INDATA=HCS094_1;

%LET YRDATA=HCS094_1;

/***** The following parameters are used in the Variance ****/
/***** calcuation macro for region and catchment area    ****/

%LET GRPNUM=8;      /** number of groups          **/
%LET COMPNUM=7;     /** number of variables       **/  /* RSG - 04/2005 changed from 8 to 7
(eliminate cholesterol*/
%LET REGNUM=15;     /** number of regions         **/  /* RSG - 01/2005 CHANGED TO FIT THE
16 CATEGORIES OF XSERVREG */
                                                   /* JSO 08/24/2006 (16 TO 15) Changed
Overseas Regions*/
%LET CATCHNUM=9999; /** number of catchment areas **/

%LET CMPNUM1=4;     /** number of variables in first composite  **/   /*RSG 04/2005 Changed
CMPNUM1 from 5 to 4*/
%LET CMPNUM2=3;     /** number of variables in second composite **/   /*MJS 04/30/03 Changed
CMPNUM2 from 4 to 3*/

%LET COMPCNT=2;     /** number of composites                    **/

**** set up benchmarks for preventive services ;
**** note -- these are the hp 2000 goals         ;

%LET GOALVAR1= .90;    /** HP Goal for prenatal care         **/
%LET GOALVAR2= .70;    /** HP Goal for Mammography           **/
%LET GOALVAR3= .90;    /** HP Goal for Papsmear              **/
%LET GOALVAR4= .95;    /** HP Goal for Blood Pressure check **/
%LET GOALVAR5= .90;    /** access goals                      **/ /*04/2005 - RSG: DELETED
CHOLESTEROLE GOAL*/
%LET GOALVAR6= .90;
%LET GOALVAR7= .98;

%INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";

************************************************************;
* Beneficiary group note
*     Eight groups              Definitions
* _____;
* 1. Prime enrollees          XINS_COV IN (1,2,6) AND H09004>=2
* 2. Enrollees w/mil PCM       XENR_PCM IN (1,2,6) AND H09004>=2
* 3. Enrollees w/civ PCM       XENR_PCM IN (3,7)   AND H09004>=2
* 4. Nonenrollees              XINS_COV IN (3) /*JSO 08/24/2006, Deleted 4,5*/
```

```
     * 5. Active duty              XBNFGRP = 1
     * 6. Active duty dependents    XBNFGRP = 2
     * 7. Retirees                  XBNFGRP IN (3,4)
     * 8. All beneficiaries         ALL
     **************************************************************;


     /**** note -- output all data to a single dataset for macro */
     /**** call                                              */
     /**** MACROS are no longer called for catchment areas    */

     /* 08/24/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
     LIBNAME LIBRARY '..\..\..\..\2005\Data\fmtlib';

     DATA NORMDATA(KEEP=XTNEXREG XSERVREG &WGT PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                        DENV1-DENV&COMPNUM XSERVAFF FIELDAGE);
                        /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

        set INNORM.&NORMDAT(KEEP=MPRID XINS_COV HP_BP HP_MAMOG HP_PAP HP_PRNTL XTNEXREG
                            XENR_PCM XBNFGRP ENBGSMPL &NORMWGT ADJ_CELL DBENCAT
                             H05022 H05019 H05030 H05007 H05006 SERVAFF XREGION FIELDAGE);
                        /* 08/24/2006 JSO Added XREGION in the keep statement to get XOCONUS
     */
                        /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                        /* 05/10/2007 JSO Added H05006, DBENCAT in the keep statement */

     ******************************************************************************
     * For quarterly reports, catchment level reporting is not done
     * so the value of cellp is set to 1.
     * For annual reporting purposes, cellp will need to be assigned
     * to geocell
     ******************************************************************************;

     /*RSG 02/2005 Added codes to define XTNEXREG & XSERVAFF*/

       IF SERVAFF = 'A' THEN XSERVAFF = 1;         *Army;
       ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;    *Air Force;
       ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;    *Navy;
       ELSE XSERVAFF = 4;                          *Other/unknown;

       IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

       IF XTNEXREG = . THEN DELETE;

       IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

       NXNS_COV = XINS_COV;                  /*JSO 04/26/2007 added for reservists logic*/
                                             /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
       IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
       IF DBENCAT IN('GRD','IGR') AND H05006 = 3 THEN DO;
          NXNS_COV = 3;
          XENR_PCM = .;
       END;

       PRVVAR1=HP_PRNTL;          /** prenatal care  **/
       PRVVAR2=HP_MAMOG;          /** mammography    **/
       PRVVAR3=HP_PAP;            /** papsmear       **/
       PRVVAR4=HP_BP;             /** blood pressure **/
       PRVVAR5=H05022;            /** access var 1   **/
       PRVVAR6=H05019;            /** access var 2   **/
       PRVVAR7=H05030;            /** access var 3   **/

     /**** set up numerator and denominator for proportions ****/

       ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
       ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
       ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

       DO I = 1 TO &COMPNUM;
          IF I LE  &CMPNUM1 THEN DO;
             IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
             ELSE NUMER(I)=0;
             IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
          END;
```

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```
      ELSE IF I GT &CMPNUM1 THEN DO;
         IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) > 0 THEN DENOM(I)=1;
      END;
   END;
   DROP I;
   DENV4=1;

   /* 08/22/2006, JSO Create XOCONUS for 2005 data */
      IF     XREGION=13 THEN XOCONUS=1;
      ELSE IF XREGION=14 THEN XOCONUS=2;
      ELSE IF XREGION=15 THEN XOCONUS=3;

   /*RSG 02/2005 Added codes to define XSERVREG CACSMPL*/

      IF XTNEXREG = 1 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 1;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
         ELSE XSERVREG = 4;
      END;

      IF XTNEXREG = 2 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 5;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
         ELSE XSERVREG = 8;
      END;

      IF XTNEXREG = 3 THEN DO;
         IF XSERVAFF = 1 THEN XSERVREG = 9;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
         ELSE XSERVREG = 12;
      END;

      IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
         IF     XOCONUS = 1 THEN XSERVREG = 13;
        ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
        ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
      END;

      RENAME &NORMWGT = &WGT;
   run;

   /* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
   LIBNAME LIBRARY  "..\..\..\Data\Afinal\fmtlib";

   DATA &YRDATA(KEEP=BGROUP MHS USA XSERVAFF CACSMPL &WGT TMP_CELL
                  PRVVAR1-PRVVAR&COMPNUM. NUMV1-NUMV&COMPNUM.
                  DENV1-DENV&COMPNUM XTNEXREG XSERVREG FIELDAGE);
                  /* 11/15/2006 JSO Added FIELDAGE in the keep statement */

      SET  IN.&INDATA(KEEP=XINS_COV HP_BP XTNEXREG HP_MAMOG HP_PAP HP_PRNTL    /*RSG 04/2005
DELETE HP_CHOL*/
                        XREGION SERVAFF XENR_PCM XBNFGRP ENBGSMPL &WGT CACSMPL
                        STRATUM H09010 H09007 /*H09030A*/ H09004 H09003 D_HEALTH FIELDAGE
DBENCAT);
                        /* 11/15/2006 JSO Added FIELDAGE in the keep statement */
                        /* 05/10/2007 JSO Added H07006, DBENCAT in the keep statement */

   ****************************************************************************
   * For quarterly reports, catchment level reporting is not done
   * so the value of cellp is set to 1.
   * For annual reporting purposes, cellp will need to be assigned
   * to geocell
   ***************************************************************************;
   IF SERVAFF = 'A' THEN XSERVAFF = 1;        *Army;
   ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
   ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;   *Navy;
   ELSE XSERVAFF = 4;                         *Other/unknown;

   CELLP = 1;
```

```
   LENGTH TMP_CELL 8;
   TMP_CELL = STRATUM;    /* Make STRATUM a numeric variable */

   IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

   IF XTNEXREG = . THEN DELETE;

   IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

   NXNS_COV = XINS_COV;   /*JSO 05/14/2007 added for reservists logic*/
                          /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
   IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
   IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
      NXNS_COV = 3;
      XENR_PCM = .;
   END;

   PRVVAR1=HP_PRNTL;         /** prenatal care  **/
   PRVVAR2=HP_MAMOG;         /** mammography    **/
   PRVVAR3=HP_PAP;           /** papsmear       **/
   PRVVAR4=HP_BP;            /** blood pressure **/
   /*RSG 04/2005 - delete cholesterol, renumber PRVVAR below*/
   PRVVAR5=H09010;           /** access var 1   **/
   PRVVAR6=H09007;           /** access var 2   **/
*  PRVVAR7=H09030A;          /** access var 3   **/
/* MER temporary workaround 06/30/09 */
   PRVVAR7=2;

/**** set up numerator and denominator for proportions ****/

   ARRAY PRVVAR(*) PRVVAR1-PRVVAR&COMPNUM;
   ARRAY  NUMER(*) NUMV1-NUMV&COMPNUM;
   ARRAY  DENOM(*) DENV1-DENV&COMPNUM;

   DO I = 1 TO &COMPNUM;
      IF I LE  &CMPNUM1 THEN DO;
         IF PRVVAR(I) = 1 THEN NUMER(I) = 1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) IN (1, 2) THEN DENOM(I)=1;
      END;
      ELSE IF I GT &CMPNUM1 THEN DO;
         IF PRVVAR(I) IN (1, 2) THEN NUMER(I)=1;
         ELSE NUMER(I)=0;
         IF PRVVAR(I) > 0 THEN DENOM(I)=1;
      END;
   END;
   DROP I;
   DENV4=1;

   MHS= 1;   /* set up dummy for MHS-- include all observations */

 /* 08/22/2006, JSO Create XOCONUS for 2005 data */
   IF      XREGION=13 THEN XOCONUS=1;
   ELSE IF XREGION=14 THEN XOCONUS=2;
   ELSE IF XREGION=15 THEN XOCONUS=3;

   IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
      ELSE XSERVREG = 4;
   END;

   IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 5;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
      ELSE XSERVREG = 8;
   END;

   IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 9;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
```

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```
         ELSE XSERVREG = 12;
       END;

       IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
          IF      XOCONUS = 1 THEN XSERVREG = 13;
          ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
          ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
       END;

    ******************************************************************************
    * Assign indicator of CONUS based on XTNEXREG.  CONUS stands for
    * Contential United States it but includes both Alaska and Hawaii.
    * 1/16/09 Changed CONUS to USA.
    ******************************************************************************;
       IF XTNEXREG IN (1,2,3) THEN USA=1;                               /*RSG 01/2005 OVERALL
CONUS*/

       ELSE IF XTNEXREG = 4 THEN USA=2;

    * Prime enrollees     *;

       IF (NXNS_COV IN (1,2,6) AND H09004>=2) THEN DO;
          BGROUP=1;
          OUTPUT;
       END;

    * Enrollees with military PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
          (XENR_PCM IN (1,2,6) AND H09004>=2) THEN DO;
          BGROUP=2;
          OUTPUT;
       END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
          (XENR_PCM IN (1,2) AND H09004>=2) THEN DO;
          BGROUP=2;
          OUTPUT;
       END;

    * Enrollees with civilian PCMs *; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
          (XENR_PCM IN (3,7) AND H09004>=2) THEN DO;
          BGROUP=3;
          OUTPUT;
       END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
          ((XENR_PCM IN (3) AND H09004>=2) OR NXNS_COV IN (3,9)) THEN DO;   /*JSO 07/30/2007,
Added 9*/
          BGROUP=3;
          OUTPUT;
       END;

    * Nonenrollees *;

       IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
          BGROUP=4;                  /*JSO 07/30/2007, Added 9*/
          OUTPUT;
       END;

    * Active duty       *;

       IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
          BGROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
          OUTPUT;
       END;

    * Active duty dependents  *;

       IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
          BGROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
          OUTPUT;
       END;

    * Retirees  *;
```

```
     IF XBNFGRP IN (3,4) THEN DO;
        BGROUP=7;
        OUTPUT;
     END;

  * All beneficiaries *;

    BGROUP=8;
    OUTPUT;
  RUN;


  DATA HCSDB;
  SET &YRDATA;
  RUN;

  ********************************************************
  *** First, calculate standard errors and create     ***
  *** a file for each analytical unit                  ***
  ********************************************************;

  PROC SORT DATA=HCSDB; BY TMP_CELL;
  RUN;

  ********************************************************
  ***** Sudaan macro to calculate standard errors  *****
  ***** there are three output datasets created     *****
  ***** (XTNEXREG, XSERVREG, MHS, XSERVAFF)                  *****
  ***** Note:  7/10/2000 use CONUS for MHS          *****
  ***** Note:  there are 8 variables and 8 groups   *****
  ***** Note:  1/16/09 Changed CONUS to USA         *****
  ********************************************************;

  %MACRO A_SUDAAN(TABLEVAR);

  *** set the number of levels in the proc descript ***;
  *** for region or catchment                       ***;

   %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
       %LET ENDNUM=4;
       %LET PREF=S;          /** dataset prefix for service affiliation data    **/
    %END;
    %IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
       %LET ENDNUM=&REGNUM;
       %LET PREF=R;          /** dataset prefix for region data    **/
    %END;
    %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %LET PREF=C;            /** dataset prefix for
catchement area data **/

    %ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
       %LET ENDNUM=4;     /** RSG 01/2005 Change level of conus to 4 **/
       %LET PREF=M;
    %END;

    %DO I=1 %TO &GRPNUM;     /** 8 groups    **/

        %DO J=1 %TO &COMPNUM;   /** 7 variables **/

            DATA INDATA&I.&J(KEEP=&WGT MHS USA XSERVAFF XTNEXREG XSERVREG CACSMPL
                             XSERVAFF NUMV&J DENV&J TMP_CELL);
              SET HCSDB;
              WHERE XSERVREG > 0 AND BGROUP=&I AND DENV&J > 0;
              %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
                  IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;  /*RSG 01/2005 Delete Conus
greater than 4 which are not conus */
              %END;
                 %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
                     IF USA NE 1 THEN DELETE;
                 %END;
                 %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
                     IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
                 %END;

            RUN;
```

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```
*** Calculate values for regions, catchment areas ****;

        %IF %UPCASE(&TABLEVAR) NE USA %THEN %DO;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUMV&J;
                TABLES &TABLEVAR;
                SUBGROUP &TABLEVAR;
                LEVELS &ENDNUM;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
                FILENAME=&PREF.GRP&I.V&J;
            RUN;

        %END;
        %ELSE %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;

**** No tables, levels, or subgroups needed ****;

            PROC DESCRIPT DATA=INDATA&I.&J DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / MISSUNIT;
                VAR NUMV&J;
                OUTPUT SEMEAN/ TABLECELL=DEFAULT
                FILENAME=&PREF.GRP&I.V&J;
            RUN;

        %END;

***** first, put all variables into one dataset for each group *****;

        DATA &PREF.GRP&I.V&J;
            SET &PREF.GRP&I.V&J;
            IF SEMEAN NE .;
            MHS=1;
            %IF %UPCASE(&TABLEVAR)=USA %THEN %DO;
                USA=1;
            %END;
        RUN;

        %IF &J=1 %THEN %DO;
            DATA &PREF.SEGRP&I;
                SET &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                GROUP=&I;
                IF SEMEAN NE .;
                RENAME SEMEAN = SERRV&J;
            RUN;
        %END;
        %ELSE %DO;
            DATA &PREF.SEGRP&I;
                MERGE &PREF.SEGRP&I &PREF.GRP&I.V&J(KEEP=&TABLEVAR SEMEAN);
                BY &TABLEVAR;
                GROUP=&I;
                RENAME SEMEAN = SERRV&J;
            RUN;
        %END;
    %END;

***** Put all data into one dataset  *****
***** Note:  changed output dataset  *****
***** to include group               *****;

    %IF &I=1 %THEN %DO;

        DATA &PREF.SERR;
            SET &PREF.SEGRP&I;
            KEEP GROUP &TABLEVAR SERRV1-SERRV&COMPNUM;
        RUN;
    %END;
    %ELSE %DO;
```

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```
              DATA &PREF.SERR;
                  SET &PREF.SERR
                  &PREF.SEGRP&I;
              RUN;
          %END;

      ******** DEBUG PRINT   *******;

          %IF &DEBUG=Y %THEN %DO;
              %IF &I=&GRPNUM AND &PREF=R %THEN %DO;
                  PROC PRINT DATA=&PREF.SERR;
                      VAR &TABLEVAR GROUP SERRV1-SERRV&COMPNUM;
                  RUN;
              %END;
          %END;

       %END;

      %MEND A_SUDAAN;

      %A_SUDAAN (USA);
      %A_SUDAAN (XSERVAFF);
      %A_SUDAAN (XSERVREG);
      %A_SUDAAN (XTNEXREG);

      **********************************************************
      *** Next, calculate correlation coefficients       ***
      *** and create a file for each analytical unit      ***
      **********************************************************;

      %MACRO GETCORR(BYVAR);

       %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;
       %ELSE %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
       %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
       %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;

       PROC SORT DATA=HCSDB; BY &BYVAR;
       RUN;

       %DO I = 1 %TO &GRPNUM;

          PROC CORR NOPRINT DATA=HCSDB OUTP=&PREF.CORRC&I;
            %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %DO;
               WHERE BGROUP=&I AND 1 <= XSERVAFF <= 4;       /** RSG 0/2005 Change conus values to
    keep to be between 1-4 **/
            %END;
            %IF %UPCASE(&BYVAR)=USA %THEN %DO;
               WHERE BGROUP=&I AND USA = 1;
            %END;
             %ELSE %DO;
                WHERE BGROUP=&I;
             %END;
             BY &BYVAR;
             VAR PRVVAR1-PRVVAR&COMPNUM;
             WITH PRVVAR1-PRVVAR&COMPNUM;
             WEIGHT &WGT;
          RUN;

          DATA &PREF.CORRC&I;
            SET &PREF.CORRC&I;
            WHERE _TYPE_="CORR";
            GROUP=&I;
            ARRAY OLD PRVVAR1-PRVVAR&COMPNUM;
            ARRAY NEW CORV1-CORV&COMPNUM;
            DO J = 1 TO &COMPNUM;
                NEW(J)=OLD(J);
            END;
            DROP J PRVVAR1-PRVVAR&COMPNUM;
          RUN;

          %IF &I=1 %THEN %DO;
```

```
          DATA &PREF.CORRC;
            SET &PREF.CORRC&I;
          RUN;

     %END;
     %ELSE %DO;

          DATA &PREF.CORRC;
            SET &PREF.CORRC
            &PREF.CORRC&I;
          RUN;

     %END;
     %IF &DEBUG=Y %THEN %DO;
         %IF &I=&COMPNUM AND &PREF=R %THEN %DO;
            PROC PRINT DATA=&PREF.CORRC;
               WHERE GROUP=1;
            RUN;
         %END;
     %END;
   %END;
 %END;

*** Flatten dataset(for each region, condense matrix to one row) ***;

 %DO K=1 %TO &COMPNUM;

     DATA &PREF.CORR&K;
       SET &PREF.CORRC;
       WHERE _NAME_ = "PRVVAR&K";
       ARRAY CORR   (&COMPNUM) CORV1-CORV&COMPNUM;
       ARRAY CORR&K (&COMPNUM) CORV&K.1-CORV&K.&COMPNUM;
       DO L=1 TO &COMPNUM;
          CORR&K(L)=CORR(L);
       END;
       KEEP GROUP &BYVAR CORV&K.1-CORV&K.&COMPNUM;
     RUN;
     %IF &K=1 %THEN %DO;
         DATA &PREF.CORR;
           SET &PREF.CORR&K;
         RUN;
     %END;
     %ELSE %DO;
        DATA &PREF.CORR;
          MERGE &PREF.CORR(IN=IN_1) &PREF.CORR&K(IN=IN_2);
          BY GROUP &BYVAR;
        RUN;
     %END;
     %IF &DEBUG=Y %THEN %DO;
         %IF &PREF=R %THEN %DO;
            PROC PRINT DATA=&PREF.CORR;
               WHERE GROUP=1;
            RUN;
         %END;
     %END;
  %END;

%MEND GETCORR;

%GETCORR(USA);
%GETCORR(XSERVAFF);
%GETCORR(XSERVREG);
%GETCORR(XTNEXREG);

*********************************************************
***  Macro to derive composites for each       *******
***  beneficiary group, level                  *******
***  output one dataset for each group          *******
*********************************************************;

%MACRO GETPROP(BYVAR);

 %LET START = %EVAL(&CMPNUM1+1);

 %IF %UPCASE(&BYVAR)=XSERVREG %THEN %LET PREF=R;
```

```
        %ELSE %IF %UPCASE(&BYVAR)=USA %THEN %LET PREF=C;
        %ELSE %IF %UPCASE(&BYVAR)=XSERVAFF %THEN %LET PREF=M;
        %ELSE %IF %UPCASE(&BYVAR)=XTNEXREG %THEN %LET PREF=S;


     PROC MEANS NWAY NOPRINT DATA=HCSDB;
        CLASS BGROUP &BYVAR;
        VAR NUMV1-NUMV&COMPNUM
            DENV1-DENV&COMPNUM;
        WEIGHT &WGT;
        OUTPUT OUT= &PREF.CMPSUM(DROP = _TYPE_)
        SUM =  ;
     RUN;
     PROC MEANS NWAY NOPRINT DATA=normdata;
     *   CLASS &BYVAR;
        VAR
            DENV1-DENV&COMPNUM;
        WEIGHT &wgt.;
        OUTPUT OUT= &PREF.norms(DROP = _TYPE_)
        SUM =  nrmv1-nrmv&compnum;
     RUN;

     PROC MEANS NWAY NOPRINT DATA=HCSDB;
        CLASS BGROUP &BYVAR;
        VAR DENV1-DENV&COMPNUM;
        OUTPUT OUT=&PREF.DGFR(DROP=_TYPE_ _FREQ_)
        SUM= NOBSV1-NOBSV&COMPNUM;
     RUN;

   data &pref.cmpsum;

   if _n_=1 then set &pref.norms;
   set &pref.cmpsum;
   proc sort data=&pref.cmpsum; by bgroup &byvar;
    DATA &PREF.CMPSUM;
       MERGE &PREF.CMPSUM(RENAME=(_FREQ_=N_OBS))
             &PREF.DGFR;
       BY BGROUP &BYVAR;
       %IF &PREF=M %THEN %DO;  /** added 7/10/2000 **/
           WHERE 1 <= XSERVAFF <= 4;          /** RSG 01/2005 Change conus values to keep to be
between 1-4 **/
       %END;
       %ELSE %IF &PREF=C %THEN %DO;
           WHERE USA = 1;
       %END;

      **** set up group variable  **;

       RENAME BGROUP=GROUP;;

      **** set up proportions, and composites **;

      ARRAY PROPORT PROPV1-PROPV&COMPNUM;
      ARRAY NUMER   NUMV1-NUMV&COMPNUM;
      ARRAY DENOM   DENV1-DENV&COMPNUM;
      array norm    nrmv1-nrmv&compnum;

      DO J=1 TO DIM(PROPORT);
         PROPORT(J) = NUMER(J)/DENOM(J);
      END;
      DROP J;

    **** composites **;


  ** added goalvars to datastep, 5/30/2000                    ;
  ** taken out of temporary array for variance calculations;
  ** and used, kept as variables                             ;

   GOALVAR1=&GOALVAR1;
   GOALVAR2=&GOALVAR2;
   GOALVAR3=&GOALVAR3;
   GOALVAR4=&GOALVAR4;
   GOALVAR5=&GOALVAR5;
```

```
     GOALVAR6=&GOALVAR6;
     GOALVAR7=&GOALVAR7;
    /*RSG 04/2005 - delete goal8 since chol eliminated*/

    ** the weight for preventive service is defined as the          ;
    **   proportion   of   the   denominator   for   that   service   to   the                ;
 ;
    ** composite denominator                                     ;
    ** healthy people 2000 goals -- used as benchmarks           ;

     ARRAY   SVCWGT(&COMPNUM) WGTV1-WGTV&COMPNUM;
     ARRAY    BMARK(&COMPNUM) GOALVAR1-GOALVAR&COMPNUM;
     ARRAY WGTBMARK(&COMPNUM) WTDV1-WTDV&COMPNUM;
     array comp(&compnum) cmpv1-cmpv&compnum;
   cpden1=sum(of nrmv1-nrmv&cmpnum1);
   cpden2=sum(of nrmv&start-nrmv&compnum);
     DO K = 1 TO &COMPNUM;
          IF K < &START THEN SVCWGT(K)= norm(K)/CPDEN1;
          ELSE SVCWGT(K) = norm(K)/CPDEN2;
          WGTBMARK(K) = SVCWGT(K)*BMARK(K);
          comp(k)=svcwgt(k)*proport(k);
     END;
     DROP K;
     CPBMK1=SUM(OF WTDV1-WTDV&CMPNUM1);
     CPBMK2=SUM(OF WTDV&START-WTDV&COMPNUM);
     comp1=sum(of cmpv1-cmpv&cmpnum1);
   comp2=sum(of cmpv&start-cmpv&compnum);
    DROP WGTV1-WGTV&COMPNUM WTDV1-WTDV&COMPNUM
           NUMV1-NUMV&COMPNUM;
    RUN;

    %IF &DEBUG=Y AND &PREF=R %THEN %DO;
         PROC PRINT DATA=&PREF.CMPSUM;  /* print out final dataset */
         RUN;                              /* for region to check     */
    %END;

   %MEND GETPROP;


   %GETPROP(USA);
   %GETPROP(XSERVAFF);
   %GETprop(XSERVREG);
   %GETPROP(XTNEXREG);


   *********************************************************
   ** since MHS benchmarks will be displayed         ****
   ** set up adjustment factor to apply to           ****
   ** each analytical unit's composite benchmarks     ****
   *********************************************************;


