



PERSONNEL AND
READINESS

UNDER SECRETARY OF DEFENSE

4000 DEFENSE PENTAGON
WASHINGTON, DC 20301-4000

DEC 2 2011

The Honorable Joseph R. Biden, Jr.
President of the Senate
United States Senate
Washington, DC 20510

Dear Mr. President:

I am pleased to provide Congress with the enclosed report focused on key aspects of clinical quality management in the Military Health System (MHS). Section 723 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2000, as amended by section 742 of NDAA for FY 2006, requests an annual report on the quality of health care furnished under the health care programs of the Department of Defense. Additionally, the report serves as an avenue for communication with Congress on the status of quality care within MHS as recommended by the Health Care Quality Initiatives Review Panel. The report contains data and information on quality activities from FY 2010. This issue falls under my purview and I apologize for the delay in submitting this report.

Thank you for your interest in the health and well-being of our Service members, veterans, and their families.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jo Ann Rooney".

Jo Ann Rooney
Acting

Enclosure:
As stated



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DEC 2 2011

The Honorable John A. Boehner
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Speaker:

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The Honorable Carl Levin
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510

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The Honorable John McCain
Ranking Member



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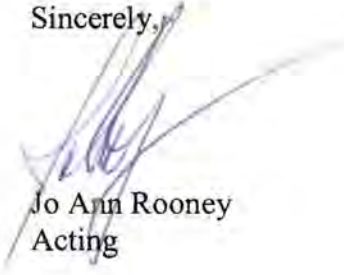
The Honorable Jim Webb
Chairman
Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510

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The Honorable Lindsey Graham
Ranking Member



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DEC 2 2011

The Honorable Howard P. "Buck" McKeon
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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The Honorable Adam Smith
Ranking Member



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Subcommittee on Military Personnel
Committee on Armed Services
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The Honorable Susan A. Davis
Ranking Member



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The Honorable Daniel K. Inouye
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510

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The Honorable Thad Cochran
Vice Chairman



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Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

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Jo Ann Rooney
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cc:
The Honorable Norman D. Dicks
Ranking Member



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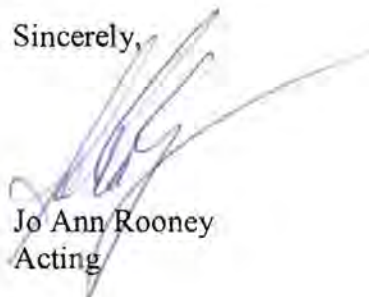
The Honorable C.W. Bill Young
Chairman