   *********************************************************
   ***  Macro to merge 3 datasets for each          *******
   ***  called by analytical unit                   *******
   ***  output final dataset for                    *******
   ***  XSERVAFF, XSERVREG, XTNEXREG, MHS (USA)     *******
   *********************************************************;

   PROC FORMAT;  /*RSG 02/2005 - hardcoded in prog to have caps vs format in loadcahq.inc*/
      VALUE REGIONF
         0 = "USA MHS "
         1 = "NORTH"
         2 = "SOUTH"
         3 = "WEST"
         4 = "OVERSEAS"
       ;
   %MACRO GETSIG(BYVAR);

    %LET START = %EVAL(&CMPNUM1+1);
    %LET NEXT  = %EVAL(&CMPNUM1+2);

    %IF &BYVAR=XSERVREG %THEN %LET PREF=R;
    %ELSE %IF &BYVAR=USA %THEN %LET PREF=C;
    %ELSE %IF &BYVAR=XSERVAFF %THEN %LET PREF=M;
    %ELSE %IF &BYVAR=XTNEXREG %THEN %LET PREF=S;
```

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```
       DATA OUT.&PREF.FINAL(KEEP= MAJGRP REGION REGCAT GOALVAR1-GOALVAR&COMPNUM
                   SIGV1-SIGV&COMPNUM SCORV1-SCORV&COMPNUM
                   CPSIG1-CPSIG&COMPCNT CP1SE CP2SE
                   CSCOR1-CSCOR&COMPCNT CPBMK1-CPBMK&COMPCNT
                   SERRV1-SERRV&COMPNUM CP1SE CP2SE
                   COMP1 COMP2 PROPV1-PROPV&COMPNUM
                   DFSCR1-DFSCR&COMPNUM DF_CP1 DF_CP2
                   NOBSV1-NOBSV&COMPNUM CPOBS1-CPOBS&COMPCNT
                   DENV1-DENV&COMPNUM CPDEN1-CPDEN&COMPCNT);

       FORMAT MAJGRP $30. REGION $25. REGCAT $26.;
           MERGE &PREF.CMPSUM(IN=IN_PROP) &PREF.CORR
           &PREF.SERR;
           BY GROUP &BYVAR;
           IF IN_PROP;
     %DO Z=1 %TO &COMPCNT;

               CSCOR&Z=COMP&Z.*100;

       %END;
     **  MAJGRP -- text field for group   **;
       IF      GROUP=1 THEN MAJGRP="Prime Enrollees            ";
       ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
       ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
       ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
       ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
       ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
       ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
       ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

     **** REGION AND REGCAT SETUP          **;
       %IF &PREF=S %THEN %DO;
           REGCAT=PUT(XTNEXREG,REGIONF.);
           REGION=PUT(XTNEXREG,REGIONF.);
       %END;
       %else %IF &PREF=C %THEN %DO;
           REGION="USA MHS";
           REGCAT="USA MHS";
       %END;
       %ELSE %IF &PREF=R %THEN %DO;
           REGION=PUT(XSERVREG, SERVREGO.);
           REGCAT=PUT(XSERVREG, SERVREGO.);
       %END;
       %ELSE %IF &PREF=M %THEN %DO;                        /** RSG 1/2005 Add codes for service
grouping **/
           REGION=PUT(XSERVAFF,XSERVAFF.);
           REGCAT=PUT(XSERVAFF,XSERVAFF.);
       %END;

     **** setup t statistics, degreees of freedom    **;
       ARRAY   TSTAT{&COMPNUM} T_V1-T_V&COMPNUM;
       ARRAY   BMARK{&COMPNUM} GOALVAR1-GOALVAR&COMPNUM;
       ARRAY  STNDERR{&COMPNUM} SERRV1-SERRV&COMPNUM;
       ARRAY  SERRSQR{&COMPNUM} SESQV1-SESQV&COMPNUM;
       ARRAY    DEGF{&COMPNUM} DFSCR1-DFSCR&COMPNUM;
       ARRAY   DENOM{&COMPNUM} DENV1-DENV&COMPNUM;
       ARRAY  PROPORT{&COMPNUM} PROPV1-PROPV&COMPNUM;
       ARRAY   SCORE{&COMPNUM} SCORV1-SCORV&COMPNUM;
       ARRAY  PVALUE{&COMPNUM} PVALV1-PVALV&COMPNUM;
       ARRAY     SIG{&COMPNUM} SIGV1-SIGV&COMPNUM;
       ARRAY    NOBS{&COMPNUM} NOBSV1-NOBSV&COMPNUM;
       array    norm{&compnum} nrmv1-nrmv&compnum;

     ** get the item variance, t-statistics, df, p-values **;
     ** and whether significant                          **;
       DO I=1 TO &COMPNUM;
           SERRSQR{I}=STNDERR{I}**2;  /* Item variance */
           SCORE{I}=PROPORT{I}*100;    /* Score (prop. * 100) */
           IF STNDERR{I} > 0 THEN TSTAT{I}=(PROPORT{I}-BMARK{I})/STNDERR{I};
           ELSE TSTAT{I}=.;
           DEGF{I}=NOBS{I}-1;
           PVALUE{I}=(1-PROBT(ABS(TSTAT{I}),DEGF{I}))*2;
```

```
          IF PVALUE{I} GE .05 THEN SIG{I}=0;
          ELSE IF PVALUE{I} < .05 THEN DO;
              IF PROPORT{I} > BMARK{I} THEN SIG{I}=1;
              IF PROPORT{I} < BMARK{I} THEN SIG{I}=-1;
          END;
       END;
       DROP I;

     ** multiply each item pair std. errors and correlation coefficients **;
     ** preventive care composite                                        **;
    ARRAY SEwC1{&CMPNUM1} SEwV1-SEwV&CMPNUM1;

      ARRAY SERRC1{&CMPNUM1} SERRV1-SERRV&CMPNUM1;
      %DO J = 1 %TO &CMPNUM1;
          ARRAY  SMEAN&J{&CMPNUM1} SEMV&J.1-SEMV&J.&CMPNUM1;
          ARRAY CORVAR&J{&CMPNUM1} CORV&J.1-CORV&J.&CMPNUM1;
          DO K=1 TO &CMPNUM1;
              SMEAN&J{K}=SERRV&J*SERRC1{K}*CORVAR&J{K}*norm{K}*nrmV&J
          END;
          SEMV&J.&J=0;
           sewv&j= (nrmV&j**2)*SESQV&j;/** don't count in final standard error calculation
**/
      %END;
       DROP K;
     ** multiply each item pair std. errors and correlation coefficients **;
     ** access to care composite                                         **;

      ARRAY SERRC2{&CMPNUM2} SERRV&START-SERRV&COMPNUM;
      %DO L = &START %TO &COMPNUM;
          ARRAY  SMEAN&L{&CMPNUM2} SEMV&L.&START-SEMV&L.&COMPNUM;
          ARRAY CORVAR&L{&CMPNUM2} CORV&L.&START-CORV&L.&COMPNUM;
          DO M=1 TO &CMPNUM2;
              SMEAN&L{M}=SERRV&L*SERRC2{M}*CORVAR&L{M};
          END;
          SEMV&L.&L=0;  /** don't coun't in final standard error calculation **/
       %END;
       DROP M;
     ** calculate composite t-statistic, pvalue, and whether significant **;
     ** for composites                                                   **;
    %DO P=1 %TO &COMPCNT;
          %IF &P=1 %THEN %DO;
          ** composite standard error comprised of two parts **;
              CP&P.SE1=SUM(OF SEwV1-SEwV&CMPNUM1);
              CP&P.SE2=SUM(OF SEMV11-SEMV&CMPNUM1.&CMPNUM1.);
              cpobs&p=sum(of nobsv1-nobsv&cmpnum1);
          %END;
          %ELSE %DO;
              CP&P.SE1=SUM(OF SESQV&START-SESQV&COMPNUM);
              CP&P.SE2=SUM(OF SEMV&START.&START.-SEMV&COMPNUM.&COMPNUM.);
              cpobs&p=sum(of nobsv&start-nobsv&compnum);
          %END;
     ** add the two parts of the composite standard error  **;
     ** calculate the composite t statistics and p-values   **;
     ** determine whether differences are sigificant        **;

          CP&P.SE=SQRT(CP&P.SE2+CP&P.SE1)/CPden&P;
          IF CP&P.SE > 0 THEN CP_T&P.=(COMP&P.-CPBMK&P.)/CP&P.SE;
          ELSE CP_T&P.= .;
          DF_CP&P.=CPOBS&P. - 1;
          CP_P&P.=(1-PROBT(ABS(CP_T&P.),DF_CP&P.))*2;
          IF CP_P&P GE .05 THEN CPSIG&P=0;
          ELSE IF CP_P&P < .05 THEN DO;
              IF COMP&P. > CPBMK&P THEN CPSIG&P= 1;
              ELSE IF COMP&P. < CPBMK&P THEN CPSIG&P=-1;
          END;
      %END;

      OUTPUT OUT.&PREF.FINAL;
   RUN;

  %MEND GETSIG;


  %GETSIG(USA);
  %GETSIG(XTNEXREG);
```

```
%GETSIG(XSERVREG);
%GETSIG(XSERVAFF);
```

```
     *****************************************************************************
     *
     *  Project:    DoD Reporting and Analysis 6077-410
     *  Program:    SMOKING_BMI.SAS
     *  Purpose:    Calculate Smoking Rate and Smoking Cessation
     *              for each region-service affiliation and
     *              conus-service affiliation groups.
     *
     *  Date:       1/31/2005
     *  Author:     Regina Gramss
     *
     *  Modified:   1) 04/2005 By Regina Gramss, Updated for Q1 2005.
     *              2) 12/2005 By Regina Gramss, Updated for Q4 2005.
     *              3) 01/2006 By Regina Gramss - Updated for 2005 annual data.  Normalize
     *                 with 2005 data and not 2000.  Standardize using age/sex and MPCSMPL
     *                 (military personnel category).  Update smoking cessation
     *                 calculation with new formula to correspond more to HEDIS.  Use new
     *                 weight (CFWT) and use STRATUM as TMP_CELL.
     *              4) 03/24/2006 By Keith Rathbun, Updated for Q2 FY 2006.
     *              5) 07/12/2006 By Justin Oh, Updated for Q3 FY 2006.
     *              6) 08/24/2006 By Justin Oh, REGNUM changed from 16 to 24.
     *                 Changed XSERVREG for Overseas
     *                 Changed IF XINS_COV IN (3,4,5) THEN GROUP4 = 1 to
     *                         IF XINS_COV IN (3)     THEN GROUP4 = 1
     *                 Since only XINS_COV IN (1,2,3,6) is kept.
     *                 Create XOCONUS for 2005 data.
     *                 Added/Moved LIBRARY Libname to use both Quarter/Annual Formats.
     *              7) 10/04/2006 By Justin Oh, Updated %LET DSN and CURRENT.
     *               8) 12/22/2006 By Justin Oh, Updated %LET DSN HCS071_1 and CURRENT October,
     2006.
     *               9) 02/02/2007 By Justin Oh, Added "s" to Healthy Behaviors
     *              10) 04/05/2007 By Justin Oh, Updated %LET DSN HCS072_1 and CURRENT January,
     2007.
     *              11) 04/05/2007 By Justin Oh, Added conditions for RC types
     *                      ReportCards OR PurchasedReportCards.
     *              12) 05/10/2007 By Justin Oh, Added codes, variables for new reservists logic
     for
     *                      both Norm and Quarter datasets.
     *              13) 05/15/2007 By Justin Oh, Changed XINS_COV to NXNS_COV to assign
     *                      Groups 1,3, and 4 for new reservists logic.
     *              14) 07/30/2007 By Justin Oh, Added added DBENCAT conditions to assign
     *                      Groups All, 4, 5, and 6.
     *              15) 09/04/2007 By Justin Oh, Updated %LET DSN HCS074_1 and CURRENT July, 2007.
     *               16) 01/10/2008 By Keith Rathbun, Updated %LET DSN HCS081_1 and CURRENT
     October, 2007.
     *                      Also changed H07 variable names to be H08 to match 2008 survey.
     *               17) 04/11/2008 By Justin Oh, Updated %LET DSN HCS082_1 and CURRENT January,
     2008.
     *               18) 06/13/2008 By Keith Rathbun, Updated %LET DSN HCS083_1 and CURRENT April,
     2008.
     *               19) 03/11/2009 By Keith Rathbun, Updated %LET DSN HCS092_1 and CURRENT
     January, 2009.
     *               20) 04/20/2009 By Mike Rudacille, Switched from 2005 to 2007 benchmark data
     for transition to
     *                      V4 questionnaire.
     *              21) 05/05/2009 By Mike Rudacille, Updated for 2008 benchmark data.
     *              22) 06/22/2009 By Keith Rathbun, Updated %LET DSN HCS093_1 and CURRENT April,
     2009.
     *                      Changed weight variable from FWRWT_V4 back to FWRWT.
     *              23) 09/30/2009 By Mike Rudacille, Updated %LET DSN HCS094_1 and CURRENT July,
     2009.
     *
     *    Inputs:    1) HCS05A_1.SD2 - Annual 2005 Survey data
     *               2) HCS093_1.sas7bdat - Q3 fy 2009 Survey data
     *               3) AC2008DB.sas7bdat - 2008 CAHPS Benchmark Data
     *
     *    Output:    1) SMOKE.sas7bdat
     *
     *
     *****************************************************************************;
```

```
      OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2 NOFMTERR;

      /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards            ***/
      %LET RCTYPE = PurchasedReportCards;

      LIBNAME BENCH        "..\..\..\..\2008AdultChildNCBD\Adult";
      LIBNAME INDAT        "..\..\..\Data\afinal";
      LIBNAME INNORM v612 "..\..\..\..\2005\Data";
      LIBNAME OUT          ".";

      %LET DSN=HCS094_1;
      %LET DSN_NORM=HCS05A_1;                    /*JSO 08/24/2006, Changed Regions, 16 to 15*/
      %LET REGNUM = 15;                                /*RSG 01/2005 Number of Regions (with serv
affiliation)*/
      %LET CONNUM = 4;                              /*RSG 01/2005 Number of Conus level (with serv
affiliation)*/
      %LET CURRENT = July, 2009;
      %LET WGT = FWRWT;
      %LET NORMWGT = CFWT;
      %LET CATCHNUM=9999;                        /*RSG 02/2005 number of catchment areas **/

      DATA BENCHA01;
         SET BENCH.AC2008DB (RENAME=(BIRTHYY=YOB));
         if product in (7,9) then model=4;
         if product=3 then model=2;                     /*coded according to AC FORMATS.SAS*/
         if product=1 then model=1;
         if product=4 then model=6;
         if product=8 then model=5;
         if product=2 then model=3;
         product=planid;
      if ^(model in (2,4));
      if disp in ('M10','I10')  ;
      if ac45_08 in (1,2) & ac46_08>=0 & ac46_08<=4;   /*02/2006 RSG - REMOVED REQUIREMENT FOR
ADDITIONAL VISIT (ACC22 FIELD)*/
      cessbnch=0;
      if ac46_08>0 then cessbnch=1;


      proc summary nway; class product;
      var cessbnch;
      output out=tbench mean=;
      proc print;
      proc summary;
      var cessbnch;
      output out=tbench mean=;
      proc print;
      data _null_;
      set tbench;
      call symput('CNSLGOAL',cessbnch);
      run;

      %LET NSMKGOAL = 0.88;

      %LET BMIGOAL  = 0.85;

      %INCLUDE "..\..\LoadWeb\LOADCAHQ.INC";

      PROC FORMAT;
      VALUE AGEF
      LOW - 34 = 1
       35 - 49 = 2
       50 - 64 = 3
       65 - HIGH = 4;

      /* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
      LIBNAME LIBRARY '..\..\..\..\2005\Data\fmtlib';

      DATA NORMDATA (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF
                          SM_RATE SM_CESS SM_RTDN SM_CSDN  BMI_DN BMI
                          TOTCON GROUP XSEXA &WGT. age_n MPCSMPL NXNS_COV);
                          /* 05/10/2007 JSO Added NXNS_COV in the keep statement */
      SET INNORM.&DSN_NORM.(DROP=&WGT.); /* 4/4/2006, KRR added drop so CFWT can renamed/used */
      LENGTH AGE_N AGE_GRP TMP_CELL 8.;
```

```
     IF     XREGION=13 THEN XOCONUS=1; /* 08/24/2006, JSO Create XOCONUS for 2005 data */
     ELSE IF XREGION=14 THEN XOCONUS=2;
     ELSE IF XREGION=15 THEN XOCONUS=3;


     TMP_CELL=STRATUM;

     AGE_N = FIELDAGE;

     AGE_GRP = PUT(AGE_N, AGEF.);
     IF AGE_GRP < 4;

     IF SERVAFF = 'A' THEN XSERVAFF = 1;          *Army;
     ELSE IF SERVAFF = 'F' THEN XSERVAFF = 2;   *Air Force;
     ELSE IF SERVAFF = 'N' THEN XSERVAFF = 3;    *Navy;
     ELSE XSERVAFF = 4;                           *Other/unknown;

     IF XTNEXREG = 1 THEN DO;
        IF XSERVAFF = 1 THEN XSERVREG = 1;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
        ELSE XSERVREG = 4;
     END;

     IF XTNEXREG = 2 THEN DO;
        IF XSERVAFF = 1 THEN XSERVREG = 5;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
        ELSE XSERVREG = 8;
     END;

     IF XTNEXREG = 3 THEN DO;
        IF XSERVAFF = 1 THEN XSERVREG = 9;
        ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
        ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
        ELSE XSERVREG = 12;
     END;

     IF XTNEXREG = 4 THEN DO; /*JSO 08/22/2006, Changed Overseas Regions*/
        IF     XOCONUS = 1 THEN XSERVREG = 13;
        ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
        ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
     END;

     IF HP_SMOKH IN (1,2) THEN DO;
        SM_RATE = 0;
        IF HP_SMOKH = 2 THEN SM_RATE=1;
        SM_RTDN=1;
     END;

     if hp_smokh=1 & H05055>0 then do;      /*RSG 02/2006 NEW SMOKING CESSATION FORMULA AS PER
ERIC SCHONE */
        if H05055>1 then sm_cess=1;
        else sm_cess=0;
        sm_csdn=1;
     end;

     IF xbmicat > 0  THEN DO;
         BMI = 0;
         BMI_DN=1;
        IF xbmicat <=3 THEN BMI=1;
     END;

     IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

     ELSE IF XTNEXREG = 4 THEN TOTCON=2;

     IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

     RENAME &NORMWGT = &WGT;

     IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

     IF XTNEXREG = .    THEN DELETE;
```

```
IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;   /*JSO 07/30/2007, Added 9*/

NXNS_COV = XINS_COV;                  /*JSO 04/26/2007 added for reservists logic*/
                                      /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
IF DBENCAT IN('GRD','IGR') AND H05006 = 3 THEN DO;
   NXNS_COV = 3;
   XENR_PCM = .;
END;

* prime enrollees;
IF NXNS_COV IN (1,2,6) AND H05007>=2 THEN DO;
   GROUP=1;
   OUTPUT;
END;

* enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM IN (1,2,6) AND H05007>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   XENR_PCM IN (1,2) AND H05007>=2 THEN DO;
   GROUP=2;
   OUTPUT;
END;

* enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
IF "&RCTYPE" = 'ReportCards' AND
   XENR_PCM = 3 AND H05007>=2 THEN DO;
   GROUP=3;
   OUTPUT;
END;
ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
   ((XENR_PCM = 3 AND H05007>=2) OR NXNS_COV IN (3,9)) THEN DO; /*JSO 07/30/2007, Added 9*/
   GROUP=3;
   OUTPUT;
END;

* nonenrollees;
IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
   GROUP=4;                   /*JSO 07/30/2007, Added 9*/
   OUTPUT;
END;

* active duty;
IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
   GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* active duty dependents;
IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR')THEN DO;
   GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
   OUTPUT;
END;

* retirees;
IF XBNFGRP IN (3,4) THEN DO;
   GROUP=7;
   OUTPUT;
END;

* all beneficiaries;
GROUP=8;
OUTPUT;

RUN;

/* 08/22/2006 JSO Moved from the top of program for using Quarter vs. Annual Formats */
LIBNAME LIBRARY '..\..\..\Data\afinal\fmtlib';
```

```
          DATA SMOKE (KEEP=TMP_CELL AGE_GRP XTNEXREG XSERVREG XSERVAFF TOTCON GROUP
                         SM_RATE SM_CESS SM_RTDN SM_CSDN XSEXA &WGT BMI_DN BMI
                         MPCSMPL NXNS_COV);/* 05/10/2007 JSO Added NXNS_COV in the keep statement
*/
          SET INDAT.&DSN.;
          LENGTH AGE_N AGE_GRP TMP_CELL 8.;

          /* MER 4/20/09 - Restrict dataset to just non-zero V4 weights */
          IF &WGT <= 0 THEN DELETE;

          TMP_CELL=STRATUM;

          AGE_N = FIELDAGE;

          AGE_GRP = PUT(AGE_N, AGEF.);

          IF AGE_GRP < 4;
          IF SERVAFF='A' THEN XSERVAFF=1;                *Army;
             ELSE IF SERVAFF='F' THEN XSERVAFF=2;        *Air Force;
             ELSE IF SERVAFF='N' THEN XSERVAFF=3;        *Navy;
             ELSE XSERVAFF=4;

          IF XTNEXREG = 1 THEN DO;
             IF XSERVAFF = 1 THEN XSERVREG = 1;
             ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
             ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
             ELSE XSERVREG = 4;
          END;

          IF XTNEXREG = 2 THEN DO;
             IF XSERVAFF = 1 THEN XSERVREG = 5;
             ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
             ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
             ELSE XSERVREG = 8;
          END;

          IF XTNEXREG = 3 THEN DO;
             IF XSERVAFF = 1 THEN XSERVREG = 9;
             ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
             ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
             ELSE XSERVREG = 12;
          END;

          IF XTNEXREG = 4 THEN DO; /*JSO 08/24/2006, Changed Overseas Regions*/
             IF      XOCONUS = 1 THEN XSERVREG = 13;
             ELSE IF XOCONUS = 2 THEN XSERVREG = 14;
             ELSE IF XOCONUS = 3 THEN XSERVREG = 15;
          END;

          IF XTNEXREG IN (1,2,3) THEN TOTCON=1;

          ELSE IF XTNEXREG=4 THEN TOTCON=2;

          IF MPCSMPL = 3 THEN MPCSMPL = 2;  /* RSG 02/2006 GROUP WARRANT OFFICER WITH OFFICER */

          IF FIELDAGE >= '065' THEN DELETE; /*JSO added 11/10/2006*/

          IF XTNEXREG = . THEN DELETE;

          IF XINS_COV NOT IN(1,2,3,6,9) THEN DELETE;  /*JSO 07/30/2007, Added 9*/

          NXNS_COV = XINS_COV;                 /*JSO 04/26/2007 added for reservists logic*/
                                               /*JSO 07/30/2007, added DBENCAT, NXNS_COV conditions*/
          IF DBENCAT NOT IN('IGR','GRD','IDG','DGR') AND NXNS_COV = 9 THEN DELETE;
          IF DBENCAT IN('GRD','IGR') AND H09003 = 3 THEN DO;
             NXNS_COV = 3;
             XENR_PCM = .;
          END;

          IF HP_SMKH2 IN (1,2) THEN DO;
             SM_RATE = 0;
             IF HP_SMKH2 = 2 THEN SM_RATE=1;
             SM_RTDN=1;
          END;
```

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```
    if hp_smkh2=1 & H09053>0 then do;      /*RSG 02/2006 NEW SMOKING CESSATION FORMULA AS PER
ERIC SCHONE */
        if H09053>1 then sm_cess=1;
        else sm_cess=0;
        sm_csdn=1;
    end;

    IF xbmicat > 0  THEN DO;
        BMI = 0;
        BMI_DN=1;
        IF xbmicat <=3 THEN BMI=1;
    END;

    * prime enrollees;
    IF NXNS_COV IN (1,2,6) AND H09004>=2 THEN DO;
        GROUP=1;
        OUTPUT;
    END;

    * enrollees with military pcms; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
        XENR_PCM IN (1,2,6) AND H09004>=2 THEN DO;
        GROUP=2;
        OUTPUT;
    END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
        XENR_PCM IN (1,2) AND H09004>=2 THEN DO;
        GROUP=2;
        OUTPUT;
    END;

    * enrollees with civilian pcms; /*JSO 04/05/2007, added conditions for RC type*/
    IF "&RCTYPE" = 'ReportCards' AND
        XENR_PCM = 3 AND H09004>=2 THEN DO;
        GROUP=3;
        OUTPUT;
    END;
    ELSE IF "&RCTYPE" = 'PurchasedReportCards' AND
        ((XENR_PCM = 3 AND H09004>=2) OR NXNS_COV IN (3,9)) THEN DO; /*JSO 07/30/2007, Added 9*/
        GROUP=3;
        OUTPUT;
    END;

    * nonenrollees;
    IF NXNS_COV IN (3,9) THEN DO; /*JSO 08/24/2006, Deleted 4,5*/
        GROUP=4;                  /*JSO 07/30/2007, Added 9*/
        OUTPUT;
    END;

    * active duty;
    IF XBNFGRP = 1 OR DBENCAT IN('IGR','GRD') THEN DO;
        GROUP=5;        /*JSO 07/30/2007, added DBENCAT conditions*/
        OUTPUT;
    END;

    * active duty dependents;
    IF XBNFGRP = 2 OR DBENCAT IN('IDG','DGR') THEN DO;
        GROUP=6;        /*JSO 07/30/2007, added DBENCAT conditions*/
        OUTPUT;
    END;

    * retirees;
    IF XBNFGRP IN (3,4) THEN DO;
        GROUP=7;
        OUTPUT;
    END;

    * all beneficiaries;
    GROUP=8;
    OUTPUT;

    RUN;
```

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```
PROC SORT DATA=SMOKE;
BY TMP_CELL;
PROC SORT DATA=NORMDATA;
BY TMP_CELL;
RUN;


%MACRO A_SUDAAN(TABLEVAR,SMOKE,SMOKEVAR,DEN);

%IF %UPCASE(&TABLEVAR)=XSERVREG %THEN %DO;
    %LET ENDNUM=&REGNUM;
    %LET PREF=R;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XSERVAFF %THEN %DO;
    %LET ENDNUM=&CONNUM;
    %LET PREF=M;
%END;
%ELSE %IF %UPCASE(&TABLEVAR)=XTNEXREG %THEN %DO;
    %LET ENDNUM=&CONNUM;
    %LET PREF=S;
%END;

%ELSE %IF %UPCASE(&TABLEVAR)=TOTCON %THEN %LET PREF=C;

%DO I = 1 %TO 8;

    DATA INDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA MPCSMPL
                      &SMOKEVAR. &DEN. TMP_CELL XTNEXREG);
    SET SMOKE;
    WHERE XSERVREG > 0 AND GROUP=&I. AND &DEN. >= 0;
        %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
            IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;
        %END;
        %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
            IF TOTCON NE 1 THEN DELETE;
        %END;
        %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
            IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
        %END;
    RUN;


     DATA NORMDAT&I.(KEEP=&WGT XSERVAFF XSERVREG AGE_GRP XSEXA &SMOKEVAR. &DEN.
                        TMP_CELL XTNEXREG MPCSMPL);
        SET NORMDATA;
            WHERE XSERVREG > 0 AND GROUP=&I.;

            %IF %UPCASE(&TABLEVAR) = XSERVAFF %THEN %DO;
                IF XSERVAFF > 4 OR XSERVAFF = . THEN DELETE;
            %END;
        %IF %UPCASE(&TABLEVAR) = XTNEXREG %THEN %DO;
            IF XTNEXREG NOTIN (1,2,3,4) THEN DELETE;
        %END;

         RUN;

        %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / missunit;
                VAR &SMOKEVAR;
                TABLES AGE_GRP*XSEXA*MPCSMPL*&TABLEVAR.;
                SUBGROUP AGE_GRP XSEXA MPCSMPL &TABLEVAR.;
                LEVELS 8 2 2 &ENDNUM.;
                OUTPUT  SEMEAN MEAN wsum nsum
                        / TABLECELL=DEFAULT REPLACE
                            FILENAME=&PREF.GRP&I.&SMOKE.;
                RUN;
        %END;
        %ELSE %IF %UPCASE(&SMOKE) NE CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                WEIGHT &WGT;
                SETENV DECWIDTH=4;
                NEST TMP_CELL / missunit;
```

```
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA*MPCSMPL;
                        SUBGROUP AGE_GRP XSEXA MPCSMPL;
                        LEVELS 3 2 2;
                        OUTPUT  SEMEAN MEAN wsum nsum
                                  / TABLECELL=DEFAULT REPLACE
                                     FILENAME=&PREF.GRP&I.&SMOKE.;
                        RUN;
            %END;

        %IF %UPCASE(&SMOKE) NE CS %THEN %DO;

                DATA &PREF.SER_&I.&SMOKE.;
                SET &PREF.GRP&I.&SMOKE.;
                GROUP=&I.;
                IF SEMEAN NE .;
                %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                    KEEP &TABLEVAR. GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
                %END;
                %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                    TOTCON=1;
                    KEEP TOTCON GROUP AGE_GRP XSEXA MPCSMPL SEMEAN MEAN wsum nsum;
                %END;
            RUN;

            /* CREATE WEIGHTS FROM 2005 DATA*/
            proc summary data=normdat&i. nway;
                  var &WGT;
                  where &den>0;
                  class age_grp xsexa MPCSMPL;
                  output out=norm_&i. sum=normwt;

                  proc sort data=&pref.ser_&i.&smoke.;
                  by age_grp xsexa mpcsmpl;

                  data &pref.ser_&i.&smoke.;
                  merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                  by age_grp xsexa mpcsmpl;
                  if gin;
                  wsum=wsum/normwt;
                  nsum=nsum/normwt;
                  sesq=normwt*semean**2;
                  run;

                  proc summary data=&pref.ser_&i.&smoke. nway;
                  var mean semean sesq wsum nsum;
                  class &tablevar.;
                  weight normwt;
                  output   out=&pref.sert&i.&smoke.   mean(mean   sesq)=   sum(wsum   nsum)=
sumwgt(semean)=;
                  run;

            data &pref.sert&i.&smoke;
                set &pref.sert&i.&smoke;
                group=&i.;
                      semean=sqrt(sesq/semean);
                drop _type_ _freq_;
            run;

            %IF &I. = 1 %THEN %DO;

                DATA &PREF._&SMOKE.;
                SET &PREF.SERT&I.&SMOKE.;
                RUN;
            %END;
            %ELSE %DO;

                DATA &PREF._&SMOKE.;
                      SET &PREF._&SMOKE. &PREF.SERT&I.&SMOKE.;
                RUN;

                PROC SORT DATA=&PREF._&SMOKE.;
                BY GROUP;
                RUN;
```

```
            %END;

        %END;
                %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                        WEIGHT &WGT;
                        SETENV DECWIDTH=4;
                        NEST TMP_CELL / missunit;
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA*&TABLEVAR.;
                        SUBGROUP AGE_GRP XSEXA &TABLEVAR.;
                        LEVELS 3 2 &ENDNUM.;
                        OUTPUT  SEMEAN MEAN wsum nsum
                                / TABLECELL=DEFAULT REPLACE
                                  FILENAME=&PREF.GRP&I.&SMOKE.;
                        RUN;
                %END;
                %ELSE %IF %UPCASE(&SMOKE) = CS AND %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                        PROC DESCRIPT DATA=INDAT&I. DESIGN=STRWR NOPRINT;
                        WEIGHT &WGT;
                        SETENV DECWIDTH=4;
                        NEST TMP_CELL / missunit;
                        VAR &SMOKEVAR;
                        TABLES AGE_GRP*XSEXA;
                        SUBGROUP AGE_GRP XSEXA;
                        LEVELS 3 2 ;
                        OUTPUT  SEMEAN MEAN wsum nsum
                                / TABLECELL=DEFAULT REPLACE
                                  FILENAME=&PREF.GRP&I.&SMOKE.;
                        RUN;
                %END;

        %IF %UPCASE(&SMOKE) = CS %THEN %DO;

                DATA &PREF.SER_&I.&SMOKE.;
                SET &PREF.GRP&I.&SMOKE.;
                GROUP=&I.;
                IF SEMEAN NE .;
                %IF %UPCASE(&TABLEVAR) NE TOTCON %THEN %DO;
                    KEEP &TABLEVAR. GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
                %END;
                %IF %UPCASE(&TABLEVAR) = TOTCON %THEN %DO;
                    TOTCON=1;
                    KEEP TOTCON GROUP AGE_GRP XSEXA SEMEAN MEAN wsum nsum;
                %END;
                RUN;

                /* CREATE WEIGHTS FROM 2005 DATA*/
                proc summary data=normdat&i. nway;
                        var &WGT;
                        where &den>0;
                        class age_grp xsexa;
                        output out=norm_&i. sum=normwt;

                        proc sort data=&pref.ser_&i.&smoke.;
                        by age_grp xsexa;

                        data &pref.ser_&i.&smoke.;
                        merge &pref.ser_&i.&smoke.(in=gin) norm_&i.;
                        by age_grp xsexa;
                        if gin;
                        wsum=wsum/normwt;
                        nsum=nsum/normwt;
                        sesq=normwt*semean**2;
                        run;

                        proc summary data=&pref.ser_&i.&smoke. nway;
                        var mean semean sesq wsum nsum;
                        class &tablevar.;
                        weight normwt;
                        output   out=&pref.sert&i.&smoke.   mean(mean   sesq)=   sum(wsum   nsum)=
sumwgt(semean)=;
                        run;
```

```
        data &pref.sert&i.&smoke;
            set &pref.sert&i.&smoke;
            group=&i.;
                    semean=sqrt(sesq/semean);
            drop _type_ _freq_;
        run;




        %IF &I. = 1 %THEN %DO;

        DATA &PREF._CESS;
        SET &PREF.SERT&I.&SMOKE.;
        RUN;
        %END;
        %ELSE %DO;

        DATA &PREF._CESS;
                SET &PREF._CESS &PREF.SERT&I.&SMOKE.;
            RUN;

        PROC SORT DATA=&PREF._CESS;
        BY GROUP;
        RUN;

        %END;

    %END;
%END;

%MEND;

%A_SUDAAN(XSERVAFF,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVAFF,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVAFF,BM,BMI,BMI_DN);
%A_SUDAAN(XSERVREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XSERVREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XSERVREG,BM,BMI,BMI_DN);
%A_SUDAAN(XTNEXREG,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(XTNEXREG,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(XTNEXREG,BM,BMI,BMI_DN);
%A_SUDAAN(TOTCON,RT,SM_RATE,SM_RTDN);
%A_SUDAAN(TOTCON,CS,SM_CESS,SM_CSDN);
%A_SUDAAN(TOTCON,BM,BMI,BMI_DN);

%MACRO ADDIT(PREF, TYPE);

DATA &PREF._&TYPE;
SET &PREF._&TYPE;
LENGTH BENEFIT $34. BENTYPE $50.;

BENEFIT="Healthy Behaviors";
    %IF &TYPE=RT %THEN %DO;
        BENTYPE="Non-Smoking Rate";
    %END;
    %IF &TYPE=CESS %THEN %DO;
        BENTYPE="Counselled To Quit";
    %END;
    %IF &TYPE = BM %THEN %DO;
        BENTYPE = "Percent Not Obese";
    %END;
RUN;

%MEND;

%ADDIT(C,RT);
%ADDIT(C,CESS);
%ADDIT(C,BM);
%ADDIT(M,RT);
```

```
%ADDIT(M,CESS);
%ADDIT(M,BM);
%ADDIT(R,RT);
%ADDIT(R,CESS);
%ADDIT(R,BM);
%ADDIT(S,RT);
%ADDIT(S,CESS);
%ADDIT(S,BM);


%MACRO MAKEDATA(PREF, TABLEVAR);
  DATA &PREF._SMOKE;
    SET &PREF._RT
        &PREF._CESS
        &PREF._BM
  ;

    LENGTH MAJGRP $30. REGION REGCAT $25.;

     IF       GROUP=1 THEN MAJGRP="Prime Enrollees             ";
     ELSE IF GROUP=2 THEN MAJGRP="Enrollees with Military PCM";
     ELSE IF GROUP=3 THEN MAJGRP="Enrollees with Civilian PCM";
     ELSE IF GROUP=4 THEN MAJGRP="Non-enrolled Beneficiaries ";
     ELSE IF GROUP=5 THEN MAJGRP="Active Duty                ";
     ELSE IF GROUP=6 THEN MAJGRP="Active Duty Dependents     ";
     ELSE IF GROUP=7 THEN MAJGRP="Retirees and Dependents    ";
     ELSE IF GROUP=8 THEN MAJGRP="All Beneficiaries          ";

     %IF &TABLEVAR = XSERVAFF %THEN %DO;
         IF XSERVAFF = 1 THEN REGION = 'ARMY';
         IF XSERVAFF = 2 THEN REGION = 'AIR FORCE';
         IF XSERVAFF = 3 THEN REGION = 'NAVY';
         IF XSERVAFF = 4 THEN REGION = 'OTHER';
     %END;

     %IF &TABLEVAR = XSERVREG %THEN %DO;
             REGION  =  PUT(XSERVREG,SERVREGO.);  /*JSO  08/24/2006,  Create  new  format  for
Overseas*/
     %END;

     %IF &TABLEVAR = XTNEXREG %THEN %DO;
          IF XTNEXREG=1 THEN REGION="NORTH";
         ELSE IF XTNEXREG=2 THEN REGION="SOUTH";
         ELSE IF XTNEXREG=3 THEN REGION="WEST";
         ELSE IF XTNEXREG=4 THEN REGION="OVERSEAS";
     %END;

     %IF &TABLEVAR = TOTCON %THEN %DO;
          REGION = "USA MHS";
     %END;


         REGCAT=REGION;
         DROP GROUP &TABLEVAR;

     IF &TABLEVAR NE 0;

     RUN;


%MEND MAKEDATA;

%MAKEDATA(M,XSERVAFF);
%MAKEDATA(C,TOTCON);
%MAKEDATA(R,XSERVREG);
%MAKEDATA(S,XTNEXREG);


DATA SMOKE;
SET M_SMOKE R_SMOKE S_SMOKE C_SMOKE;
SESQ = SEMEAN**2;
RENAME MEAN=SCORE wsum=n_wgt nsum=n_obs;
RUN;
```

```
/* CALCULATE COMPOSITE SCORE - AVERAGE RATE AND CESSATION*/

PROC SORT DATA=SMOKE;
BY MAJGRP REGION REGCAT;
RUN;

PROC SUMMARY DATA=SMOKE SUM;
BY MAJGRP REGION REGCAT;
VAR SCORE SESQ N_WGT N_OBS;
OUTPUT SUM= OUT=PRECOMP;
RUN;

DATA COMP(RENAME=(S_MEAN=SCORE S_SE=SEMEAN));
SET PRECOMP;
IF _FREQ_ = 3 THEN DO;
   S_MEAN=SCORE/3;
   S_SE=SQRT(SESQ)/3;
   N_OBS=round(N_OBS/3);
END;
ELSE DO;
   S_MEAN=.;
   S_SE=.;
END;
BENTYPE="Composite";
BENEFIT="Healthy Behaviors";
DROP _TYPE_ _FREQ_ SCORE SESQ;
RUN;

PROC SORT DATA=SMOKE;
BY MAJGRP BENTYPE;
RUN;

DATA BENCH;
SET SMOKE;
BY MAJGRP BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
ELSE IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
   SCORE=(SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   REGION="Benchmark";
   REGCAT="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT;
   OUTPUT;
END;
RUN;

PROC SORT DATA=SMOKE;
BY REGION BENTYPE;
RUN;

DATA BENCH2;
SET SMOKE;
```

```
BY REGION BENTYPE;
IF LAST.BENTYPE AND BENTYPE="Counselled To Quit" THEN DO;
   SCORE=&CNSLGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Non-Smoking Rate" THEN DO;
   SCORE=&NSMKGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
END;
IF LAST.BENTYPE AND BENTYPE="Percent Not Obese" THEN DO;
   SCORE=&BMIGOAL;
   SEMEAN=.;
   MAJGRP="Benchmark";
   DROP N_WGT;
   OUTPUT;
   SCORE=(SUM(&CNSLGOAL, &NSMKGOAL, &BMIGOAL))/3;
   SEMEAN=.;
   MAJGRP="Benchmark";
   BENTYPE="Composite";
   DROP N_WGT N_OBS;
   OUTPUT;
END;
RUN;

DATA SIG1;
SET SMOKE COMP;
IF BENTYPE='Non-Smoking Rate' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&NSMKGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;

   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &NSMKGOAL THEN SIG = 1;
     ELSE IF SCORE < &NSMKGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Counselled To Quit' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&CNSLGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &CNSLGOAL THEN SIG = 1;
     ELSE IF SCORE < &CNSLGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Percent Not Obese' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-&BMIGOAL)/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > &BMIGOAL THEN SIG = 1;
     ELSE IF SCORE < &BMIGOAL THEN SIG = -1;
   END;
END;
IF BENTYPE='Composite' THEN DO;
   IF SEMEAN > 0 THEN TSTAT=(SCORE-((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3))/SEMEAN;
   ELSE TSTAT=.;
   IF N_OBS > 1 THEN PVAL=(1-PROBT(ABS(TSTAT),(N_OBS-1)))*2;
   ELSE PVAL=.;
   IF PVAL GE 0.05 THEN SIG=0;
   ELSE IF PVAL < 0.05 THEN DO;
      IF SCORE > ((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = 1;
```

```
        ELSE IF SCORE <((SUM(&NSMKGOAL, &CNSLGOAL, &BMIGOAL))/3) THEN SIG = -1;
    END;
END;

DROP TSTAT PVAL;
RUN;

DATA SMOKE_ALL;
SET SIG1 BENCH BENCH2;
TIMEPD="&CURRENT.";
RUN;

PROC SORT DATA=SMOKE_ALL OUT=OUT.SMOKE;
BY MAJGRP REGION REGCAT BENTYPE;
RUN;
```

```
*****************************************************************************
*
*  Project:   DoD Reporting and Analysis 6077-410
*  Program:   LOADMPRQ.SAS
*  Purpose:   Calculate MPR Preventive Care Composites
*  Date:      4/07/2000
*  Author:    Chris Rankin
*
*  Modified:  1) 05-08-2001 By Keith Rathbun, Added SEMEAN to LOADMPRQ.SD2
*                    to accommodate the Short Reports.  Condensed some code.
*                 2) 07-15-2002 By Mike Scott, Changed PERIOD to = "April, 2001
*                    to March, 2002".
*                 3) 03-21-2003 By Mike Scott, Changed PERIOD to = "January, 2001
*                    to December, 2002".
*                 4) 04-30-2003 By Mike Scott, Changed CMPNUM1 from 4 to 5, and
*                    changed the upper limits of both DO loops from 5 to 6 because
*                    of the addition of Cholesterol Testing.
*                 5) 06-23-2003 By Mike Scott, Changed setting BENTYPE from &PERIOD
*                    to Composite.  Added TIMEPD variable.
*                 6) 06-26-2003 By Mike Scott, Updated for Q2 2003.
*                 7) 10-21-2003 By Mike Scott, Updated for Q3 2003.
*                 8) 01-07-2004 By Mike Scott, Updated for Q4 2003.
*                 9) 03-24-2004 By Mike Scott, Updated for Q1 2004.
*                10) 06-22-2004 By Regina Gramss, Updated for Q2 2004.
*                11) 09/2004    By Regina Gramss, Updated for Q3 2004.
*                12) 01/2005    By Regina Gramss, Replaced XTNEXREG with XSERVREG
*                    to produce "last conus_q" for Q4 2005
*                13) 12/2005    By Regina Gramss, Updated for Q4 2005.
*                14) 03/24/2006 By Keith Rathbun, Updated for Q2 FY 2006.
*                    %LET PERIOD = January, 2006 was the only change.
*                15) 07/12/2006 By Justin Oh, Updated for Q3 FY 2006.
*                16) 08/24/2006 By Justin Oh, change DO REG = 1 TO 15 from 1 TO 16.
*                17) 10/04/2006 By Justin Oh, Updated %LET PERIOD.
*                18) 12/20/2006 By Justin Oh, Updated %LET PERIOD October, 2006.
*                19) 04/05/2007 By Justin Oh, Updated %LET PERIOD January, 2007.
*                20) 06/22/2007 By Keith Rathbun, Updated %LET PERIOD April, 2007.
*                21) 09/04/2007 By Justin Oh, Updated %LET PERIOD July, 2007.
*                22) 01/10/2008 By Keith Rathbun, Updated %LET PERIOD October, 2007.
*                23) 04/11/2008 By Justin Oh, Updated %LET PERIOD January, 2008.
*                24) 06/13/2008 By Keith Rathbun, Updated %LET PERIOD April, 2008.
*                25) 01/06/2009 By Mike Rudacille, Updated %LET PERIOD October, 2008.
*                26) 01/16/2009 By Mike Rudacille, Changed CONUS variable to USA.
*                27) 03/11/2009 By Keith Rathbun, Updated %LET PERIOD January, 2009.
*                28) 06/22/2009 By Keith Rathbun, Updated %LET PERIOD April, 2009.
*                29) 09/30/2009 By Mike Rudacille, Updated %LET PERIOD July, 2009.
*
*     Input:    1) RFINAL.sas7bdat
*                  2) CFINAL.sas7bdat
*                  3) MFINAL.sas7bdat
*                  4) SFINAL.sas7bdat
*                  5) SMOKE.sas7bdat
*
*     Output:   loadmprq.sas7bdat
*
*     Note:      ***CHECK COMPNUM AND CMPNUM1 ASSIGNMENTS AND UPPER LIMIT OF DO LOOPS***
*
*****************************************************************************;

    OPTIONS COMPRESS=YES NOCENTER LS=124 PS=74 SOURCE SOURCE2;

    LIBNAME INLIB   ".";
    LIBNAME OUT     ".";
    LIBNAME LIBRARY "..\..\..\Data\Afinal\fmtlib";

    %LET CMPNUM1=4; /*** number of questions in first composite ***/ /*RSG 04/2005 Changed 5 to
4*/

    %LET PERIOD = July, 2009;
    %INCLUDE "..\..\LOADWEB\LOADCAHQ.INC";
```

```
      **************************************************************;
      *** Note -- take out access to care questions and composite ***;
      **************************************************************;

      data mfinal(keep=cpbmk1 compress=no);
        set inlib.mfinal(keep=majgrp cpbmk1) INLIB.CFINAL (KEEP=MAJGRP CPBMK1);
        where majgrp="All Beneficiaries";    /*RSG 02/2005 Include CONUS MHS data*/
      run;

      data mfinal;
        if _n_=1 then set mfinal;
        set inlib.mfinal(drop=cpbmk1) INLIB.CFINAL(DROP=CPBMK1) ;
      run;

      proc sort data=mfinal;          /*RSG 01/2005 - Added code to select only 1 record per majgrp
*/
      by majgrp;                      /*using xservreg, there are now 4 conus areas which caused
duplicate benchmark calcs */
      data mfinal;
      set mfinal;
      by majgrp;
      if first.majgrp;
      run;

      ************************;
      ***** Benchmarks       **;
      ************************;

      DATA BENCHMKS(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SIG);
          FORMAT   MAJGRP  $30. REGION  $25. REGCAT  $26.     /** RSG 01/2005 Increase region
format to accommodate service affiliation **/
                   BENEFIT $34. BENTYPE $50. TIMEPD $35.;   ***MJS 06/23/03 Added TIMEPD;
        SET MFINAL;

        ARRAY BENCHMK{*} GOALVAR1-GOALVAR&CMPNUM1 CPBMK1;
        DO I = 1 TO 5;   ***RSG 04/2005 Changed 6 to 5;
           SCORE   = BENCHMK{I}*100;
           SIG     = .;
           REGION  = "Benchmark";
           REGCAT  = "Benchmark";
           BENEFIT = "Preventive Care";
           IF     I = 1 THEN BENTYPE = "Prenatal Care";
           ELSE IF I = 2 THEN BENTYPE = "Mammography";
           ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
           ELSE IF I = 4 THEN BENTYPE = "Hypertension";
           /*RSG 04/2005 DELETED CHOLESTEROL*/
           ELSE IF I = 5 THEN BENTYPE = "Composite";     ***MJS 06/23/03 Changed &PERIOD to
Composite;
           TIMEPD = "&PERIOD";   ***MJS 06/23/03 Added line;
           OUTPUT;
        END;
        DROP I;
      RUN;

      DATA BENCHMKS;
        SET BENCHMKS;
        OUTPUT;
        IF MAJGRP = "All Beneficiaries" THEN DO;
           DO REG = 1 TO 15; DROP REG; /*JSO 08/24/2006, Changed Regions, 16 to 15*/
                MAJGRP = "Benchmark";
                REGION = PUT(REG,SERVREGO.);
                REGCAT = PUT(REG,SERVREGO.);
                OUTPUT;
           END;
           DO SERV = 1 TO 4; DROP SERV;
                MAJGRP = "Benchmark";
                REGION = PUT(SERV,XSERVAFF.);
                REGCAT = PUT(SERV,XSERVAFF.);
                OUTPUT;
           END;

           MAJGRP = "Benchmark";
           REGION = 'USA MHS';
           REGCAT = 'USA MHS';
```

```
      OUTPUT;
      MAJGRP = "Benchmark";
      REGION = 'NORTH';
      REGCAT = 'NORTH';
      OUTPUT;
      MAJGRP = "Benchmark";
      REGION = 'SOUTH';
      REGCAT = 'SOUTH';
      OUTPUT;
      MAJGRP = "Benchmark";
      REGION = 'WEST';
      REGCAT = 'WEST';
      OUTPUT;
      MAJGRP = "Benchmark";
      REGION = 'OVERSEAS';
      REGCAT = 'OVERSEAS';
      OUTPUT;
    END;
  RUN;

  PROC FREQ DATA=BENCHMKS;
     TABLES MAJGRP/MISSING LIST;
  RUN;

  ************************;
  *****  Scores         **;
  ************************;

  DATA SCORES(KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG N_OBS N_WGT);
      FORMAT MAJGRP  $30. REGION  $25. REGCAT  $26.    /** RSG 01/2005 Increase region format
to accommodate service affiliation **/
              BENEFIT $34. BENTYPE $50. TIMEPD $35.;   ***MJS 06/23/03 Added TIMEPD;
    SET INLIB.MFINAL INLIB.CFINAL
        INLIB.RFINAL INLIB.SFINAL;


    ARRAY SEMEANS{*} SERRV1-SERRV&CMPNUM1. CP1SE ;
    ARRAY  SCORES{*} SCORV1-SCORV&CMPNUM1. CSCOR1;
    ARRAY  SIGNIF{*} SIGV1-SIGV&CMPNUM1.   CPSIG1;
    ARRAY   NOBS {*} NOBSV1-NOBSV&CMPNUM1. CPOBS1;
    ARRAY   NWGT {*} DENV1-DENV&CMPNUM1    CPDEN1;

    DO I = 1 TO 5;   ***RSG 04/2005 Changed 6 to 5;
       SCORE  = SCORES{I};
       SEMEAN = SEMEANS{I};
       SIG    = SIGNIF{I};
       N_OBS  = NOBS{I};
       N_WGT  = NWGT{I};
       BENEFIT = "Preventive Care";
       IF     I = 1 THEN BENTYPE = "Prenatal Care";
       ELSE IF I = 2 THEN BENTYPE = "Mammography";
       ELSE IF I = 3 THEN BENTYPE = "Pap Smear";
       ELSE IF I = 4 THEN BENTYPE = "Hypertension";
       /*RSG 04/2005 DELETED CHOLESTEROL*/
       ELSE IF I = 5 THEN  BENTYPE = "Composite";    ***MJS 06/23/03 Changed &PERIOD to
Composite;
       TIMEPD = "&PERIOD";   ***MJS 06/23/03 Added line;
       OUTPUT;
    END;
  RUN;

  DATA LOADMPRQ (KEEP=MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD SCORE SEMEAN SIG
                      N_OBS N_WGT);
  SET BENCHMKS SCORES INLIB.SMOKE;
  RUN;

  PROC SORT DATA=LOADMPRQ OUT=OUT.LOADMPRQ;
  BY MAJGRP REGION;
  RUN;
```

**I.5.A   Q4FY2009\PROGRAMS\PURCHASEDLOADWEB\FAKEQ.SAS - GENERATE THE WEB LAYOUT/TEMPLATE FILE -
        RUN QUARTERLY.**

```
     ****************************************************************************
     * PROJECT:  DOD Quarterly Survey, Consumer Reports (6077-410)
     * PROGRAM:  FAKEQ.SAS
     * PURPOSE:  Generate Fake Data for Report Cards
     * AUTHOR:   Mark A. Brinkley
     *
     * MODIFIED: 1) July 2000 By Eric Schone to utilize CACRPT and CATREP
     *              include files.
     *           2) February 2001 By Keith Rathbun - More updates for
     *              Quarterly report card format.  Made FAKE datastep into
     *              a macro to handle multiple quarters.  Added QTR and
     *              PERIOD parameters.
     *           3) July 2001 By Mark Brinkley - Updated for
     *              Quarterly 2 reports
     *           4) April 2002 By Keith Rathbun - Updated DSN and %LET
     *              statements for 2002 reports and added TREND records.
     *              Removed Flu Shot.
     *           5) July 2002 By Mike Scott - Updated DSN and %LET statements
     *              for Q2 2002 reports.
     *           6) March 2003 By Mike Scott - Updated for 2003 survey.
     *           7) June 2003 By Mike Scott - Added TIMEPD variable to be set to the period
     *              or 'Trend'.  Changed from setting BENTYPE to the period or 'Trend' to
     *              setting to 'Composite'.  Updated for Q2 2003.
     *           8) July 2003 BY Mike Scott - Above for K=7 through 10 in loop DO K=0 TO 11.
     *              Added LOADCAHQ.INC.
     *           9) October 2003 By Mike Scott - Updated for Q3 2003.
     *           10) January 2004 By Mike Scott - Updated for Q4 2003.
     *           11) March 2004 By Mike Scott - Updated for Q1 2004.
     *           12) June 2004 By Regina Gramss - Updated for Q2 2004.
     *            13) September 2004 By Regina Gramss - Updated for Q3 2004, to use XTNEXREG vs
XREGION
     *           14) January 2005 By Regina Gramss - Prepare "Last Conus_q" for Q4 2005
     *              replace XTNEXREG with XSERVREG
     *           15) April 2005 By Regina Gramss - Update for Q1 2005, delete cholesterol
     *              bentype and include Healthy Behaviors composite and BMI bentype.
     *           16) July 2005 By Regina Gramss - Update for Q2 2005.
     *           17) October 2005 By Regina Gramss - Updated for Q3 2005
     *           18) December 2005 By Regina Gramss - Updated for Q4 2005
     *           19) March 2006 By Keith Rathbun - Updated for Q2 FY 2006
     *           20) July 2006 By Justin Oh - Updated for Q3 FY 2006
     *           21) 08/22/2006 By Justin Oh - Changed XSERVREG for Overseas
     *           22) 10/03/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS063_1 to HCS064_1 for Q4FY2006 reports.
     *           23) 02/02/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS064_1 to HCS071_1 for Q4FY2006 reports.
     *           24) 04/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS071_1 to HCS072_1 for Q4FY2006 reports.
     *           25) 06/22/2007 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS072_1 to HCS073_1 for Q3FY2007 reports.
     *           26) 09/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS073_1 to HCS074_1 for Q4FY2007 reports.
     *           27) 01/10/2008 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS074_1 to HCS081_1 for Q1FY2008 reports.
     *           28) 04/11/2008 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS081_1 to HCS082_1 for Q2FY2008 reports.
     *           29) 06/13/2008 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS082_1 to HCS083_1 for Q3FY2008 reports.
     *           30) 10/02/2008 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS083_1 to HCS084_1 for Q4FY2008 reports.
     *           31) 01/06/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS084_1 to HCS091_1 for Q1FY2009 reports.
     *           32) 01/16/2009 By Mike Rudacille - Changed CONUS to USA.
     *           33) 03/11/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS091_1 to HCS092_1 for Q2FY2009 reports.
     *           34) 04/11/2009 By Mike Rudacille - Updated composite definitions
     *              to reflect modifications to beneficiary reports necessary for V4
     *           35) 06/22/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS092_1 to HCS093_1 for Q3FY2009 reports.
     *           36) 09/30/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
     *              Changed input data HCS093_1 to HCS094_1 for Q4FY2009 reports.
```

```
*
* INCLUDES: 1) CACRPT.INC - Report Card Catchment Definitions
*           2) CATREP.INC - Report Card Catchment Format Defns
*
****************************************************************************;
%LET NUMQTR = 5;   ***MJS 06/18/03 Changed 4 to 5;

%LET PERIOD1 = October, 2008;
%LET PERIOD2 = January, 2009;
%LET PERIOD3 = April, 2009;
%LET PERIOD4 = July, 2009;

%LET PERIOD5 = Trend;   ***MJS 06/18/03 Added line;

%INCLUDE "LOADCAHQ.INC";   ***MJS 07/07/03 Added;

LIBNAME OUT       ".";
LIBNAME IN        "..\..\Data\AFinal";
LIBNAME LIBRARY   "..\..\Data\AFinal\fmtlib";

OPTIONS COMPRESS=YES NOFMTERR;

****************************************************************************
* CREATE TEMPORARY DATASET FOR RECODING CACSMPL TO BE COLLAPSED FOR
* REPORT CARD PURPOSES
* FOR QUARTERLY REPORTS CATCHMENT LEVEL REPORTING IS NOT DONE
* AND THEREFORE THE VALUE OF CELLP IS SET TO 1
* FOR ANNUAL REPORTING PURPOSES
* CELLP WILL NEED TO BE ASSIGNED TO GEOCELL (KEEP GEOCELL ON INPUT)
****************************************************************************;

DATA TEMP;
  SET IN.HCS094_1;
   CELLP=1;
   ***********************************************************************
   * CODE FOR XSERVREG FROM XTNEXREG
   ***********************************************************************;
    IF SERVAFF='A' THEN XSERVAFF=1;               *Army;
       ELSE IF SERVAFF='F' THEN XSERVAFF=2;       *Air Force;
       ELSE IF SERVAFF='N' THEN XSERVAFF=3;       *Navy;
       ELSE XSERVAFF=4;


    IF XTNEXREG = 1 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 1;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 2;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 3;
      ELSE XSERVREG = 4;
    END;

    IF XTNEXREG = 2 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 5;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 6;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 7;
      ELSE XSERVREG = 8;
    END;

    IF XTNEXREG = 3 THEN DO;
       IF XSERVAFF = 1 THEN XSERVREG = 9;
      ELSE IF XSERVAFF = 2 THEN XSERVREG = 10;
      ELSE IF XSERVAFF = 3 THEN XSERVREG = 11;
      ELSE XSERVREG = 12;
    END;


    IF XTNEXREG = . THEN DELETE;

RUN;

proc freq;
table xservreg*cacsmpl/ noprint out=temp;
run;

data temp2;
```

```
      length cafmt $26;
      set temp end=last;
      by xservreg;
        caf=0;
      where cacsmpl ne 9999;
        if first.xservreg then do; /* took out condition for xregion= 8 since useing xservreg now
*/
           cafmt=put(xservreg,servregf.);
           output;
        end;
        cafmt=put(cacsmpl,catrep.);
        caf=1;
        if count>60 & cafmt ne 'INV' then output;
        if last then do;
          xservreg=0;
          caf=0;
          cafmt='Benchmark';
         output;
               /** RSG 01/2005 Add in codes for service affiliation categories **/


         caf=1;

         xservreg=13;
         cafmt='Overseas Europe';
         output;
        xservreg=14;
         cafmt='Overseas Pacific';
         output;
        xservreg=15;
         cafmt='Overseas Latin America';
         output;
      xservreg=16;
        cafmt = 'ARMY';
         output;
         xservreg=17;
         cafmt = 'AIR FORCE';
         output;
         xservreg=18;
         cafmt = 'NAVY';
         output;
         xservreg=19;
         cafmt = 'OTHER';
         output;
         xservreg=20;
         cafmt = 'NORTH';
         output;
         xservreg=21;
         cafmt = 'SOUTH';
         output;
         xservreg=22;
         cafmt = 'WEST';
         output;
         xservreg=23;
         cafmt = 'OVERSEAS';
         output;
         xservreg=24;
         cafmt = 'USA MHS';
         output;
         xservreg=25;
         cafmt = 'Europe Army';
         output;
         xservreg=26;
         cafmt = 'Europe Air Force';
         output;
         xservreg=27;
         cafmt = 'Europe Navy';
         output;
         xservreg=28;
         cafmt = 'Europe Other';
         output;
         xservreg=29;
         cafmt = 'Pacific Army';
```

```
      output;
      xservreg=30;
      cafmt = 'Pacific Air Force';
      output;
      xservreg=31;
      cafmt = 'Pacific Navy';
      output;
      xservreg=32;
      cafmt = 'Pacific Other';
      output;
      xservreg=33;
      cafmt = 'Latin America Army';
      output;
      xservreg=34;
      cafmt = 'Latin America Force';
      output;
      xservreg=35;
      cafmt = 'Latin America Navy';
      output;
      xservreg=36;
      cafmt = 'Latin America Other';
      output;
    end;
  run;

  /*RSG 04/2005 order region groups the way it should appear in reports*/
  data temp3 (rename=(temp_r=xservreg));
      set temp2;
  if      xservreg=0  then temp_r=1;
  else if xservreg=24 then temp_r=2;
  else if xservreg=16 then temp_r=3;
  else if xservreg=18 then temp_r=4;
  else if xservreg=17 then temp_r=5;
  else if xservreg=19 then temp_r=6;
  else if xservreg=20 then temp_r=7;
  else if xservreg=1  then temp_r=8;
  else if xservreg=3  then temp_r=9;
  else if xservreg=2  then temp_r=10;
  else if xservreg=4  then temp_r=11;
  else if xservreg=21 then temp_r=12;
  else if xservreg=5  then temp_r=13;
  else if xservreg=7  then temp_r=14;
  else if xservreg=6  then temp_r=15;
  else if xservreg=8  then temp_r=16;
  else if xservreg=22 then temp_r=17;
  else if xservreg=9  then temp_r=18;
  else if xservreg=11 then temp_r=19;
  else if xservreg=10 then temp_r=20;
  else if xservreg=12 then temp_r=21;
  else if xservreg=23 then temp_r=22;
  else if xservreg=13 then temp_r=23;
  else if xservreg=14 then temp_r=24;
  else if xservreg=25 then temp_r=25;
  else if xservreg=26 then temp_r=26;
  else if xservreg=27 then temp_r=27;
  else if xservreg=28 then temp_r=28;
  else if xservreg=29 then temp_r=29;
  else if xservreg=30 then temp_r=30;
  else if xservreg=31 then temp_r=31;
  else if xservreg=32 then temp_r=32;
  else if xservreg=33 then temp_r=33;
  else if xservreg=34 then temp_r=34;
  else if xservreg=35 then temp_r=35;
  else if xservreg=36 then temp_r=36;
  drop xservreg;
  run;

  proc sort;
  by xservreg caf cafmt;
  run;

  data temp4;
  set temp3 end=last;
```

```
        start=_n_;
        label=cafmt;
        type='N';
        fmtname='ROWMAT';
        if last then call symput('x',_n_);

        run;

        proc format cntlin=temp4;

        proc print data=temp4;
        run;

        %MACRO FAKE;
        DATA FAKE;

           KEEP MAJGRP REGION REGCAT BENEFIT BENTYPE TIMEPD I K;   ***MJS 06/18/03 Added TIMEPD;

           LENGTH MAJGRP  $ 30
                  REGION  $ 25    /*RSG 01/2005 lengthen format to fit service affiliation*/
                  REGCAT  $ 26
                  BENTYPE $ 50
                  TIMEPD  $ 35;   ***MJS 06/18/03 Added TIMEPD;



          DO I=1 TO 8;             ** 8 Major groups **;

             MAJGRP=PUT(I,MAJOR.);

             DO J=1 TO &x;         ** Region/catchment **;

             REGCAT=PUT(J,ROWMAT.);
             RETAIN REGION;

             **RSG 01/2005 Change code to fit XSERVREG values**;
             IF SUBSTR(REGCAT,1,8) IN ('Benchmar','Overseas','OVERSEAS') OR
               SUBSTR(REGCAT,1,5)        IN         ('Pacif','Europ','Latin','North','South','West
','NORTH','SOUTH','WEST') OR
                     REGCAT IN ('ARMY','AIR FORCE','NAVY','OTHER','USA MHS') THEN REGION=REGCAT;


                DO K=1 TO 11;      ** 11 Benefits **;  /*** 04-11-09 MER ***/

                   BENEFIT=PUT(K,BEN.);

                   IF K=1 THEN DO;
                       DO L=1 TO 3;                 ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                          BENTYPE=PUT(L,GETNCARE.);   ***that replaced BENTYPE hard assignment;
                          %DO Q = 1 %TO &NUMQTR;    ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                              TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                          %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                       END;
                   END;
                   ELSE IF K=2 THEN DO;
                       DO L=1 TO 3;                 ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                          BENTYPE=PUT(L,GETCAREQ.);   ***that replaced BENTYPE hard assignment;
                          %DO Q = 1 %TO &NUMQTR;    ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                              TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                          %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                       END;
                   END;
                   ELSE IF K=3 THEN DO;
                       DO L=1 TO 5;                 ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                          BENTYPE=PUT(L,HOWWELL.);   ***that replaced BENTYPE hard assignment;
                          %DO Q = 1 %TO &NUMQTR;    ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                              TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                          %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                       END;
                   END;
                   ELSE IF K=4 THEN DO;
```

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```
                    DO L=1 TO 3;                      ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,CUSTSERV.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;     ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;
                ELSE IF K=5 THEN DO;
                    DO L=1 TO 3;                      ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,CLMSPROC.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;     ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
                END;
                ELSE IF K=6 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                             ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=7 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                             ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=8 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                             ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=9 THEN DO;
                    %DO Q = 1 %TO &NUMQTR;
                        BENTYPE = "Composite";   ***MJS 07/07/03 Added;
                        TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/   ***MJS 07/07/03
Changed BENTYPE to TIMEPD;
                    %END;                             ***MJS 07/07/03 Deleted BENTYPE="Trend" OUTPUT
after this line;
                END;
                ELSE IF K=10 THEN DO;
                    DO L=1 TO 5;                      ***MJS 06/18/03 Added L loop and BENTYPE PUT;
                        BENTYPE=PUT(L,PREVCARE.);   ***that replaced BENTYPE hard assignment;
                        %DO Q = 1 %TO &NUMQTR;     ***MJS 06/18/03 Moved loop inside L loop and
changed BENTYPE to TIMEPD;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT; /*** 02-01-2001 KRR ***/
                        %END;   ***MJS 06/18/03 Deleted BENTYPE="Trend" and OUTPUT;
                    END;
            END;
                ELSE IF K=11 THEN DO;             ***RSG 02/2005 Added for smoking scores.;
                    DO M=1 TO 4;
                        BENTYPE=PUT(M,SMOKEF.);
                        %DO Q = 1 %TO &NUMQTR;
                            TIMEPD = "&&PERIOD&Q"; OUTPUT;
                        %END;
                    END;
                END;
            END;
        END;
      END;
    RUN;
    %MEND FAKE;
    %FAKE;
```

```
/*** 12-13 MAB ***/
/*** Since quarterly files won't have catchment level data then delete ***/
DATA FAKE;
  SET FAKE;
  IF REGION=REGCAT;
RUN;

/*** 12-13 MAB ***/
/*** Need to create single benchmarks for ALL major groups ***/
DATA EXTRA;
  SET FAKE;
  IF MAJGRP="Prime Enrollees" AND REGION=REGCAT AND REGION^="Benchmark";
  MAJGRP="Benchmark";
RUN;
/*** Combine extra data with fake ***/
DATA FAKE;
  SET EXTRA FAKE;
RUN;

/*** Need to clean up data ***/
DATA OUT.FAKEQ;
  SET FAKE;

  /*** Need to set oddball records to missing ***/
  IF REGION="Benchmark" THEN SIG=.;
  if region=''|compress(regcat)='.' then delete;

  /*** Don't populate catchment areas for 4 major groups ***/
  *IF I IN(3,4,6,7) AND REGION^=REGCAT THEN DELETE;          /*** 12-13 MAB ***/

  DROP I K;

RUN;


PROC FREQ;
  TABLES MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG;   ***MJS 07/21/03 Added TIMEPD;
RUN;


ENDSAS;
```

```
*****************************************************************************
*
* PROGRAM:  MERGFINQ.SAS
* TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6077-410)
* PURPOSE:  Merge the final CAHPS and MPR Scores Databases
*           into the WEB layout preserving the order of the FAKEQ.SD2.
*
* WRITTEN:  11/09/2000 BY KEITH RATHBUN, Adapted from MERGFINL.SAS.
*
* INPUTS:    1) MPR and CAHPS Individual and Composite data sets with adjusted
*               scores, and benchmark data for quarterly DoD HCS.
*               - LOADMPRQ.SD2 - MPR Scores Database
*               - LOADCAHQ.SD2 - CAHPS Scores Database
*               - BENCHA04.SD2 - CAHPS Benchmark Database
*               - FAKEQ.SD2    - WEB Layout in Column order
*
* OUTPUT:    1) MERGFINQ.SD2 - Combined Scores Database in WEB layout
*
* INCLUDES: 1) LOADCAHQ.INC - Format definitions for CAHPS Individual
*               and composite data sets
*
* MODIFIED: 1) 07/15/2002 by Mike Scott: Updated libnames for Q2 2002.
*           2) 03/21/2003 by Mike Scott: Updated for 2003 survey.
*           3) 07/09/2003 by Mike Scott: Updated for Q2 2003.  Added TIMEPD to KEYs.
*           4) 07/23/2003 by Mike Scott: Added TIMEPD to FREQs and PRINT.
*           5) 10/21/2003 by Mike Scott: Updated for Q3 2003.
*           6) 01/07/2004 by Mike Scott: Updated for Q4 2003.
*           7) 03/24/2004 by Mike Scott: Updated for Q1 2004.
*           8) 06/22/2004 by Regina Gramss: Updated for Q2 2004.
*           9) 09/2004    by Regina Gramss: Updated for Q3 2004, Use XTNEXREG vs XREGION
*          10) 01/2005    by Regina Gramss: Changed XTNEXREG to XSERVREG to compile
*               "Last conus_q" for Q4 2005
*          11) 04/2005    by Regina Gramss: Updated for Q1 2005
*          12) 07/2005    by Regina Gramss: updated for Q2 2005
*          13) 10/2005    by Regina Gramss: Updated for Q3 2005
*          14) 12/2005    by Regina Gramss: Updated for Q4 2005
*          15) 07/2006    by Justin Oh: Updated for Q3 FY 2006
*          16) 08/22/2006 by Justin Oh: Change DO REG = 1 TO 15 from 1 TO 16
*          17) 10/03/2006 by Justin Oh - Changed libname in2 and in3 for Q4FY2006.
*          18) 12/20/2006 by Justin Oh - Changed libname in2 and in3 for Q1FY2007.
*          19) 04/05/2007 by Justin Oh - Changed libname in2 and in3 for Q2FY2007.
*          20) 04/05/2007 by Justin Oh - Added %LET RCTYPE to select RC types
*               ReportCards OR PurchasedReportCards.
*          21) 04/05/2007 by Justin Oh - Added %LET BCHTYPE to select BCH types
*               Benchmark OR PurchasedBenchmark.
*          22) 09/05/2007 by Justin Oh - Changed libname in2 and in3 for Q4FY2007.
*          23) 01/10/2008 by Keith Rathbun - Changed libname in2 and in3 for Q1FY2008.
*          24) 04/11/2008 by Justin Oh - Changed libname in2 and in3 for Q2FY2008.
*          25) 06/13/2008 by Keith Rathbun - Changed libname in2 and in3 for Q3FY2008.
*          26) 10/02/2008 by Mike Rudacille - Changed libname in2 and in3 for Q4FY2008.
*          27) 01/06/2009 by Mike Rudacille - Changed libname in2 and in3 for Q1FY2009.
*          28) 01/16/2009 by Mike Rudacille - Changed CONUS to USA.
*          29) 03/11/2009 by Keith Rathbun - Changed libname in2 and in3 for Q2FY2009.
*          30) 06/23/2009 by Keith Rathbun - Changed libname in2 and in3 for Q3FY2009.
*          31) 09/30/2009 by Mike Rudacille - Changed libname in2 and in3 for Q4FY2009.
*
* NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS      - Recode questions and generate CAHPS group files
*    - STEP2Q.SAS      - Calculate CAHPS individual adjusted scores for groups 1-7
*    - COMPOSIT.SAS    - Calculate composite adjusted scores for group 1-8
*    - PRVCOMPQ.SAS    - Calculate MPR individual and composite scores
*    - BENCHA01-04.SAS - Convert Benchmark Scores into WEB layout
*    - LOADCAHQ.SAS    - Convert Quarterly CAHPS Scores Database into WEB layout
*    - LOADMPRQ.SAS    - Convert Quarterly MPR Scores Database into WEB layout
*
* 2) The output file (MERGFINQ.SD2) will be run through the
*    MAKEHTMQ.SAS program to generate the WEB pages.
*
```

```
      ****************************************************************************
      * Assign data libraries and options
      ****************************************************************************;

      /*** SELECT PROGRAM - ReportCards OR PurchasedReportCards          ***/
      %LET RCTYPE = PurchasedReportCards;

      /*** SELECT PROGRAM - Benchmark OR PurchasedBenchmark              ***/
      %LET BCHTYPE = PurchasedBenchmark;

      LIBNAME IN1   ".";
      LIBNAME IN2   "CAHPS_ADULTQ4FY2009\Data";
      LIBNAME IN3   "..\&RCTYPE\MPR_AdultQ4FY2009";
      LIBNAME IN4   "..\&BCHTYPE\Data";
      LIBNAME OUT   ".";
      LIBNAME LIBRARY   "..\..\DATA\AFINAL\FMTLIB";

      OPTIONS PS=79 LS=232 COMPRESS=YES NOCENTER;   ***MJS 07/23/03 Changed LS from 132;

      %INCLUDE "LOADCAHQ.INC";

      ****************************************************************************
      * Construct ORDERing variable from WEB layout
      ****************************************************************************;
      DATA ORDER;
         SET IN1.FAKEQ;
         ORDER = _N_;
         LENGTH KEY $200;
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added TIMEPD;
         KEEP KEY ORDER;
      RUN;

      PROC SORT DATA=ORDER; BY KEY; RUN;

      ****************************************************************************
      * Merge the Scores Databases
      ****************************************************************************;
      DATA MERGFINQ;
         SET IN2.LOADCAHQ(IN=INCAHPQ)
             IN3.LOADMPRQ(IN=INMPRQ )
             IN4.BENCHA04(IN=INBENQ );
         SVCAHPQ = INCAHPQ;
         SVMPRQ  = INMPRQ;
         SVBENQ  = INBENQ;
         LENGTH KEY $200;
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added TIMEPD;
         KEYLEN=LENGTH(KEY);
         KEYTEST=LENGTH(BENEFIT)+LENGTH(BENTYPE)+LENGTH(MAJGRP)+LENGTH(REGION)+LENGTH(TIMEPD);
         OUTPUT;
         IF INBENQ THEN DO;
            IF MAJGRP = "All Beneficiaries" THEN DO;
               DO REG = 1 TO 24; DROP REG;  /*JSO 08/24/2006, Changed Regions, 16 to 24*/
                     MAJGRP = "Benchmark";
                     REGION = PUT(REG,SERVREGF.);
                     REGCAT = PUT(REG,SERVREGF.);
                     KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                           UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                           UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/09/03 Added
      TIMEPD;
                     OUTPUT;
               END;
               DO SERV = 1 TO 4; DROP SERV;                         ****RSG 02/2005 Add in
      serv affiliation;
                     MAJGRP = "Benchmark";
                     REGION = PUT(SERV,XSERVAFF.);
                     REGCAT = PUT(SERV,XSERVAFF.);
                     KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                           UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                           UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
                     OUTPUT;
```

```
        END;

   MAJGRP = "Benchmark";
   REGION = 'NORTH';
   REGCAT = 'NORTH';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

   MAJGRP = "Benchmark";
   REGION = 'Overseas Europe';
   REGCAT = 'Overseas Europe';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

   MAJGRP = "Benchmark";
   REGION = 'Overseas Pacific';
   REGCAT = 'Overseas Pacific';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

   MAJGRP = "Benchmark";
   REGION = 'Overseas Latin America';
   REGCAT = 'Overseas Latin America';
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

   MAJGRP = "Benchmark";
   REGION = 'SOUTH';
   REGCAT = 'SOUTH';
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

        MAJGRP = "Benchmark";
        REGION = 'WEST';
        REGCAT = 'WEST';
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

        MAJGRP = "Benchmark";
        REGION = 'OVERSEAS';
        REGCAT = 'OVERSEAS';
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

        MAJGRP = "Benchmark";
        REGION = 'USA MHS';
        REGCAT = 'USA MHS';
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
              UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
              UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));
        OUTPUT;

     END;
   END;
   IF SCORE = . THEN DELETE;

RUN;


PROC SORT DATA=MERGFINQ; BY KEY; RUN;
```

```
    ****************************************************************************
    * Append ORDERing variable to the merged Scores database file
    ****************************************************************************;
    DATA MERGFINQ MISSING;
       MERGE MERGFINQ(IN=IN1) ORDER(IN=IN2);
       BY KEY;

       LENGTH FLAG $30;
       IF IN1 AND IN2 THEN FLAG = "IN SCORES DB AND LAYOUT";
       ELSE IF    IN1 THEN FLAG = "IN SCORES DB ONLY";
       ELSE IF    IN2 THEN FLAG = "IN LAYOUT ONLY";

       LENGTH SOURCE $30;
       IF SVCAHPQ = 1 THEN SOURCE = "CAHPS     ";
       IF SVMPRQ  = 1 THEN SOURCE = "MPR       ";
       IF SVBENQ  = 1 THEN SOURCE = "BENCHMARK ";

       IF IN1 AND NOT IN2 THEN OUTPUT MISSING; *Missing from layout;
       IF IN1 THEN OUTPUT MERGFINQ;
    RUN;

    ****************************************************************************
    * Reorder file according to WEB layout
    ****************************************************************************;
    PROC SORT DATA=MERGFINQ OUT=OUT.MERGFINQ; BY ORDER; RUN;

    DATA FAKEQ;
       SET IN1.FAKEQ;
       ORDER = _N_;
    RUN;

    DATA LAYONLY;
       MERGE FAKEQ(IN=IN1) OUT.MERGFINQ(IN=IN2 KEEP=ORDER);
       BY ORDER;
       IF IN1 AND NOT IN2;
    RUN;

    TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6663-410)";
    TITLE2 "Program Name: MERGFINQ.SAS By Keith Rathbun";
    TITLE3 "Program Inputs: MPR and CAHPS Combined Scores data sets and WEB Layout";
    TITLE4 "Program Outputs: MERGFINQ.sas7bdat - Merged Final Scores Database for input to
MAKEHTML.SAS";

    TITLE5 "MERGFINQ.sas7bdat Data source counts";
    PROC FREQ DATA=OUT.MERGFINQ;
    TABLES SOURCE FLAG SVCAHPQ SVMPRQ SVBENQ
                        SVCAHPQ*SVMPRQ*SVBENQ
         /MISSING LIST;
    RUN;

    TITLE5 "MERGFINQ.sas7bdat Data attribute counts";
    PROC FREQ DATA=OUT.MERGFINQ;
    TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/23/03 Added TIMEPD*/
           REGION*REGCAT
         /MISSING LIST;
    RUN;

    TITLE5 "LAYONLY Data attribute counts";
    PROC FREQ DATA=LAYONLY;
    TABLES BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/23/03 Added TIMEPD*/
           REGION*REGCAT
         /MISSING LIST;
    RUN;

    TITLE5 "No matching record found in LAYOUT file (FAKEQ.sas7bdat)";
    PROC PRINT DATA=MISSING;
    VAR MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD;   ***MJS 07/23/03 Added TIMEPD;
    RUN;
```

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```
     *****************************************************************************
     *
     *   PROGRAM:  CONUS_Q.SAS
     *   TASK:     Quarterly DOD HEALTH CARE SURVEY ANALYSIS (6077-410)
     *   PURPOSE:  Generate CAHPS CONUS scores and perform significance tests.
     *
     *   WRITTEN:  11/13/2000 BY KEITH RATHBUN, Adapted from CONUS_A.SAS.
     *             Merged SIGNIF_A.SAS funtionality.
     *
     *   MODIFIED: 1) 04/10/2002 BY KEITH RATHBUN, Update for 2002 survey:
     *                  changed code to process 4 rolling quarters.
     *             2) 04/30/2002 By Eric Schone, to calculate & test trend.
     *             3) 07/17/2002 BY MIKE SCOTT, Updated %LET statements for
     *                  Q2 2002.
     *             4) 03/21/2003 BY MIKE SCOTT, Updated for 2003 survey.
     *             5) 07/08/2003 BY MIKE SCOTT, Updated for Q2 2003.  Changed BENTYPE="&PERIOD4"
     *                  to BENTYPE="Composite".  Added TIMEPD to KEY and FREQ.
     *             6) 07/23/2003 BY MIKE SCOTT, Added TIMEPD constraint to DATA LASTQTR.
     *             7) 10/21/2003 BY MIKE SCOTT, Updated for Q3 2003.
     *             8) 01/07/2004 BY MIKE SCOTT, Updated for Q4 2003.
     *             9) 01/28/2004 BY MIKE SCOTT, Updated LSTCONUS to point to Q3_2003t.
     *            10) 03/23/2004 BY MIKE SCOTT, Updated for Q1 2004.
     *            11) 06/22/2004 BY REGINA GRAMSS, Updated for Q2 2004, Added conditions
     *                  to avoid error messages in data sigtest2 step (ensure degree of freedom
     *                  is not zero for the probt function) and data trend steps (ensure division
     *                  by zero is not taking place).
     *            12) 09/2004 BY REGINA GRAMSS, Updated for Q3, 2004.  Added in codes
     *                  for trend calculations (per Eric Schone). Revised to use XTNEXREG.
     *            13) 01/2005 BY REGINA GRAMSS, Changed codes for XTNEXREG to XSERVREG
     *                  to incorporate service affiliation into regions.  Change
     *                  adjustments made to trend calculation to what was previous.
     *            14) 06/2005 BY REGINA GRAMSS, Included relevant codes from TOTAL_Q.SAS
     *                  to consolidate both programs into one.  TOTAL_Q.SAS will no longer
     *                  be used. Also put in codes to set trend score to missing if any of the
     *                  previous scores are missing.
     *            15) 10/2005 BY REGINA GRAMSS, Updated for Q3 2005
     *            16) 12/2005 BY REGINA GRAMSS, Updated for Q4 2005
     *            17) 07/2006 BY Justin Oh, Updated for Q3 FY 2006
     *            18) 10/03/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            19) 12/20/2006 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            20) 02/02/2007 By Justin Oh - Added "s" to Healthy Behaviors.
     *            21) 02/16/2007 By Justin Oh - Added if statement to change BENEFIT
     *                  "Heathly Behavior" to Healthy "Behaviors" for the Last CONUS_Q.SD2 data
     *            22) 04/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            23) 04/05/2007 by Justin Oh - Added %LET BCHTYPE to select BCH types
     *                  Benchmark OR PurchasedBenchmark.
     *            24) 04/05/2007 by Justin Oh - Added changes to select RC types
     *                  ReportCards OR PurchasedReportCards.
     *            25) 10/03/2007 by Justin Oh - Removed code that removed Civilian PCM.
     *                  IF "&RCTYPE" = 'ReportCards' AND
     *                  MAJGRP="Enrollees with Civilian PCM" THEN DELETE;
     *            26) 10/03/2007 by Justin Oh - Removed %LET BCHTYPE to select BCH types
     *                  Benchmark OR PurchasedBenchmark.
     *            27) 09/05/2007 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            28) 01/10/2008 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            29) 04/11/2008 By Justin Oh - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            30) 10/02/2008 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS.
     *            31) 01/06/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS
     *            32) 01/16/2009 By Mike Rudacille - Changed CONUS to USA where appropriate
     *            33) 03/11/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
     *                  Changed %LET LSTCONUS
     *            34) 04/11/2009 By Mike Rudacille - Changed BENTYPE and Composite definitions
```

```
*                  to reflect modifications to beneficiary reports necessary for V4
*            35) 06/22/2009 By Keith Rathbun - Changed %LET PERIOD1 - PERIOD4
*                Changed %LET LSTCONUS
*            36) 09/30/2009 By Mike Rudacille - Changed %LET PERIOD1 - PERIOD4
*                Changed %LET LSTCONUS
*
*    INPUTS:  1) MERGFINQ.sas7bdat - Scores Database in WEB Layout
*             2) FAKEQ.sas7bdat - Scores Database WEB Layout
*             3) CONUS_Q.sas7bdat - Previous Quarters Combined CAHPS/MPR Scores Database in
WEB layout
*
*    OUTPUT:  1) TOTAL_Q.sas7bdat - Combined CAHPS/MPR Scores Database in WEB layout
*             2) LT30Q.sas7bdat - Records with <= 30 observations
*             3) CONUS_Q.sas7bdat - Current Quarters Combined CAHPS/MPR Scores Database in
WEB layout
*
*
*     NOTES:
*
* 1) The following steps need to be run prior to this program:
*    - STEP1Q.SAS  - Recode questions and generate group files
*    - STEP2Q.SAS  - Calculate individual adjusted scores for group 1-7
*    - COMPOSIT.SAS - Calculate composite adjusted scores for group 1-8
*    - LOADCAHPQ.SAS - Combine all questionnaire (CAHPS) scores together
*    - PRVCOMPQ.SAS - Calculate preventative measure scores for group1-8
*    - SMOKING_BMI.SAS    - Calculate healthy behaviors scores for group1-8
*    - LOADMPRQ.SAS    - Combined preventative and healthy behaviors scores
*    - MERGFINQ.SAS - Merge the final CAHPS and MPR Scores Databases
*
*****************************************************************************
* Assign data libraries and options
*****************************************************************************;

    LIBNAME IN1  ".";
    LIBNAME OUT  ".";

    OPTIONS PS=79 LS=132 COMPRESS=YES NOCENTER MPRINT MLOGIC;

*****************************************************************************;
* Define GLOBAL parameters for last CONUSQ.sas7bdat, rolling quarters, and
* input dataset name.
*
* IMPORTANT: Update these GLOBALS each quarter prior to rerunning program.
*****************************************************************************;
%LET LSTCONUS = ..\..\..\Q3FY2009t\Programs\PurchasedLoadweb;

%LET PERIOD1 = October, 2008;
%LET PERIOD2 = January, 2009;
%LET PERIOD3 = April, 2009;
%LET PERIOD4 = July, 2009;

%LET DSN     = MERGFINQ;

*****************************************************************************;
* Set up empty template file for data merge purposes and set first time flag
*****************************************************************************;
DATA INIT;
    SET IN1.&DSN;
    DELETE;
RUN;
%LET FLAG = 0;
*****************************************************************************
*
* Process Macro Input Parameters:
*
* 1) BENTYPE = Benefit Type
* 2) MAJGRP = Major Group
* 3) TYPE = INDIVIDUAL or COMPOSITE
* 4) BENEFIT = COMPOSITE Benefit Type
*
*****************************************************************************;
%MACRO PROCESS(BENTYPE=,MAJGRP=,TYPE=,BENEFIT=);
DATA TEMP;
    SET IN1.&DSN END=FINISHED;
```

```
   %IF "&TYPE" = "INDIVIDUAL" %THEN %DO;
       WHERE BENTYPE = "&BENTYPE" AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             /*SUBSTR(REGION,1,5) NOT IN("Bench","USA") AND*/
             /*SUBSTR(REGCAT,1,5) NOT IN("Bench","USA") AND*/
             SUBSTR(REGION,1,5) NE "Bench" AND SUBSTR(REGION,1,3) NE "USA" AND
             SUBSTR(REGCAT,1,5) NE "Bench" AND SUBSTR(REGCAT,1,3) NE "USA" AND
             REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
   %END;
   %ELSE %IF "&TYPE" = "COMPOSITE" %THEN %DO;
       WHERE BENTYPE = &BENTYPE AND "&MAJGRP" = MAJGRP AND REGION = REGCAT AND
             BENEFIT = "&BENEFIT" AND
             /*SUBSTR(REGION,1,5) NOT IN("Bench","USA") AND*/
             /*SUBSTR(REGCAT,1,5) NOT IN("Bench","USA") AND*/
             SUBSTR(REGION,1,5) NE "Bench" AND SUBSTR(REGION,1,3) NE "USA" AND
             SUBSTR(REGCAT,1,5) NE "Bench" AND SUBSTR(REGCAT,1,3) NE "USA" AND
             REGION NOT IN ("ARMY","AIR FORCE","NAVY","OTHER");
   %END;
   %ELSE %DO;
       PUT "ERROR - Invalid Type = &TYPE";
   %END;

   IF SUBSTR(REGION,1,5) IN ('North','South') THEN DO;
      IF      SUBSTR(REGION,1,5)='North' THEN REGCON=1;
      ELSE IF SUBSTR(REGION,1,5)='South' THEN REGCON=2;
      TOTCON=1;
      IF      SUBSTR(REGION,7,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,7,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,7,4)='Navy'      THEN SERVICE=3;
      ELSE                                        SERVICE=4;
   END;
   ELSE IF SUBSTR(REGION,1,4)='West' THEN DO;
      REGCON=3;
      TOTCON=1;
      IF      SUBSTR(REGION,6,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,6,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,6,4)='Navy'      THEN SERVICE=3;
      ELSE                                        SERVICE=4;
   END;
   ELSE IF SUBSTR(REGION,1,6)='Europe' THEN DO;
      REGCON=4;
      TOTCON=2;
      IF      SUBSTR(REGION,8,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,8,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,8,4)='Navy'      THEN SERVICE=3;
      ELSE                                        SERVICE=4;
   END;
      ELSE IF SUBSTR(REGION,1,7)='Pacific' THEN DO;
      REGCON=5;
      TOTCON=2;
      IF      SUBSTR(REGION,9,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,9,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,9,4)='Navy'      THEN SERVICE=3;
      ELSE                                        SERVICE=4;
   END;
   ELSE IF SUBSTR(REGION,1,13)='Latin America' THEN DO;
      REGCON=6;
      TOTCON=2;
      IF      SUBSTR(REGION,15,4)='Army'      THEN SERVICE=1;
      ELSE IF SUBSTR(REGION,15,9)='Air Force' THEN SERVICE=2;
      ELSE IF SUBSTR(REGION,15,4)='Navy'      THEN SERVICE=3;
      ELSE                                         SERVICE=4;
   END;


RUN;

****************************************************************************;
* RSG 01/2005 Calc. total Service Affiliation Scores        *;
****************************************************************************;
PROC SORT DATA=TEMP;
BY SERVICE;

DATA TEMP2;
   SET TEMP;
```

```
   BY SERVICE;
      length key $200;
   IF FIRST.SERVICE THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;      RETAIN SUMWGT1;
      SUMSE2 = 0;       RETAIN SUMSE2;
      SUMWGT2 = 0;      RETAIN SUMWGT2;
      N_OBS1 = 0;       RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;


KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.SERVICE THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE   = SUMSCOR1/SUMWGT1;
         SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
         SCORE   = .;
         SEMEAN  = .;
      END;

      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "USA";
      FLAG    = "USA";
      IF SERVICE=1 THEN REGION = "ARMY";
      IF SERVICE=2 THEN REGION = "AIR FORCE";
      IF SERVICE=3 THEN REGION = "NAVY";
      IF SERVICE=4 THEN REGION = "OTHER";
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
   END;
END;
RUN;
*************************************************************************;
* RSG 01/2005 Calc. Total Region scores                                *;
*************************************************************************;
PROC SORT DATA=TEMP;
BY REGCON;
DATA TEMP3;
   SET TEMP;
   BY REGCON;
      length key $200;
   IF FIRST.REGCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;      RETAIN SUMWGT1;
      SUMSE2 = 0;       RETAIN SUMSE2;
      SUMWGT2 = 0;      RETAIN SUMWGT2;
      N_OBS1 = 0;       RETAIN N_OBS1;
   END;

   IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
   IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
   IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
   IF N_OBS  NE . THEN N_OBS1 + N_OBS;

KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
     FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

   IF LAST.REGCON THEN DO;

      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE = SUMSCOR1/SUMWGT1;
```

```
            SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
         END;
         ELSE DO;
            SCORE   = .;
            SEMEAN  = .;
         END;
         N_OBS   = N_OBS1;
         N_WGT   = SUMWGT1;
         SOURCE  = "REGION";
         FLAG    = "REGION";
         IF REGCON=1 THEN REGION = "NORTH";
         IF REGCON=2 THEN REGION = "SOUTH";
         IF REGCON=3 THEN REGION = "WEST";
         IF REGCON=4 THEN REGION = "Overseas Europe";
         IF REGCON=5 THEN REGION = "Overseas Pacific";
         IF REGCON=6 THEN REGION = "Overseas Latin America";

         REGCAT  = REGION;
         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
         OUTPUT;
      END;
RUN;

*************************************************************************;
* RSG 01/2005 Calc. Total CONUS Scores                                 *;
* MER 01/2009 Changed CONUS to USA                                     *;
*************************************************************************;
PROC SORT DATA=TEMP;
BY TOTCON;
DATA TEMP4;
   SET TEMP END=FINISHED;
   BY TOTCON;
      length key $200;
   IF FIRST.TOTCON THEN DO;
      SUMSCOR1 = 0;    RETAIN SUMSCOR1;
      SUMWGT1 = 0;     RETAIN SUMWGT1;
      SUMSE2 = 0;      RETAIN SUMSE2;
      SUMWGT2 = 0;     RETAIN SUMWGT2;
      N_OBS1 = 0;      RETAIN N_OBS1;
   END;


      IF SCORE  NE . AND N_WGT NE . THEN SUMSCOR1 = SUMSCOR1 + (SCORE*N_WGT);
      IF N_WGT  NE . THEN SUMWGT1  = SUMWGT1  + N_WGT;
      IF SEMEAN NE . AND N_WGT NE . THEN SUMSE2 = SUMSE2 + (SEMEAN*N_WGT)**2;
      IF N_OBS  NE . THEN N_OBS1 + N_OBS;

   IF LAST.TOTCON THEN DO;



      IF SUMWGT1 NOTIN (.,0) THEN DO;
         SCORE   = SUMSCOR1/SUMWGT1;
         SEMEAN  = SQRT(SUMSE2)/SUMWGT1;
      END;
      ELSE DO;
         SCORE   = .;
         SEMEAN  = .;
      END;
      N_OBS   = N_OBS1;
      N_WGT   = SUMWGT1;
      SOURCE  = "USA";
      FLAG    = "USA";
   IF TOTCON=1 THEN REGION = "USA MHS";
   IF TOTCON=2 THEN REGION = "OVERSEAS";
      REGCAT  = REGION;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      OUTPUT;
END;
```

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```
      KEEP MAJGRP REGION REGCAT BENTYPE BENEFIT TIMEPD SIG SCORE SEMEAN N_OBS N_WGT
            FLAG SOURCE SUMSCOR1 SUMWGT1 SUMSE2 KEY;   ***MJS 07/08/03 Added TIMEPD;

      RUN;

      %IF &FLAG = 0 %THEN %DO;
         DATA FINAL;
            SET INIT TEMP2 TEMP3 TEMP4;
         RUN;
      %END;
      %ELSE %DO;
         DATA FINAL;
            SET FINAL TEMP2 TEMP3 TEMP4;
         RUN;
      %END;
      %LET FLAG = 1;

      %MEND;


      *****************************************************************************
      * Create CONUS for Active Duty - Individual
      *****************************************************************************;
      %PROCESS(BENTYPE=Claims Handled Correctly        ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Courteous Customer Service       ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Explains so You Can Understand    ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting Information              ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting to See a Specialist      ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting Treatment               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Listens Carefully               ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Shows Respect                   ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Spends Time with You            ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait for Routine Visit          ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait for Urgent Care            ,MAJGRP=Active Duty, TYPE=INDIVIDUAL);


      *****************************************************************************
      * Create CONUS for Active Duty Dependents - Individual
      *****************************************************************************;
      %PROCESS(BENTYPE=Claims Handled Correctly             ,MAJGRP=Active Duty Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Courteous  Customer  Service         ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Explains  so  You  Can  Understand    ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting  Information                 ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting  to  See  a  Specialist      ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Getting  Treatment                  ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Listens  Carefully                  ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Shows  Respect                      ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Spends  Time  with  You             ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait  for  Routine  Visit           ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Wait  for  Urgent  Care             ,MAJGRP=Active  Duty  Dependents,
    TYPE=INDIVIDUAL);


      *****************************************************************************
      * Create CONUS for Enrollees with Civilian PCM - Individual
      *****************************************************************************;
      %PROCESS(BENTYPE=Claims Handled Correctly            ,MAJGRP=Enrollees with Civilian PCM,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees  with  Civilian  PCM,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Courteous Customer Service          ,MAJGRP=Enrollees  with  Civilian  PCM,
    TYPE=INDIVIDUAL);
      %PROCESS(BENTYPE=Explains so You Can Understand      ,MAJGRP=Enrollees  with  Civilian  PCM,
    TYPE=INDIVIDUAL);
```

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```
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Enrollees with Civilian PCM,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Enrollees with Military PCM - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Enrollees with Military PCM,
TYPE=INDIVIDUAL);

    ****************************************************************************
    * Create CONUS for Non-enrolled Beneficiaries - Individual
    ****************************************************************************;
    %PROCESS(BENTYPE=Claims Handled Correctly          ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Claims Handled in a Reasonable Time,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Courteous Customer Service        ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Explains so You Can Understand     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Information               ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting to See a Specialist       ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Getting Treatment                 ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Listens Carefully                 ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Shows Respect                     ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends Time with You              ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Routine Visit            ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait for Urgent Care              ,MAJGRP=Non-enrolled Beneficiaries,
TYPE=INDIVIDUAL);

    ************************************************************************
```

```
     * Create CONUS for Prime Enrollees - Individual
     ****************************************************************************;
     %PROCESS(BENTYPE=Claims Handled Correctly                  ,MAJGRP=Prime Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=Prime   Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Courteous  Customer  Service               ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Explains  so  You  Can  Understand         ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting  Information                       ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting  to  See  a  Specialist           ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting  Treatment                        ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Listens  Carefully                        ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Shows  Respect                            ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Spends  Time  with  You                   ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Wait  for  Routine  Visit                 ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Wait  for  Urgent  Care                   ,MAJGRP=Prime  Enrollees,
TYPE=INDIVIDUAL);


     ****************************************************************************
     * Create CONUS for Retirees and Dependents - Individual
     ****************************************************************************;
     %PROCESS(BENTYPE=Claims Handled Correctly                  ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Claims  Handled  in  a  Reasonable  Time,MAJGRP=Retirees  and  Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Courteous Customer Service               ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Explains so You Can Understand           ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting Information                      ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting to See a Specialist             ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting Treatment                       ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Listens Carefully                       ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Shows Respect                           ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Spends Time with You                    ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Wait for Routine Visit                  ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Wait for Urgent Care                    ,MAJGRP=Retirees and Dependents,
TYPE=INDIVIDUAL);


     ****************************************************************************
     * Create CONUS for All Beneficiaries - Individual
     ****************************************************************************;
     %PROCESS(BENTYPE=Claims Handled Correctly                  ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Claims   Handled   in   a   Reasonable   Time,MAJGRP=All   Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Courteous  Customer  Service              ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Explains  so  You  Can  Understand        ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting  Information                      ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting  to  See  a  Specialist          ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Getting  Treatment                       ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
     %PROCESS(BENTYPE=Listens  Carefully                       ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
```

```
    %PROCESS(BENTYPE=Shows  Respect                                ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Spends  Time  with  You                       ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Routine  Visit                     ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);
    %PROCESS(BENTYPE=Wait  for  Urgent  Care                       ,MAJGRP=All  Beneficiaries,
TYPE=INDIVIDUAL);


    ******************************************************************************
    * Process Quarterly CONUS Composites
    ******************************************************************************
    ******************************************************************************
    * Create CONUS for Claims Processing - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                              ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);     ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",       MAJGRP=Non-enrolled       Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                      ,
TYPE=COMPOSITE,BENEFIT=Claims Processing);


    ******************************************************************************
    * Create CONUS for Customer Service - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                            ,
TYPE=COMPOSITE,BENEFIT=Customer  Service);     ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",       MAJGRP=Non-enrolled       Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Customer Service);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                      ,
TYPE=COMPOSITE,BENEFIT=Customer Service);


    ******************************************************************************
    * Create CONUS for Getting Care Quickly - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",  MAJGRP=Active   Duty                            ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty   Dependents              ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Civilian      PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",      MAJGRP=Enrollees      with      Military      PCM,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",       MAJGRP=Non-enrolled       Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",  MAJGRP=Prime   Enrollees                         ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents           ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
    %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                      ,
TYPE=COMPOSITE,BENEFIT=Getting Care Quickly);
```

```
     ***************************************************************************
     * Create CONUS for Getting Needed Care - Quarterly
     ***************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                                ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);    ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled       Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                           ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
     %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents              ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);
     %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                         ,
TYPE=COMPOSITE,BENEFIT=Getting Needed Care);


     ***************************************************************************
     * Create CONUS for Health Care - Quarterly
     ***************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                                ,
TYPE=COMPOSITE,BENEFIT=Health  Care);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=Health Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Health Care);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled       Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Health Care);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                           ,
TYPE=COMPOSITE,BENEFIT=Health Care);
     %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents              ,
TYPE=COMPOSITE,BENEFIT=Health Care);
     %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                         ,
TYPE=COMPOSITE,BENEFIT=Health Care);


     ***************************************************************************
     * Create CONUS for Health Plan - Quarterly
     ***************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                                ,
TYPE=COMPOSITE,BENEFIT=Health  Plan);       ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Military     PCM,
TYPE=COMPOSITE,BENEFIT=Health Plan);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Non-enrolled       Beneficiaries       ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
     %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                           ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
     %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents              ,
TYPE=COMPOSITE,BENEFIT=Health Plan);
     %PROCESS(BENTYPE="Composite",   MAJGRP=All   Beneficiaries                         ,
TYPE=COMPOSITE,BENEFIT=Health Plan);


     ***************************************************************************
     * Create CONUS for How Well Doctors Communicate - Quarterly
     ***************************************************************************;
     %PROCESS(BENTYPE="Composite",  MAJGRP=Active  Duty                                ,
TYPE=COMPOSITE,BENEFIT=How   Well   Doctors   Communicate);        ***MJS   07/08/03   Changed
BENTYPE="&PERIOD4" to BENTYPE="Composite";
     %PROCESS(BENTYPE="Composite",   MAJGRP=Active    Duty    Dependents               ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
     %PROCESS(BENTYPE="Composite",        MAJGRP=Enrollees     with      Civilian     PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
```

```
    %PROCESS(BENTYPE="Composite",          MAJGRP=Enrollees          with          Military          PCM,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Non-enrolled          Beneficiaries          ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                    ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents                       ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=How Well Doctors Communicate);

    ****************************************************************************
    * Create CONUS for Primary Care Manager - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",   MAJGRP=Active   Duty                                        ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);     ***MJS 07/08/03 Changed BENTYPE="&PERIOD4" to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",    MAJGRP=Active    Duty    Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Enrollees          with          Civilian          PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Enrollees          with          Military          PCM,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Non-enrolled          Beneficiaries          ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                    ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents                       ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=Primary Care Manager);

    ****************************************************************************
    * Create CONUS for Specialty Care - Quarterly
    ****************************************************************************;
    %PROCESS(BENTYPE="Composite",    MAJGRP=Active    Duty                                       ,
TYPE=COMPOSITE,BENEFIT=Specialty   Care);        ***MJS  07/08/03  Changed  BENTYPE="&PERIOD4"  to
BENTYPE="Composite";
    %PROCESS(BENTYPE="Composite",    MAJGRP=Active    Duty    Dependents                        ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Enrollees          with          Civilian          PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Enrollees          with          Military          PCM,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",          MAJGRP=Non-enrolled          Beneficiaries          ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",   MAJGRP=Prime   Enrollees                                    ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=Retirees    and    Dependents                       ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);
    %PROCESS(BENTYPE="Composite",    MAJGRP=All    Beneficiaries                                ,
TYPE=COMPOSITE,BENEFIT=Specialty Care);

    ****************************************************************************
    * Extract ORDER and KEY from the WEB Layout file.  TEMPQ will be used
    * as place holders for missing records.  FAKEQ will be used for adding
    * new records.
    ****************************************************************************;
    DATA FAKEQ;
      SET IN1.FAKEQ;
        length key $200;
      SIG = .;
      SCORE = .;
      ORDER = _N_;
      KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;

    RUN;
    PROC SORT DATA=FAKEQ OUT=TEMPQ;      BY KEY; RUN;
    PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

    ****************************************************************************
    * Append BENCHMARK records to CAHPS records and perform significance tests
```

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```
    ****************************************************************************;
    DATA BENCHMRK(KEEP=MAJGRP BENEFIT BENTYPE SEMEAN SCORE);
       SET IN1.&DSN;
       WHERE SUBSTR(REGION,1,5) = "Bench" AND SVMPRQ = 0;
    RUN;
    Data abnchmrk(keep=benefit bentype ascore);
    set benchmrk;
    where upcase(majgrp)='ALL BENEFICIARIES';
    rename score=ascore;
    run;
    proc sort; by benefit bentype;
    proc sort data=benchmrk; by benefit bentype;
    data benchmrk;
    merge benchmrk abnchmrk; by benefit bentype;run;
    PROC SORT DATA=BENCHMRK; BY MAJGRP BENEFIT BENTYPE; RUN;

    PROC SORT DATA=FINAL; BY KEY; RUN;

    DATA CONUS_Q;
       MERGE FINAL(IN=IN1) FAKEQ(IN=IN2);
       BY KEY;
       IF IN1;
    RUN;
    PROC SORT DATA=CONUS_Q; BY MAJGRP BENEFIT BENTYPE; RUN;

    ****************************************************************************
    * Perform significance tests for CONUS scores
    ****************************************************************************;
    DATA SIGTEST1;
       MERGE CONUS_Q(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
       BY MAJGRP BENEFIT BENTYPE;
       length key $200;
       TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
       IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1)); /** RSG 06/22/2004 - PUT
CONDITION TO AVOID DF=0 WHICH CAUSES ERROR FOR PROBT FUNCTION **/
       ELSE TEST = .; /** RSG 06/22/2004 - ADDED FOR CASES WITH N_OBS = 1 OR LESS SINCE PROBT
CAN'T BE PERFORMED AND WOULD RESULT IN TEST = MISSING ANYWAY **/
       SIG = 0;
       IF TEST < 0.05 AND TEST NE . THEN SIG = 1; /** RSG 06/22/2004 - ADDED CONDITION "TEST NE
." IN CASE MISSING IS CONSIDERED LESS THAN 0.05 **/
       IF SCORE < BSCORE THEN SIG = -SIG;


       KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
             UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
             UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
       SOURCE = "USA_Q";
       FLAG   = "USA_Q";
       IF SIN;
       score=score+ascore-bscore;
    RUN;
    PROC SORT DATA=SIGTEST1; BY KEY; RUN;

    ****************************************************************************
    * Extract CAHPS scores to perform significance tests
    ****************************************************************************;
    DATA CAHPS MPR bench;
       SET IN1.&DSN;
       ****************************************************************************
       * Significance tests have already been performed for MPR scores,
       * so remove from file.
       ****************************************************************************;
       IF SVMPRQ = 1 THEN OUTPUT MPR;
       IF SVMPRQ = 0 THEN do;
        if majgrp ne 'Benchmark' then OUTPUT CAHPS;
        else output bench; end;
    RUN;


    PROC SORT DATA=CAHPS;
       BY MAJGRP BENEFIT BENTYPE;
    RUN;


    ****************************************************************************
```

```
      * Perform significance tests for CAHPS scores
      ****************************************************************************;
      DATA SIGTEST2;
         MERGE CAHPS(IN=SIN) BENCHMRK(RENAME=(SCORE=BSCORE SEMEAN=BSEMEAN));
         BY MAJGRP BENEFIT BENTYPE;
         TEMP = (SCORE-BSCORE)/SQRT(BSEMEAN**2+SEMEAN**2);
         IF N_OBS > 1 THEN TEST = 2*(1-PROBT(ABS(TEMP),N_OBS-1));  /** RSG 06/22/2004 PUT N_OBS >
1 CONDITION TO AVOID ERRORS BECAUSE PROBT CAN NOT HANDLE DF=0 **/
         ELSE TEST = .;
         SIG = 0;
         IF N_OBS >= 30 AND TEST < 0.05 THEN SIG = 1;
         IF SCORE < BSCORE THEN SIG = -SIG;
         IF SIN;
         score=score+ascore-bscore;
         RUN;
      proc sort data=bench; by majgrp benefit bentype;
      data sigtest2;
      set sigtest2 bench; by majgrp benefit bentype;
      PROC SORT DATA=SIGTEST2; BY KEY; RUN;

      ******************************************************************************
      * When NOT 1st quarter: Get records from previous quarters
      ****************************************************************************;
      %MACRO LASTQTR;
         ****************************************************************************
         * Input composite records from previous quarters.
         ************************************************************************;
         LIBNAME IN2 "&LSTCONUS";
         DATA LASTQTR (drop=key2); /*RSG 10/2005 - KEY2 WAS CREATED AT END OF PROG TO HELP
                                    SET TREND TO MISSING FOR SCORES MISSING IN ANY QUARTERS
                                    THIS SHOULD BE DROPPED AND RESET AT THE END OF PROG*/
            SET IN2.CONUS_Qr (DROP=KEY);

      /*** Change BENEFIT "Heathly Behavior" to Healthy "Behaviors" JSO 02/16/2007 ***/
            IF BENEFIT = 'Healthy Behavior' THEN BENEFIT = 'Healthy Behaviors';

      /*** Change SOURCE and FLAG from "CONUS_Q" to "USA_Q" MER 01/29/2009 ***/
      /*** Change REGION and REGCAT from "CONUS MHS to USA MHS" MER 01/29/2009 ***/
            IF SOURCE = 'CONUS_Q' THEN SOURCE = 'USA_Q';
            IF FLAG = 'CONUS_Q' THEN FLAG = 'USA_Q';
            IF REGION = 'CONUS MHS' THEN REGION = 'USA MHS';
            IF REGCAT = 'CONUS MHS' THEN REGCAT = 'USA MHS';

            IF timepd IN ("&PERIOD1","&PERIOD2","&PERIOD3") AND
              (REGION = REGCAT) AND
               BENEFIT IN ("Getting Needed Care",
                           "Getting Care Quickly",
                           "How Well Doctors Communicate",
                           "Customer Service",
                           "Claims Processing",
                           "Health Care",
                           "Health Plan",
                           "Primary Care Manager",
                           "Specialty Care",
                           "Preventive Care",
                           "Healthy Behaviors") & TIMEPD NE "Trend";


         KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
               UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
               UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));

         RUN;
      %MEND LASTQTR;
      %LASTQTR;

      PROC SORT DATA=LASTQTR(DROP=ORDER); BY KEY; RUN;

      DATA LASTQTR;
         MERGE TEMPQ(IN=IN1) LASTQTR(IN=IN2);
         BY KEY;
         IF IN1 AND IN2;
      RUN;
```

```
PROC SORT DATA=MPR; BY KEY; RUN;

****************************************************************************
* Combine previously created records with the new file
****************************************************************************;
DATA COMBINE OUT.LT30Q;
   SET SIGTEST1 SIGTEST2 LASTQTR MPR;
   BY KEY;
   if timepd="&period1" then period=1;   ***MJS 07/08/03 Changed from bentype="&period1";
   if timepd="&period2" then period=2;   ***MJS 07/08/03 Changed from bentype="&period2";
   if timepd="&period3" then period=3;   ***MJS 07/08/03 Changed from bentype="&period3";
   if timepd="&period4" then period=4;   ***MJS 07/08/03 Changed from bentype="&period4";
   ****************************************************************************
   * Remove N_OBS < 30 OR N_WGT < 200
   ****************************************************************************;
   IF (N_OBS < 30 OR N_WGT < 200) AND (MAJGRP NE "Benchmark") AND
      (REGION NE "Benchmark")
       THEN OUTPUT OUT.LT30Q;
   ELSE OUTPUT COMBINE;
RUN;

data trend;
set combine;
where period ne . ;
if period<4|benefit="Preventive Care" then score=score/100;

proc sort data=trend;
by majgrp region regcat benefit bentype period;
run;

data avg(keep=majgrp region regcat benefit t_obs a_period a_score twgt bentype) ;
set trend;   by majgrp region regcat benefit bentype period;
if majgrp="Benchmark"|region="Benchmark" then n_wgt=1;
if first.majgrp|first.region|first.regcat|first.benefit|first.bentype then do;
t_obs=0;
t_score=0;
twgt=0;
t_period=0;
end;
t_obs+n_obs;
t_Score+n_wgt*score;
twgt+n_wgt;
t_period+period*n_wgt;
 if last.majgrp|last.region|last.regcat|last.benefit|last.bentype then do;
    if twgt notin (.,0) then do;
       a_score=t_score/twgt;
       a_period=t_period/twgt;
    end;
    else do;
       a_score=.;
       a_period=.;
    end;
    output;
 end;
RUN;

data trend2(drop=score) btrend(keep=majgrp benefit bentype trend serr);
merge trend avg;  by majgrp region regcat benefit bentype;
if majgrp="Benchmark"|region="Benchmark" then n_wgt=1;
if first.majgrp|first.region|first.regcat|first.benefit|first.bentype then do;
t_score=0;
t_se=0;
t_period=0;
end;
t_se+((n_wgt**2)*(semean**2));
t_score+n_wgt*(score-a_score)*(period-a_period);
t_period+n_wgt*(period-a_period)**2;
if last.majgrp|last.region|last.regcat|last.benefit|last.bentype then do;
if t_period ne 0 then do;   /* RSG 06/22/2004 Added to avoid division by zero*/
   trend=t_score/t_period;
   serr=sqrt(t_se/(t_period*twgt));
end;
else do;
```

```
        trend=.;
        serr=.;
      end;
      if region="Benchmark"|majgrp="Benchmark" then output btrend;
      output trend2;
      end;
      proc sort data=trend2; by majgrp benefit bentype;RUN;
      proc sort data=btrend; by majgrp benefit bentype;
      data trend3(rename=(trend=score));
      merge trend2 btrend(rename=(trend=btrend serr=bserr));
      by majgrp benefit bentype;
        length key $200;
      if ^(region="Benchmark"|majgrp="Benchmark") then do;
      ttrend=trend-btrend;
      serr=sqrt((serr**2)+(bserr**2));
      sig=0;
      if serr > 0 and t_obs notin (.,0) then test= 2*(1-probt(abs(ttrend/serr),t_obs));   /* RSG
06/22/2004 Added to avoid division by zero*/
      else test = .;
      if test<.05 & test ne . then sig=1;
      if sig=1 & ttrend<0 then sig=-1;
      end;
      timepd="Trend";
        KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
            UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
            UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/08/03 Added TIMEPD;
      run;

      proc sort data=trend3(drop=t_obs twgt a_score a_period t_score t_se t_period serr
       bserr btrend ttrend order); by key;
       data trend4 ;
       merge trend3(in=din) fakeq(in=cin); by key;
       if din;
       RUN;


      data combine2;
      set combine trend4;RUN;

      proc sort; by key;
      data combine3 dupe;
      set combine2; by key;
      if ^(first.key & last.key) then output dupe;
      output combine3;
      proc print data=dupe;run;

      /* RSG 06/2005 - set trend to missing for component/composite
         scores with missing scores in any of the quarter*/
      data misses (keep=key2) all;
      set combine3;
      length key2 $200.;
      KEY2 = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
                UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
                UPCASE(TRIM(REGION));
      if score = . then output misses;
      output all;
      run;
      proc sort data=misses;
      by key2;
      proc sort data=all;
      by key2;
      run;

      data combine4;
      merge all (in=a) misses (in=b);
      by key2;
      if a and b then do;
        if timepd = "Trend" then score = .;
      end;
      run;

      **************************************************************************
      * Create place holders for missing records
      **************************************************************************;
```

```
DATA FAKEONLY;
   MERGE COMBINE4(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;

RUN;


********************************************************************************
* Combine all of the missing records with the existing records to generate
* the complete WEB layout file.
*******************************************************************************;
DATA CONUS_Q;
   SET FAKEONLY COMBINE4;
   BY KEY;
   *********************************************************************
   * Convert CAHPS Composites and Individual to 1-100 scale
   *******************************************************************;
   IF timepd="Trend" OR (timepd="&PERIOD4" & benefit ne "Preventive Care")
      then
        SCORE = SCORE*100;
RUN;

PROC SORT DATA=CONUS_Q; BY ORDER; RUN;

DATA FAKEQ;
   SET IN1.FAKEQ;
   SIG = .;
   SCORE = .;
   ORDER = _N_;
   KEY = UPCASE(TRIM(BENEFIT)) || UPCASE(TRIM(BENTYPE)) ||
         UPCASE(TRIM(MAJGRP))  || UPCASE(TRIM(REGCAT))  ||
         UPCASE(TRIM(REGION))  || UPCASE(TRIM(TIMEPD));   ***MJS 07/31/03 Added TIMEPD;

RUN;
PROC SORT DATA=FAKEQ OUT=TEMPQ;        BY KEY; RUN;
PROC SORT DATA=FAKEQ(KEEP=ORDER KEY); BY KEY; RUN;

PROC SORT DATA=CONUS_Q out=OUT.CONUS_Q;
BY KEY;
RUN;

DATA FAKEONLY;
   MERGE OUT.CONUS_Q(IN=IN1) TEMPQ(IN=IN2);
   BY KEY;
   SOURCE = "FAKE ONLY";
   FLAG   = "FAKE ONLY";
   IF IN2 AND NOT IN1;
RUN;

DATA TOTAL_Q;
   SET FAKEONLY OUT.CONUS_Q;
   BY KEY;
   IF MAJGRP="All Beneficiaries" then MAJGRP="All Users";
   IF MAJGRP="Non-enrolled Beneficiaries" then MAJGRP="Standard/Extra Users";
   IF BENEFIT="Primary Care Manager" THEN BENEFIT="Personal Doctor";   /*MJS 02/05/2003*/
   /* 11/14/2005 RSG - ADDED IN THESE CODE TO CAPITALIZE ALL WORDS IN TITLE */
   /*IF BENTYPE = "Problems Getting Referral to Specialist       "
      THEN BENTYPE = "Problems Getting Referral To Specialist  ";
   IF BENTYPE = "Delays in Care while Awaiting Approval          "
      THEN BENTYPE = "Delays In Care While Awaiting Approval    ";
   IF BENTYPE = "Advice over Telephone                          "
      THEN BENTYPE = "Advice Over Telephone                     ";
   IF BENTYPE = "Wait for Routine Visit                         "
      THEN BENTYPE = "Wait For Routine Visit                    ";
   IF BENTYPE = "Wait for Urgent Care                           "
      THEN BENTYPE = "Wait For Urgent Care                      ";
   IF BENTYPE = "Wait More than 15 Minutes Past Appointment     "
      THEN BENTYPE = "Wait More Than 15 Minutes Past Appointment";
   IF BENTYPE = "Explains so You can Understand                 "
      THEN BENTYPE = "Explains So You Can Understand            ";
   IF BENTYPE = "Spends Time with You                           "
      THEN BENTYPE = "Spends Time With You                      ";
```

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```
    IF BENTYPE = "Courteous and Respectful                    "
       THEN BENTYPE = "Courteous And Respectful                ";
    IF BENTYPE = "Problem Getting Help from Customer Service    "
       THEN BENTYPE = "Problem Getting Help From Customer Service";
    IF BENTYPE = "Problem with Paperwork                       "
       THEN BENTYPE = "Problem With Paperwork                   ";
    IF BENTYPE = "Claims Handled in a Reasonable Time          "
       THEN BENTYPE = "Claims Handled In A Reasonable Time      ";*/
    IF substr(region,1,5) in ('Latin','Europ','Pacif')|Region='Overseas Latin America'
     then delete;

RUN;

PROC SORT DATA=TOTAL_Q OUT=OUT.TOTAL_Q; BY ORDER; RUN;

TITLE1 "Quarterly DOD Health Survey Scores/Report Cards (6401-904)";
TITLE2 "Program Name: CONUS_Q.SAS By Keith Rathbun";
TITLE3 "Program Inputs: MERGFINQ.sas7bdat - Scores Database in WEB Layout";
TITLE4 "Program Outputs: TOTAL_Q.sas7bdat - USA Scores Database in WEB layout";

PROC FREQ;
TABLES SIG FLAG SOURCE BENEFIT BENTYPE MAJGRP REGION REGCAT TIMEPD   /*MJS 07/08/03 Added
TIMEPD*/
        REGION*REGCAT
        /MISSING LIST;
RUN;
```

APPENDIX J

SAS CODE FOR 2008 TRICARE PURCHASED CARE CONSUMER WATCH - QUARTERS I-IV AND COMBINED ANNUAL

```
*********************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-CONUS.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE FOR CONUS DATA.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/2005 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  09/01/2006 Lucy Lu FOR FY 3 2006.
* UPDATE:  10/05/2006 Lucy Lu FOR FY 4 2006.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNT4Q ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* MODIFIED 8/29/2007 BY LUCY LU TO RUN CONSUMERWATCH-MACRO-COMB.INC
*          STARTING Q4 2007 CONSUMERWATCH_R(REGION) AND CONSUMERWATCH_CONUS RUN A SINGLE
*          MACRO TO PRODUCE CHARTS FOR BOTH PRIME ENROLLEES AND CIVILIAN PCM POPULATION
* MODIFIED 5/14/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING THE VALUE OF
*            'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*            FOR  'Courteous and Helpful Office Staff'.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\&DAT.LOADWEB\TOTAL_Q.SD2
*
* OUTPUT : INTO EXCEL SPREADSHEET
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO-COMB.INC
*********************************************************************************;


/*************************/
/* UPDATE REGIONAL LIBNAMES */
/*************************/

/* LIBNAME IS EMBEDDED IN MACRO PROGRAM */


/*******************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/*******************************************/

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

%LET PERIOD4    = 'July, 2009';        *CURRENT QUARTER;
%LET PERIOD3    = 'April, 2009';
%LET PERIOD2    = 'January, 2009';
%LET PERIOD1    = 'October, 2008';


TITLE "6401-904 DOD CONSUMER WATCH &PERIOD4 ";

%INCLUDE "CONSUMERWATCH-MACRO-COMB.INC";


%RUNCW(AREA=USA MHS,
       FOLDER=CONUSMHS,
       CURRENT=CURNTR.TOTAL_Q);
```

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```
*****************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-R.SAS
* PURPOSE: CALL CONSUMERWATCH MACRO PROGRAM
*          TO PRODUCE EXCEL TABLE FOR REGIONS.
*
* WRITTEN: 02/10/2005 BY LUCY LU FOR Q4 2004 DATA.
*
* UPDATE:  4/26/2005 FOR Q1 2005.
* UPDATE:  8/4/2005 FOR Q2 2005.
* UPDATE:  12/15/05 FOR Q4 2005.
* UPDATE:  04/04/2006 FOR Q2 FISCAL YEAR 2006, LUCY Lu. STARTING THIS QUARTER,
*          THE PERIOD IS CHANGED TO FISCAL YEAR.
* UPDATE:  08/31/2006 FOR Q3 FISCAL YEAR 2006, LUCY Lu. REGIONAL CHANGE TO
*          OVERSEAS EUROPE AND OVERSEAS PACIFIC.
* MODIFIED 7/30/2007 BY LUCY LU
*          UNIFY THE PERDIOD MACRO VARIABLES WITH BENEFICIARY REPORT CARDS PROGRAMS
*          CURRNT  ===> PERIOD4
*          CURRNTQ ===> PERIOD4Q
*          PREV1   ===> PERIOD3
*          PREV1Q  ===> PERIOD3Q
*          PREV2   ===> PERIOD2
*          PREV2Q  ===> PERION2Q
*          PREV3   ===> PERIOD1
*          PREV3Q  ===> PERIOND1Q
* MODIFIED 8/29/2007 BY LUCY LU TO RUN CONSUMERWATCH-MACRO-COMB.INC
*          STARTING Q4 2007 CONSUMERWATCH_R(REGION) AND CONSUMERWATCH_CONUS RUN A SINGLE
*          MACRO TO PRODUCE CHARTS FOR BOTH ENROLLEES WITH MILITARY PCM AND CIVILIAN PCM.
* UPDATED  12/27/2008 BY LUCY LU FOR Q1 FY 2008
* MODIFIED 5/14/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING THE VALUE OF
*             'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*             RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*             FOR  'Courteous and Helpful Office Staff'.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\&DAT.LOADWEB\TOTAL_Q.SD2
*
* OUTPUT : INTO EXCEL SPREADSHEET
*
* PROGRAM TO CALL: CONSUMERWATCH-MACRO-COMB.INC
*****************************************************************************;


/***************************/
/* UPDATE REGIONAL LIBNAMES */
/***************************/

/* LIBNAME IS EMBEDDED IN MACRO PROGRAM */


/******************************************/
/* TIME PERIOD MACROS: UPDATE EACH QUARTER */
/******************************************/

*starting 2006, the period is changed to fiscal year, LLU 4/5/06;

%LET PERIOD4   = 'July, 2009';      *CURRENT QUARTER;
%LET PERIOD3   = 'April, 2009';
%LET PERIOD2   = 'January, 2009';
%LET PERIOD1   = 'October, 2008';


TITLE "6401-904 DOD CONSUMER WATCH &PERIOD4 ";


%INCLUDE "CONSUMERWATCH-MACRO-COMB.INC"/SOURCE2;
```

```
%RUNCW(AREA=NORTH,
       FOLDER=North,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=SOUTH,
       FOLDER=South,
       CURRENT=CURNTR.TOTAL_Q);
%RUNCW(AREA=WEST,
       FOLDER=West,
       CURRENT=CURNTR.TOTAL_Q);
```

```
********************************************************************************
* PROJECT: 6077-420
* PROGRAM: CONSUMERWATCH-MACRO-COMB.INC
* PURPOSE: To produce numbers that go into data sheet in Excel to produce graphs
*          for regional consumer watch
* AUTHOR : MIKI SATAKE
* DATE   : 4/24/01
* UPDATED: 7/16/01 FOR QUARTER 2 BY NATALIE JUSTH
* UPDATED: 10/16/01 FOR QUARTER 3 BY NATALIE JUSTH
* UPDATED: 1/11/02 FOR QUARTER 4 BY NATALIE JUSTH
* UPDATED AND RENAMED: 4/9/02 FOR QUARTER 1 2002 BY NATALIE JUSTH
* UPDATED: 7/5/02 FOR QUARTER 2 2002 BY NATALIE JUSTH
* UPDATED: 7/15/02 FOR QUARTER 3 2002 BY NATALIE JUSTH
* UPDATED: 11/12/02 FOR QUARTER 4 2002 BY NATALIE JUSTH
* UPDATED: 4/3/03 FOR QUARTER 1 2003 BY NATALIE JUSTH
* UPDATED: 5/19/03 FOR QUARTER 2 2003 BY NATALIE JUSTH
* UPDATED: 8/28/03 FOR QUARTER 3 2003 BY NATALIE JUSTH
* UPDATED: 11/14/03 FOR QUARTER 4 2003 BY NATALIE JUSTH
* UPDATED: 05/18/2004 FOR QUARTER 1 2004 BY KEITH RATHBUN
* UPDATED: 06/30/2004 FOR QUARTER 2 2004 BY LUCY LU
* UPDATED: 06/30/2004 FOR QUARTER 3 2004 BY LUCY LU. CHANGING XREGION TO XTNEXREG.
* UPDATED: 10/07/2004 BY LUCY LU. ADD THE CODE TO COMPARE CONSUMER WATCH
*          WITH REPORT CARDS IN SCORES AND SIGNIFICANCE.*
* MODIFIED 2/10/05 BY LUCY LU:
*          1). CREATE UNIVERSAL MACRO PROGRAM BASED ON PROGRAM CONSUMERWATCH-R.SAS
*              TO ELIMINATE REDUNDANCY AND INCREASE THE EFFECTIVENESS OF PROGRAMMING.
*          2). ADD ADDITIONAL PREVENTION MEASURE "SMOKING CESSATION"
*              INTO PREVENTIVE CARE TABLE.
* MODIFIED 06/2/2005 BY LUCY LU FOR Q1 2005:
*          1). REMOVE CHOLESTEROL MEASUREMENT AND ADD BMI MEASUREMENT
*          2). COMMENT OUT DISENROLL CODE--NO DISENROLL DATA IN Q1 2005
*          3). ADD SPECIALIST RATING.
* MODIFIED 11/16/2006 BY LUCY LU FOR FY Q4 2006
*           ADD PURCHASE CARE VERSION-- CHANGE PRIME ENROLLEE TO
*           Enrollees with Civilian PCM.
* MODIFIED 6/4/2007 BY LUCY LU. UNIFY THE MACRO PROGRAMS FOR CONSUMER WATCH.
*          !! NEED TO DEFIND MACRO VARIABLE &POP IN SAS PROGRAMS:
*          DIRECT CARE CONSUMDER WATCH:  &POP=='Prime Enrollees'
*          PURCHASE CARE CONSUMDER WATCH:  &POP=='Enrollees with Civilian PCM'
* MODIFIED 8/30/2007 BY LUCY LU
*          1). COMBINE CONSUMERWATCH-MACRO.INC and CONSUMERWATCH-MACRO_PURCHASE.INC
*              PRODUCE CHARTS CONTAINING BOTH DIRECT CARE AND PURCAHSE CARE DATA
*          2). CREATE DUMMY ID FOR MERGE. SAS 9 doesn't allow merge without by variable
* MODIFIED 9/4/2007 BY LUCY LU. START Q4 2007,
*          DIRECT CARE CONSUMER WATCH &POP='Enrollees with Military PCM'
* MODIFIED 5/14/09 BY LUCY LU
*          1.MACRO INCLUDE PROGRAM IS MODIFIED BY REMOVING VALUE OF
*           'Courteous and Helpful Office Staff'. THE PROGRAM WILL DELETE
*            RELATED CODE.
*          2.THE EXCEL AND WORD TEMPLATES ARE MODIFIED TO REMOVE THE CHARTS
*           FOR  'Courteous and Helpful Office Staff'.
*
* INPUT  : DATA FROM CONSUMER REPORTS: ..\..\PROGRAMS\&DAT.LOADWEB\TOTAL_Q.SD2
*
* OUTPUT : INTO EXCEL SPREADSHEET
********************************************************************************;


OPTIONS PS=60 LS=120 ERRORS=2 NOCENTER NOFMTERR NOXWAIT SPOOL MPRINT;


%MACRO RUNCW (AREA=,         /* Region/Service/conus                    */
              FOLDER=,       /* Folder containing excel template        */
              CURRENT=,      /* Libname and dataset for the current quarter */
             );

x "COPY TEMPLATE-COMB.XLS &FOLDER.\&FOLDER._Purchased_Care.XLS";

DATA _NULL_;
```

```
      X=SLEEP(1);
   RUN;

   X "START &FOLDER.\&FOLDER._Purchased_Care.XLS";
   DATA _NULL_;
      X=SLEEP(2);
   RUN;

   FILENAME CMDS DDE "EXCEL|SYSTEM";
   DATA _NULL_;
      FILE CMDS;
      PUT '[app.minimize()]';
   RUN;


   %MACRO RUNPOP(MAJPOP=, POP=,DAT=);

   TITLE2 "&AREA.";
   LIBNAME CURNTR "..\&DAT.Loadweb";

   /* This macro pulls data from the specified dataset to be used in the Consumer Watch */
   %MACRO GETDATA (MAJGRP=,    /* Prime enrollee or civilian PCM  */
                   REGION=,    /* Value of variable REGION  */
                   REGCAT=,    /* Value of variable REGCAT  */
                   BENEFIT=,   /* Value of variable BENEFIT */
                   TIMEPD=,    /* Value of variable TIMEPD  */
                   OUTDATA=,   /* Name of output data set    */
                   FIGURE=     /* Figure number in consumer watch reports */
                   );

   PROC FREQ NOPRINT DATA=&CURRENT;
      WHERE MAJGRP = &MAJPOP
        AND REGION IN &REGION
        AND REGCAT IN &REGCAT
        AND BENEFIT IN &BENEFIT
        AND BENTYPE = 'Composite'
        AND TIMEPD = &TIMEPD;
      TABLES          MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SCORE*N_OBS*N_WGT*SIG/OUT=&OUTDATA
(DROP=COUNT PERCENT);
   RUN;

   %MEND GETDATA;

   %MACRO NEWSCORE (FIGURE=);
   /* This macro re-calculates SCORE based on the quarterly benchmark */
   %DO QUARTER=1 %TO 4;

   DATA FIG&FIGURE&QUARTER FIG&FIGURE.B&QUARTER(KEEP=SCORE N);
      SET FIG&FIGURE.P&QUARTER;
      N=1;                          * DUMMY ID FOR NEXT MERGE STEP;
      IF REGION='Benchmark' THEN OUTPUT FIG&FIGURE.B&QUARTER;
         ELSE OUTPUT FIG&FIGURE&QUARTER;

   RUN;

   /*ADD CODE HERE TO PRESERVE ABOVE DATASET FOR LATER COMPARISON. LLU 10/7/04*/

   DATA CFIG&FIGURE&QUARTER;
      SET FIG&FIGURE&QUARTER;

   KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
   RUN;


   DATA FIG&FIGURE.P&QUARTER(DROP=RSCORE);
      MERGE FIG&FIGURE.B&QUARTER(RENAME=(SCORE=RSCORE))
            FIG&FIGURE&QUARTER;
   BY N;
   *   SCORE=SCORE-RSCORE;
   RUN;
   %END;
   %MEND NEWSCORE;
```

```
%MACRO COMBDATA(FIGURE=);

DATA &POP.FIG&FIGURE(DROP=BSCORE);
   SET BENCH FIG&FIGURE.P1 FIG&FIGURE.P4 FIG&FIGURE.P3 FIG&FIGURE.P2;
   RETAIN BSCORE;
   IF REGION = 'Benchmark' THEN DO;
      ROW = 3;
      BSCORE=SCORE;
   END;
   ELSE IF TIMEPD = &PERIOD1 THEN DO;
      ROW = 4;
 *     SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = &PERIOD2 THEN DO;
      ROW = 5;
    *   SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = &PERIOD3 THEN DO;
      ROW = 6;
    *  SCORE=SCORE+BSCORE;
      IF (N_OBS<30 OR N_WGT<200) THEN SCORE=.;
   END;
   ELSE IF TIMEPD = &PERIOD4 THEN DO;
      ROW=7;
 *     SCORE=SCORE+BSCORE;
   END;
   &POP.SCORE = SCORE;;   *3/4/08 LLu, increase the score by 100 to align with fig. 5-10;
   &POP.SIG = SIG;
RUN;
PROC SORT;
   BY ROW;
RUN;

%MEND COMBDATA;

*******************************************************************************
* FIGURE 1: Health Care Rating
*******************************************************************************;
TITLE2 'Figure 1: Health Care Rating';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD=&PERIOD4,
          OUTDATA=FIG1P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD=&PERIOD3,
          OUTDATA=FIG1P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD=&PERIOD2,
          OUTDATA=FIG1P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Care'),
          TIMEPD=&PERIOD1,
          OUTDATA=FIG1P1);
%NEWSCORE(FIGURE=1);
%COMBDATA(FIGURE=1);
```

```
*******************************************************************************
* FIGURE 2: Health Plan Rating
*******************************************************************************;
TITLE2 'Figure 2: Health Plan Rating';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD=&PERIOD4,
          OUTDATA=FIG2P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD=&PERIOD3,
          OUTDATA=FIG2P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD=&PERIOD2,
          OUTDATA=FIG2P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Health Plan'),
          TIMEPD=&PERIOD1,
          OUTDATA=FIG2P1);
%NEWSCORE(FIGURE=2);
%COMBDATA(FIGURE=2);


*******************************************************************************
* FIGURE 3: Personal Provider Rating
*******************************************************************************;
TITLE2 'Figure 3: Personal Provider Rating';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD=&PERIOD4,
          OUTDATA=FIG3P4);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD=&PERIOD3,
          OUTDATA=FIG3P3);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
          BENEFIT=('Personal Doctor'),
          TIMEPD=&PERIOD2,
          OUTDATA=FIG3P2);
%GETDATA (MAJGRP=&MAJPOP,
          REGION=("&AREA",'Benchmark'),
          REGCAT=("&AREA",'Benchmark'),
```

```
                BENEFIT=('Personal Doctor'),
                TIMEPD=&PERIOD1,
                OUTDATA=FIG3P1);
%NEWSCORE(FIGURE=3);
%COMBDATA(FIGURE=3);


********************************************************************************
* FIGURE 4: Specialist Rating--added for Q1 2005, LLu 6/2/05
********************************************************************************;
TITLE2 'Figure 4: Specialist Rating';

%GETDATA (MAJGRP=&MAJPOP,
                REGION=('Benchmark'),
                REGCAT=('Benchmark'),
                BENEFIT=('Specialty Care'),
                TIMEPD=&PERIOD4,
                OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Specialty Care'),
                TIMEPD=&PERIOD4,
                OUTDATA=FIG4P4);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Specialty Care'),
                TIMEPD=&PERIOD3,
                OUTDATA=FIG4P3);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Specialty Care'),
                TIMEPD=&PERIOD2,
                OUTDATA=FIG4P2);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Specialty Care'),
                TIMEPD=&PERIOD1,
                OUTDATA=FIG4P1);
%NEWSCORE(FIGURE=4);
%COMBDATA(FIGURE=4);


********************************************************************************
* FIGURE 5 & 6: Access Composites
********************************************************************************;
TITLE2 'Figure 5 & 6: Access Composites';


%GETDATA (MAJGRP=&MAJPOP,
                REGION=('Benchmark'),
                REGCAT=('Benchmark'),
                BENEFIT=('Getting Needed Care','Getting Care Quickly'),
                TIMEPD=&PERIOD4,
                OUTDATA=BENCH);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Getting Needed Care','Getting Care Quickly'),
                TIMEPD=&PERIOD4,
                OUTDATA=FIG5P4);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Getting Needed Care','Getting Care Quickly'),
                TIMEPD=&PERIOD3,
                OUTDATA=FIG5P3);
%GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Getting Needed Care','Getting Care Quickly'),
```

```
                TIMEPD=&PERIOD2,
                OUTDATA=FIG5P2);
        %GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Getting Needed Care','Getting Care Quickly'),
                TIMEPD=&PERIOD1,
                OUTDATA=FIG5P1);

    /*Use macro for figures 5-10 */

    %MACRO COMPSCORE (FIGNUM=
                    );

    %DO QUARTER = 1 %TO 4;

    DATA FIG&FIGNUM.P&QUARTER FIGB&QUARTER(KEEP=SCORE BENEFIT SIG);
        SET FIG&FIGNUM.P&QUARTER;
        IF REGION = 'Benchmark' THEN OUTPUT FIGB&QUARTER;
            ELSE OUTPUT FIG&FIGNUM.P&QUARTER;
    RUN;
    PROC SORT DATA=FIG&FIGNUM.P&QUARTER;
        BY BENEFIT;
    RUN;
    PROC SORT DATA=FIGB&QUARTER;
        BY BENEFIT;
    RUN;


    /*ADD CODE HERE TO PRESERVE THE SCORES IN CONUS_Q DATASET FOR LATER COMPARISON. LLU
10/7/04*/

    DATA CFIG&FIGNUM.&QUARTER;
        SET FIG&FIGNUM.P&QUARTER;

    KEEP MAJGRP REGION BENEFIT BENTYPE TIMEPD SCORE SIG;
    RUN;


    DATA FIG&FIGNUM.&QUARTER(DROP=RSCORE);
        MERGE FIGB&QUARTER(RENAME=(SCORE=RSCORE))
            FIG&FIGNUM.P&QUARTER;
        BY BENEFIT;
     *  SCORE=SCORE-RSCORE;
    RUN;
    %END;

    %MEND COMPSCORE;

    %COMPSCORE (FIGNUM=5);

    DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
        COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
        COL4(DROP=SCORE RENAME=(SCORE1=COL4))             /*LLU 10/8/04, TO PRESERVE KEY VARS FOR
LATER COMPARISON*/
        COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
        COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
        COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
            ;
        SET BENCH FIG54 FIG53 FIG52 FIG51;
        BY BENEFIT;
        RETAIN BSCORE;
        IF REGION = 'Benchmark' THEN DO;
          BSCORE=SCORE;
            ROW = 18;
            SCORE1 = SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD1 THEN DO;
            ROW = 18;
     *      SCORE=BSCORE+SCORE;
            IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
                ELSE SCORE1=SCORE;
        END;
        ELSE IF TIMEPD = &PERIOD2 THEN DO;
```

```
        ROW = 19;
  *     SCORE=BSCORE+SCORE;
        IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
           ELSE SCORE1=SCORE;
     END;
     ELSE IF TIMEPD = &PERIOD3 THEN DO;
        ROW = 20;
  *     SCORE=BSCORE+SCORE;
        IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
           ELSE SCORE1=SCORE;
     END;
     ELSE IF TIMEPD = &PERIOD4 THEN DO;
        ROW = 21;
  *     SCORE=BSCORE+SCORE;
        SCORE1 = SCORE;
     END;

     IF (BENEFIT = 'Getting Needed Care' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
     IF (BENEFIT = 'Getting Needed Care' AND REGION = 'Benchmark') THEN OUTPUT COL3;
     IF (BENEFIT = 'Getting Care Quickly' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
     IF (BENEFIT = 'Getting Care Quickly' AND REGION = 'Benchmark') THEN OUTPUT COL5;

RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;


/*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 5. LLU 10/7/04*/

DATA FIG5A;
   MERGE COL2 COL6;
  BY ROW;
RUN;

DATA FIG5B;
   MERGE  COL4 COL7;
  BY ROW;
RUN;

DATA FIG5AB;
   SET FIG5A FIG5B;
  BY ROW;
RUN;



DATA &POP.FIG5;
   MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
   BY ROW;
RUN;
/*
DATA &POP.FIG6;
   MERGE COL4(KEEP=ROW COL4) COL5 COL7;
   BY ROW;
RUN;
*/


*****************************************************************************
* FIGURE 7:  Doctors Communicate
*****************************************************************************;
TITLE2 'Figure 7 :  Doctors Communicate';

%GETDATA (MAJGRP=&MAJPOP,
          REGION=('Benchmark'),
          REGCAT=('Benchmark'),
          BENEFIT=('How Well Doctors Communicate'),
          TIMEPD=&PERIOD4,
          OUTDATA=BENCH);
```

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```
        %GETDATA (MAJGRP=&MAJPOP,
                  REGION=("&AREA",'Benchmark'),
                  REGCAT=("&AREA",'Benchmark'),
                  BENEFIT=('How Well Doctors Communicate'),
                  TIMEPD=&PERIOD4,
                  OUTDATA=FIG7P4);
        %GETDATA (MAJGRP=&MAJPOP,
                  REGION=("&AREA",'Benchmark'),
                  REGCAT=("&AREA",'Benchmark'),
                  BENEFIT=('How Well Doctors Communicate'),
                  TIMEPD=&PERIOD3,
                  OUTDATA=FIG7P3);
        %GETDATA (MAJGRP=&MAJPOP,
                  REGION=("&AREA",'Benchmark'),
                  REGCAT=("&AREA",'Benchmark'),
                  BENEFIT=('How Well Doctors Communicate'),
                  TIMEPD=&PERIOD2,
                  OUTDATA=FIG7P2);
        %GETDATA (MAJGRP=&MAJPOP,
                  REGION=("&AREA",'Benchmark'),
                  REGCAT=("&AREA",'Benchmark'),
                  BENEFIT=('How Well Doctors Communicate'),
                  TIMEPD=&PERIOD1,
                  OUTDATA=FIG7P1);

     %COMPSCORE (FIGNUM=7);

     DATA COL4(DROP=SCORE RENAME=(SCORE1=COL4))          /*LLU 10/8/04, TO PRESERVE KEY VARS FOR
LATER COMPARISON*/
         COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
         COL7(kEEP=ROW SIG RENAME=(SIG=COL7))
         ;
       SET BENCH FIG74 FIG73 FIG72 FIG71;
       BY BENEFIT;
       RETAIN BSCORE;
       IF REGION = 'Benchmark' THEN DO;
          BSCORE=SCORE;
          ROW = 18;
          SCORE1 = SCORE;
       END;
       ELSE IF TIMEPD = &PERIOD1 THEN DO;
          ROW = 18;
    *      SCORE=BSCORE+SCORE;
          IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
       END;
       ELSE IF TIMEPD = &PERIOD2 THEN DO;
          ROW = 19;
     *     SCORE=BSCORE+SCORE;
          IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
       END;
       ELSE IF TIMEPD = &PERIOD3 THEN DO;
          ROW = 20;
     *    SCORE=BSCORE+SCORE;
          IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
       END;
       ELSE IF TIMEPD = &PERIOD4 THEN DO;
          ROW = 21;
     *    SCORE=BSCORE+SCORE;
          SCORE1 = SCORE;
       END;

       IF (BENEFIT = 'How Well Doctors Communicate' AND REGION NE 'Benchmark') THEN OUTPUT COL4
   COL7;
       IF (BENEFIT = 'How Well Doctors Communicate' AND REGION = 'Benchmark') THEN OUTPUT COL5;

     RUN;

     PROC SORT DATA=COL4; BY ROW; RUN;
     PROC SORT DATA=COL5; BY ROW; RUN;
     PROC SORT DATA=COL7; BY ROW; RUN;
```

```
      /*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 6. LLU 10/7/04*/

      DATA FIG7AB;
         MERGE  COL4 COL7;
        BY ROW;
      RUN;


      DATA &POP.FIG7;
         MERGE  COL4(KEEP=ROW COL4) COL5 COL7;
         BY ROW;
      RUN;

      ********************************************************************************
      * FIGURE 8 & 9: Claims/Service Composites
      ********************************************************************************;
      TITLE2 'Figure 8 & 9: Claims/Service Composites';
      %GETDATA (MAJGRP=&MAJPOP,
                REGION=('Benchmark'),
                REGCAT=('Benchmark'),
                BENEFIT=('Customer Service','Claims Processing'),
                TIMEPD=&PERIOD4,
                OUTDATA=BENCH);
      %GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Customer Service','Claims Processing'),
                TIMEPD=&PERIOD4,
                OUTDATA=FIG9P4);
      %GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Customer Service','Claims Processing'),
                TIMEPD=&PERIOD3,
                OUTDATA=FIG9P3);
      %GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Customer Service','Claims Processing'),
                TIMEPD=&PERIOD2,
                OUTDATA=FIG9P2);
      %GETDATA (MAJGRP=&MAJPOP,
                REGION=("&AREA",'Benchmark'),
                REGCAT=("&AREA",'Benchmark'),
                BENEFIT=('Customer Service','Claims Processing'),
                TIMEPD=&PERIOD1,
                OUTDATA=FIG9P1);

      %COMPSCORE (FIGNUM=9);

      DATA COL2(DROP=SCORE RENAME=(SCORE1=COL2))
           COL3(KEEP=ROW SCORE1 RENAME=(SCORE1=COL3))
           COL4(DROP=SCORE RENAME=(SCORE1=COL4))          /*LLU 10/8/04, TO PRESERVE KEY VARS FOR
LATER COMPARISON*/
           COL5(KEEP=ROW SCORE1 RENAME=(SCORE1=COL5))
           COL6(KEEP=ROW SIG RENAME=(SIG=COL6))
           COL7(kEEP=ROW SIG RENAME=(SIG=COL7));
         SET BENCH FIG94 FIG93 FIG92 FIG91;
         BY BENEFIT;
         RETAIN BSCORE;
         IF REGION = 'Benchmark' THEN DO;
            BSCORE=SCORE;
            ROW = 18;
            SCORE1 = SCORE;
         END;
         ELSE IF TIMEPD = &PERIOD1 THEN DO;
            ROW = 18;
       *     SCORE=BSCORE+SCORE;
            IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
              ELSE SCORE1=SCORE;
         END;
         ELSE IF TIMEPD = &PERIOD2 THEN DO;
```

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```
          ROW = 19;
    *    SCORE=BSCORE+SCORE;
         IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
       END;
       ELSE IF TIMEPD = &PERIOD3 THEN DO;
          ROW = 20;
    *    SCORE=BSCORE+SCORE;
         IF (N_OBS<30 OR N_WGT<200) THEN SCORE1=.;
             ELSE SCORE1=SCORE;
       END;
       ELSE IF TIMEPD = &PERIOD4 THEN DO;
          ROW = 21;
        *  SCORE=BSCORE+SCORE;
          SCORE1 = SCORE;
       END;

       IF (BENEFIT = 'Customer Service' AND REGION NE 'Benchmark') THEN OUTPUT COL2 COL6;
       IF (BENEFIT = 'Customer Service' AND REGION = 'Benchmark') THEN OUTPUT COL3;
       IF (BENEFIT = 'Claims Processing' AND REGION NE 'Benchmark') THEN OUTPUT COL4 COL7;
       IF (BENEFIT = 'Claims Processing' AND REGION = 'Benchmark') THEN OUTPUT COL5;

    RUN;

    PROC SORT DATA=COL2; BY ROW; RUN;
    PROC SORT DATA=COL3; BY ROW; RUN;
    PROC SORT DATA=COL4; BY ROW; RUN;
    PROC SORT DATA=COL5; BY ROW; RUN;
    PROC SORT DATA=COL6; BY ROW; RUN;
    PROC SORT DATA=COL7; BY ROW; RUN;


    /*ADD CODE HERE TO PRESERVE NEW SCORES FOR FIGURE 7. LLU 10/7/04*/

    DATA FIG9A;
       MERGE COL2 COL6;
      BY ROW;
    RUN;

    DATA FIG9B;
       MERGE  COL4 COL7;
      BY ROW;
    RUN;

    DATA FIG9AB;
       SET FIG9A FIG9B;
      BY ROW;
    RUN;


    DATA &POP.FIG9;
       MERGE COL2 COL3 COL4(KEEP=ROW COL4) COL5 COL6 COL7;
       BY ROW;
    RUN;



    ******************************************************************************
    * TABLE 1: Preventive Care
    ******************************************************************************;
    PROC FREQ NOPRINT DATA=&CURRENT;
       WHERE MAJGRP IN (&MAJPOP,'Benchmark')
         AND REGION = "&AREA"
         AND REGCAT = "&AREA"
         AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
         AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                    'Percent Not Obese', 'Non-Smoking Rate','Counselled To Quit')
         AND TIMEPD = &PERIOD4;
       TABLES   MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/   OUT=TAB1_P4(DROP=COUNT
PERCENT);
       TABLES    MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*N_OBS/      OUT=TAB2_P4(DROP=COUNT
PERCENT);
     RUN;
     PROC FREQ NOPRINT DATA=&CURRENT;
```

```
        WHERE MAJGRP = &MAJPOP
          AND REGION = "&AREA"
          AND REGCAT = "&AREA"
          AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
          AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                          'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
          AND TIMEPD = &PERIOD3;
        TABLES   MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/   OUT=TAB1_P3(DROP=COUNT
PERCENT);
    RUN;
    PROC FREQ NOPRINT DATA=&CURRENT;
        WHERE MAJGRP = &MAJPOP
          AND REGION = "&AREA"
          AND REGCAT = "&AREA"
          AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
          AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                          'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
          AND TIMEPD = &PERIOD2;
        TABLES   MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/   OUT=TAB1_P2(DROP=COUNT
PERCENT);
    RUN;
    PROC FREQ NOPRINT DATA=&CURRENT;
        WHERE MAJGRP = &MAJPOP
          AND REGION = "&AREA"
          AND REGCAT = "&AREA"
          AND BENEFIT IN ('Preventive Care','Healthy Behaviors')
          AND BENTYPE IN ('Mammography', 'Pap Smear', 'Hypertension', 'Prenatal Care',
                          'Percent Not Obese','Non-Smoking Rate','Counselled To Quit')
          AND TIMEPD = &PERIOD1;
        TABLES   MAJGRP*REGION*BENEFIT*BENTYPE*TIMEPD*SEMEAN*SCORE*SIG/   OUT=TAB1_P1(DROP=COUNT
PERCENT);
    RUN;
    DATA TAB1P4;
        SET TAB1_P4;
        IF MAJGRP = 'Benchmark' THEN DO;
           ROW=42;
           IF BENTYPE='Mammography' THEN COL2=SCORE;
              ELSE IF BENTYPE='Pap Smear' THEN COL3=SCORE;
              ELSE IF BENTYPE='Hypertension' THEN COL4=SCORE;
              ELSE IF BENTYPE='Prenatal Care' THEN COL5=SCORE;
              ELSE IF BENTYPE='Percent Not Obese' THEN COL6=SCORE;
              ELSE IF BENTYPE = 'Non-Smoking Rate' THEN COL7=SCORE;
              ELSE IF BENTYPE ='Counselled To Quit' THEN COL8=SCORE;
        END;
           ELSE DO;
           ROW = 40;
           IF BENTYPE='Mammography' THEN DO;
              COL2=SCORE;
              COL9=SIG;
           END;
           ELSE IF BENTYPE='Pap Smear' THEN DO;
              COL3=SCORE;
              COL10=SIG;
           END;
           ELSE IF BENTYPE='Hypertension' THEN DO;
              COL4=SCORE;
              COL11=SIG;
           END;
           ELSE IF BENTYPE='Prenatal Care' THEN DO;
              COL5=SCORE;
              COL12=SIG;
           END;
           ELSE IF BENTYPE='Percent Not Obese' THEN DO;
              COL6=SCORE;
              COL13=SIG;
           END;
           ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
              COL7=SCORE;
              COL14=SIG;
           END;
           ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
              COL8=SCORE;
              COL15=SIG;
           END;
```

```
     END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB2P4;
   SET TAB2_P4;
   ROW=41;
   IF MAJGRP=&MAJPOP;
   IF BENTYPE='Mammography' THEN COL2=N_OBS;
      ELSE IF BENTYPE='Pap Smear' THEN COL3=N_OBS;
      ELSE IF BENTYPE='Hypertension' THEN COL4=N_OBS;
      ELSE IF BENTYPE='Prenatal Care' THEN COL5=N_OBS;
      ELSE IF BENTYPE='Percent Not Obese' THEN COL6=N_OBS;
      ELSE IF BENTYPE='Non-Smoking Rate' THEN COL7=N_OBS;
       ELSE IF BENTYPE='Counselled To Quit' THEN COL8=N_OBS;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1P3;
   SET TAB1_P3;
   ROW=39;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
      END;
      ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
      END;
      ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
         COL8=SCORE;
         COL15=SIG;
      END;
   PROC SORT;
   BY ROW;
RUN;
DATA TAB1P2;
   SET TAB1_P2;
   ROW=38;
      IF BENTYPE='Mammography' THEN DO;
         COL2=SCORE;
         COL9=SIG;
      END;
      ELSE IF BENTYPE='Pap Smear' THEN DO;
         COL3=SCORE;
         COL10=SIG;
      END;
      ELSE IF BENTYPE='Hypertension' THEN DO;
         COL4=SCORE;
         COL11=SIG;
      END;
      ELSE IF BENTYPE='Prenatal Care' THEN DO;
         COL5=SCORE;
         COL12=SIG;
      END;
      ELSE IF BENTYPE='Percent Not Obese' THEN DO;
         COL6=SCORE;
         COL13=SIG;
```

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```
          END;
    ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
         COL7=SCORE;
         COL14=SIG;
       END;
       ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
          COL8=SCORE;
          COL15=SIG;
       END;
    PROC SORT;
    BY ROW;

RUN;
DATA TAB1P1;
    SET TAB1_P1;
    ROW=37;
       IF BENTYPE='Mammography' THEN DO;
          COL2=SCORE;
          COL9=SIG;
       END;
       ELSE IF BENTYPE='Pap Smear' THEN DO;
          COL3=SCORE;
          COL10=SIG;
       END;
       ELSE IF BENTYPE='Hypertension' THEN DO;
          COL4=SCORE;
          COL11=SIG;
       END;
       ELSE IF BENTYPE='Prenatal Care' THEN DO;
          COL5=SCORE;
          COL12=SIG;
       END;
       ELSE IF BENTYPE='Percent Not Obese' THEN DO;
          COL6=SCORE;
          COL13=SIG;
       END;
     ELSE IF BENTYPE = 'Non-Smoking Rate'  THEN DO;
          COL7=SCORE;
          COL14=SIG;
       END;
       ELSE IF BENTYPE = 'Counselled To Quit' THEN DO;
          COL8=SCORE;
          COL15=SIG;
       END;
    PROC SORT;
    BY ROW;
RUN;

DATA TAB1;
    MERGE TAB1P1 TAB1P2 TAB1P3 TAB1P4 TAB2P4;
    BY ROW;
RUN;
DATA COL2(DROP=COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL3(DROP=COL2 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL4(DROP=COL2 COL3 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL5(DROP=COL2 COL3 COL4 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL6(DROP=COL2 COL3 COL4 COL5 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL7(DROP=COL2 COL3 COL4 COL5 COL6 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL8(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL9 COL10 COL11 COL12 COL13 COL14 COL15)
     COL9(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL10 COL11 COL12 COL13 COL14 COL15)
     COL10(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL11 COL12 COL13 COL14 COL15)
     COL11(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL12 COL13 COL14 COL15)
     COL12(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL13 COL14 COL15)
   COL13(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL14 COL15)
    COL14(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL15)
    COL15(DROP=COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14);

    SET TAB1;

    IF COL2 NE . THEN OUTPUT COL2;
    IF COL3 NE . THEN OUTPUT COL3;
    IF COL4 NE . THEN OUTPUT COL4;
    IF COL5 NE . THEN OUTPUT COL5;
    IF COL6 NE . THEN OUTPUT COL6;
```

```
        IF COL7 NE . THEN OUTPUT COL7;
        IF COL8 NE . THEN OUTPUT COL8;
        IF COL9 NE . THEN OUTPUT COL9;
        IF COL10 NE . THEN OUTPUT COL10;
        IF COL11 NE . THEN OUTPUT COL11;
        IF COL12 NE . THEN OUTPUT COL12;
        IF COL13 NE . THEN OUTPUT COL13;
        IF COL14 NE . THEN OUTPUT COL14;
        IF COL15 NE . THEN OUTPUT COL15;
RUN;

PROC SORT DATA=COL2; BY ROW; RUN;
PROC SORT DATA=COL3; BY ROW; RUN;
PROC SORT DATA=COL4; BY ROW; RUN;
PROC SORT DATA=COL5; BY ROW; RUN;
PROC SORT DATA=COL6; BY ROW; RUN;
PROC SORT DATA=COL7; BY ROW; RUN;
PROC SORT DATA=COL8; BY ROW; RUN;
PROC SORT DATA=COL9; BY ROW; RUN;
PROC SORT DATA=COL10; BY ROW; RUN;
PROC SORT DATA=COL11; BY ROW; RUN;
PROC SORT DATA=COL12; BY ROW; RUN;
PROC SORT DATA=COL13; BY ROW; RUN;
PROC SORT DATA=COL14; BY ROW; RUN;
PROC SORT DATA=COL15; BY ROW; RUN;

DATA &POP.TABLE1;
    MERGE COL2 COL3 COL4 COL5 COL6 COL7 COL8 COL9 COL10 COL11 COL12 COL13 COL14 COL15;
    BY ROW;
RUN;




*******************************************************************************
       COMPARE SCORES AND SIG B/T CONSUMER WATCH AND REPORT CARDS.
       SET 0.015 DIFFERENCE AS THRESHOLD.
       LUCY LU 10/07/2004
*******************************************************************************;

PROC SORT DATA=&POP.FIG1(DROP=SCORE);             *FROM CONSUMER WATCH. LLU 10/8/04;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=&POP.FIG2(DROP=SCORE);
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=&POP.FIG3(DROP=SCORE);
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG5AB OUT=&POP.FIG5;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG7AB OUT=&POP.FIG7;
BY BENEFIT TIMEPD REGION;

PROC SORT DATA=FIG9AB OUT=&POP.FIG9;
BY BENEFIT TIMEPD REGION;
RUN;




%MACRO COMPARE(I=, TITL=);

TITLE "DATA=&MAJPOP";

DATA CFIG&I;                    *FROM CONUS. LLU 10/8/04;

  SET CFIG&I.1
      CFIG&I.2
      CFIG&I.3
      CFIG&I.4
      ;
RUN;
```

```
PROC SORT DATA=&POP.FIG&I;
BY BENEFIT TIMEPD REGION;
RUN;

PROC SORT DATA=CFIG&I;
BY BENEFIT TIMEPD REGION;
RUN;

DATA COMBFIG&I;
   MERGE CFIG&I(IN=F1) &POP.FIG&I(IN=F2);
BY BENEFIT TIMEPD REGION;


IF F1 AND F2;

FIG = &I;

IF FIG <=4 THEN DO;
   SCORE2=&POP.SCORE;
   SIG2=&POP.SIG;
END;

ELSE IF FIG >4 THEN DO;
   IF COL2 >= 0 THEN SCORE2=COL2;
   ELSE IF COL4 >0 THEN SCORE2=COL4;

   IF COL6 >= .Z THEN SIG2=COL6;
   ELSE IF COL7>=.Z THEN SIG2=COL7;
END;


   SCOREDIF=SCORE2-SCORE;
   SIGDIF=SIG2-SIG;


IF ABS(SCOREDIF)>.015 OR SIGDIF>0 THEN FLAG=1;
ELSE FLAG=0;

KEEP BENEFIT TIMEPD REGION SCORE SIG SCORE2 SIG2 SCOREDIF SIGDIF FLAG;

LABEL
FLAG="DIFF IN SCORES >0.015 OR/AND DIFF IN SIG >0"
SCORE="SCORES FROM CONUS"
SCORE2="SCORES FROM CONSUMER WATCH"
SIG="SIG FROM CONUS"
SIG2="SIG FROM CONSUMER WATCH"
;

TITLE2 "***********************************************************";
TITLE3 "CONSUMER WATCH, &AREA, DATA=&MAJPOP ";

PROC PRINT L NOOBS;
TITLE4 "Compare &TITL.";
RUN;

%MEND COMPARE;

%COMPARE(I=1, TITL=Health Care Rating);
%COMPARE(I=2, TITL=Health Plan Rating);
%COMPARE(I=3, TITL=Personal Provider Rating);
%COMPARE(I=4, TITL=Specialist Rating);

%COMPARE(I=5, TITL=Access composites);

%COMPARE(I=7, TITL=Office composites);
%COMPARE(I=9, TITL=Claims/Service composites);


*prepare to merge data;

DATA &POP.FIG5(RENAME=(COL2=&POP.SCORE COL6=&POP.SIG))
     &POP.FIG6(RENAME=(COL4=&POP.SCORE COL7=&POP.SIG));
```

```
   SET &POP.FIG5;
   IF BENEFIT='Getting Needed Care' THEN OUTPUT &POP.FIG5;
   ELSE IF BENEFIT = 'Getting Care Quickly' THEN OUTPUT &POP.FIG6;
RUN;

DATA &POP.FIG7(RENAME=(COL4=&POP.SCORE COL7=&POP.SIG));
   SET &POP.FIG7;
   IF BENEFIT = 'How Well Doctors Communicate' THEN OUTPUT;
RUN;

DATA &POP.FIG8(RENAME=(COL2=&POP.SCORE COL6=&POP.SIG))
     &POP.FIG9(RENAME=(COL4=&POP.SCORE COL7=&POP.SIG));
   SET &POP.FIG9;
   IF BENEFIT='Customer Service' THEN OUTPUT &POP.FIG8;
   ELSE IF BENEFIT ='Claims Processing' THEN OUTPUT &POP.FIG9;
RUN;

%DO I= 1 %TO 9;
PROC SORT DATA=&POP.FIG&I;
BY ROW;
RUN;
%END;

%MEND RUNPOP;

%RUNPOP(MAJPOP='Enrollees with Military PCM', POP=DC,DAT=);
%RUNPOP(MAJPOP='Enrollees with Civilian PCM', POP=PC,DAT=PURCHASED);

%DO I=1 %TO 9;
DATA FIG&I;
   MERGE DCFIG&I PCFIG&I;
   BY ROW;
RUN;
%END;


DATA DCTABLE1;
  SET DCTABLE1;

  ROW=ROW-.5;       *CHANGE DIRECT CARES ROW NUMBER TO PREPARE NEXT STEP;
RUN;

DATA TABLE1;
   SET DCTABLE1 PCTABLE1;
   BY ROW;
RUN;



*****************************************************************************
* DDE LINK:  FIGURE 1-4: Health Care Rating
*****************************************************************************;

%MACRO RUNXLS1;

%DO I = 1 %TO 4;
FILENAME TBL DDE "EXCEL|RATINGS!R17C%EVAL(&I*6-4):R21C%EVAL(&I*6)";

DATA _NULL_;
   SET FIG&I;
   FILE TBL NOTAB LRECL=200;
   X=SLEEP(.1);
   PUT DCSCORE '09'X PCSCORE '09'X DCSIG '09'X PCSIG;
RUN;
%END;
%MEND;
%RUNXLS1;

*****************************************************************************
* DDE LINK:  FIGURE 5-9: Composites
*****************************************************************************;

%MACRO RUNXLS2;
%DO I = 5 %TO 9;
```

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```
       FILENAME TBL DDE "EXCEL|Composites!R18C%EVAL((&I.-4)*5-3):R21C%EVAL((&I.-4)*5-1)";

       DATA _NULL_;
          SET FIG&I;
          FILE TBL NOTAB LRECL=200;
          X=SLEEP(.1);
          PUT DCSCORE '09'X PCSCORE '09'X BSCORE;
       RUN;

       FILENAME TBL DDE "EXCEL|Composites!R23C%EVAL((&I.-4)*5-3):R26C%EVAL((&I.-4)*5-1)";

       DATA _NULL_;
          SET FIG&I;
          FILE TBL NOTAB LRECL=200;
          X=SLEEP(.1);
          PUT DCSIG '09'X PCSIG;
       RUN;

       %END;
       %MEND;
       %RUNXLS2;

       ********************************************************************************
       * DDE LINK: TABLE 1: Preventive Care
       ********************************************************************************;
       FILENAME TBL DDE "EXCEL|TABLES!R3C11:R14C25";

       DATA _NULL_;
          SET TABLE1;
          FILE TBL NOTAB LRECL=200;
          IF ROW <=41 THEN DO;
          PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X COL8 '09'X COL9
'09'X COL10
             '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
          END;
          ELSE IF ROW=42 THEN DO;     *no benchmark for counselling;
          PUT COL2 '09'X COL3 '09'X COL4 '09'X COL5 '09'X COL6 '09'X COL7 '09'X '-' '09'X COL9
'09'X COL10
             '09'X COL11 '09'X COL12 '09'X COL13 '09'X COL14 '09'X COL15;
          END;
       RUN;

       /*Run Excel macro signif,  May 9 2006, LLU*/

       options noxsync;
       *-- Specify XL filename ;

       *%let excelf = &FOLDER..XLS ;

       *-- Specify XL macro name ;
       %let macron = sig2.signif2 ;


       FILENAME CMDS DDE "EXCEL|SYSTEM";


       DATA _NULL_;
         FILE CMDS;
         DDECommand = '[Run("' || "&macron" || '",0)]' ;
         put DDEcommand ;

       RUN;


       DATA _NULL_;
          FILE CMDS;
          PUT '[SAVE]';
          PUT '[QUIT]';
       RUN;

       %MEND RUNCW;
```

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APPENDIX K

SAMPLE SUDAAN CODE FOR VARIANCE ESTIMATION

```
******************************************************************
* program:   SUDTEST.SAS
* purpose:   to demonstrate SAS callable SUDAAN procedures to get
*            SEs for survey estimates
* input: j:\dod\2009\data\Afinal\hcs09A_1.sd2
******************************************************************
*;
options ps=79 ls=132;
libname in 'j:\dod\2009\data\Afinal\hcs09A_1.sd2';
libname library  'j:\dod\2009\data\Afinal\fmtlib';


***SORT FILE BY STRATUM****;
data hcs2009;
set in.hcs09A_1;
***make xregion = 7 to xregion = 8 for tables  ***;
if xregion = 7 then xregion = 8;
run;

PROC SORT DATA=HCS2009(keep=xtnexreg H09019 H09027 H09048 xenrllmt
                                    cfwt stratum);
BY stratum;
RUN;


****************************************************************
if you want to estimate means
****************************************************************;
title 'Output file from SUDAAN for estimating means';
title2 'Overall ratings among all beneficiaries in the past 12 months';
title3 'who have a personal doctor (H09019=1) for each region (XTNEXREG)';

PROC DESCRIPT DATA=HCS2009 DESIGN=STRWR NOPRINT;
 WEIGHT   CFWT;         ******  sampling/FINAL SURVEY WEIGHT     ********;
 NEST STRATUM / missunit;
 VAR  H09027;                 ******  VARIABLES TO BE ESTIMATED**;
 SUBPOPN H09019=1;                 ******specify domains to be reported;
 TABLES XTNEXREG;
 SUBGROUP XTNEXREG;
 LEVELS 4;
 OUTPUT MEAN SEMEAN deffmean/ TABLECELL=DEFAULT FILENAME=mnsDAT;
 ***SEMEAN=standard error and deffmean=design effect**;
RUN;

proc print data=mnsdat;
run;

****************************************************************
if you want to estimate percentage
****************************************************************;
title 'Output file from SUDAAN for estimating percentages';
title2 'Those who last had a blood pressure reading less than 12 months;
title3 'ago, 1 to 2 years ago, and more than 2 years ago (H09048)';
title4 'by TRICARE enrollment (XENRLLMT) in region 3';
TITLE5 'PROC CROSSTAB';
PROC CROSSTAB DATA=HCS2009 DESIGN=STRWR NOPRINT;
 WEIGHT   CFWT;
 NEST STRATUM / missunit;
 SUBPOPN XTNEXREG=3;
 SUBGROUP H09048 XENRLLMT;
 LEVELS 3 5;
 TABLES H09048*XENRLLMT;              /*  DEP * INDEP */
 OUTPUT NSUM WSUM SEWGT COLPER SECOL
   / TABLECELL=DEFAULT FILENAME=OUTDAT;
RUN;

proc print data=outdat;
run;
```

APPENDIX L

THREE SETS OF THE FY2009 ANNUAL WEIGHT & REPLICATE WEIGHT CONSTRUCTION

Three Sets of the FY2009 Annual Weight & Replicate Weight Construction

Set 1: For Analysis of Common Items across CAPHS 3.0 and 4.0

	Annual Final Weight	rep1-60	rep61-120	rep121-180	rep181-240
Q1	1/4 of quarterly final weight for COMBINED	1/4 of Q1 quarterly REPLICATE weight for COMBINED	1/4 of the quarterly FINAL weight for COMBINED		
Q2			1/4 of Q2 quarterly REPLICATE weight for COMBINED		
Q3				1/4 of Q3 quarterly REPLICATE weight for COMBINED	
Q4		1/4 of the quarterly FINAL weight for COMBINED			1/4 of Q4 quarterly REPLICATE weight for COMBINED

Set 2: For Analysis of unique items in CAPHS 3.0

	Annual Final Weight	rep1-60	rep61-120
Q1	1/2 of quarterly final weight for V3	1/2 of Q1 quarterly REPLICATE weight for V3	1/2 of the quarterly FINAL weight for V3
Q2		1/2 of the quarterly FINAL weight for V3	1/2 of Q2 quarterly REPLICATE weight for V3

Set 3: For Analysis of Unique Items in CAPHS 4.0

	Annual Final Weight	rep1-60	rep61-120	rep121-180	rep181-240
Q1	1/4 of quarterly final weight for V4	1/4 of Q1 quarterly REPLICATE weight for V4	1/4 of the quarterly FINAL weight for V4		
Q2		1/4 of the quarterly FINAL weight for V4	1/4 of Q2 quarterly REPLICATE weight for V4		
Q3	1/4 of quarterly final weight for COMBINED			1/4 of Q3 quarterly REPLICATE weight	1/4 of quarterly FINAL weight
Q4		1/4 of quarterly FINAL weight			1/4 of Q4 quarterly REPLICATE weight

APPENDIX M

CHANGES TO COMPOSITES

During FY 2009, the HCSDB core changed. Instead of CAHPS Version 3.0, core questions were taken from CAHPS Version 4.0. To facilitate the change, two versions of the questionnaire were fielded in the first two quarters. Results from both questionnaires appear in the Consumer Watch and Beneficiary Reports. The following table compares the questions contained in five currently reported composites as they appear in the CAHPS Version 4.0 compared to CAHPS Version 3.0. Each question is shown next to a question concerning a related topic from the previous questionnaire. When we compare past results to current results for the Version 3.0 results we are comparing them to the adjacent questions. The remaining Version 3.0 composite, "Courteous and Helpful Office Staff," has been eliminated.

Getting Needed Care

Version 3.0	Version 4.0
Since you joined your health plan, how much of a problem, if any, was it to get a personal doctor or nurse you are happy with? A big problem, a small problem, no problem.	
In the last 12 months, how much of a problem, if any, was it to see a specialist that you needed to see? A big problem, a small problem, no problem.	In the last 12 months, how often was it easy to get appointments with a specialist? Never, sometimes, usually, always
In the last 12 months, how much of a problem, if any, was it to get the care, tests or treatment you or a doctor believed necessary? A big problem, a small problem, no problem.	In the last 12 months, how often was it easy to get the care, tests or treatment you thought you needed through your health plan? Never, sometimes, usually, always.
In the last 12 months, how much of a problem, if any, were delays in health care while you waited for approval from your health plan? A big problem, a small problem, no problem.	

Getting Care Quickly

Version 3.0	Version 4.0
In the last 12 months, when you called during regular office hours, how often did you <u>get</u> the help or advice you <u>needed</u>? Never, sometimes, usually, always.	
In the last 12 months, when you <u>needed care right away</u> for an illness, injury, or condition, how often did you get care as soon as you wanted? Never, sometimes, usually, always.	In the last 12 months, when you <u>needed care right away</u>, how often did you get care as soon as you thought you needed? Never, sometimes, usually, always.
In the last 12 months, not counting times you needed health care right away, how often did you get an appointment for health care as soon as you wanted? Never, sometimes, usually, always.	In the last 12 months, <u>not</u> counting times you needed care right away, how often did you get an appointment for your health care at a doctor's office or clinic as soon as you thought you needed? Never, sometimes, usually, always.
In the last 12 months, how often were you taken to the exam room <u>within 15 minutes</u> of your appointment? Never, sometimes, usually, always.	

Doctors' Communication

Version 3.0	Version 4.0
In the last 12 months, how often did doctors or other health providers listen carefully to you?	In the last 12 months, how often did your personal doctor listen carefully to you?
Never, sometimes, usually, always.	Never, sometimes, usually, always.
In the last 12 months, how often did doctors or other health providers explain things in a way you could understand?	In the last 12 months, how often did your personal doctor explain things in a way that was easy to understand?
Never, sometimes, usually, always.	Never, sometimes, usually, always.
In the last 12 months, how often did doctors or other health providers show respect for what you had to say?	In the last 12 months, how often did your personal doctor show respect for what you had to say?
Never, sometimes, usually, always.	Never, sometimes, usually, always.
In the last 12 months, how often did doctors or other health providers spend enough time with you?	In the last 12 months, how often did your personal doctor spend enough time with you?
Never, sometimes, usually, always.	Never, sometimes, usually, always.

Customer Service

In the last 12 months, did you look for any information about how your health plan works in written material or on the Internet? Yes, No	
In the last 12 months, how much of a problem, if any, was it to find or understand this information? A big problem, a small problem, no problem.	
In the last 12 months, how much of a problem, if any, was it to get the help you needed when you called your health plan's customer service? A big problem, a small problem, no problem.	In the last 12 months, how often did your health plan's customer service give you the information or help you needed? Never, sometimes, usually, always.
In the last 12 months, how much of a problem, if any, did you have with paperwork for your health plan? A big problem, a small problem, no problem.	
	In the last 12 months, how often did your health plan's customer service staff treat you with courtesy and respect? Never, sometimes, usually, always.

Claims Handling

Version 3.0	Version 4.0
In the last 12 months, how often did your health plan handle your claims <u>in a reasonable time</u>?	In the last 12 months, how often did your health plan handle your claims quickly?
Never, sometimes, usually, always.	Never, sometimes, usually, always.
In the last 12 months, how often did your health plan handle your claims <u>correctly</u>?	In the last 12 months, how often did your health plan handle your claims correctly?
Never, sometimes, usually, always.	Never, sometimes, usually, always.

Smoking Rates

Change in smoking question. Under Version 3.0, we defined smokers as those who currently smoke or who have quit smoking in the past year. The current definition includes only those who currently smoke.

Smoking

Version 3.0	Version 4.0
Have you ever smoked at least 100 cigarettes in your entire life?	Have you ever smoked at least 100 cigarettes in your entire life?
Never, sometimes, usually, always	Never, sometimes, usually, always
Do you smoke every day, some days or not at all?	Do you smoke every day, some days or not at all?
Every day, some days, not at all	Every day, some days, not at all
How long has it been since you quit smoking?	
Less than 12 months, 12 months or more	

To prepare for the transition, we analyzed data from the quarters during which both the Version 3.0 and Version 4.0 questionnaires were fielded. We found, controlling for beneficiary characteristics, that the difference between the survey response and benchmark results from the National CAHPS Benchmarking Database did not change significantly between Version 3.0 and Version 4.0. As a result, our transition method was to present Version 3.0 results in comparison to Version 3.0 benchmarks and Version 4.0 results in comparison to Version 4.0 benchmarks. Where trends are presented, the corresponding Version 3.0 and Version 4.0 questions in the table above are presented together. For quarters during which both Version 3.0 and Version 4.0 were fielded, we average together results from the two questionnaires and the two benchmarks, weighted equally. For annual results, Version 3.0 is given a weight of 1 and Version 4.0 is given a weight of 3. One exception is the "Customer Service" composite. We removed the Version 3.0 results from the reports and include only the Version 4.0 results. Another exception is the non-smoking rate and smoking cessation counseling rate. These rates are calculated from the old data using the new algorithm and compared to the Healthy People 2010 benchmark (for the non-smoking rate) and benchmark calculated from the Version 4.0 questionnaire (for the counseling rate).

In order to make results more comparable over time, we calculated an offset. The offset is the difference between the Version 3.0 benchmark and Version 4.0 benchmark for the same patient population. That difference is added to the Version 3.0 benchmark and score, multiplied by a factor equal to the proportion of Version 3.0 questionnaires fielded in the relevant time period. The offset does not affect significance testing or testing for trend.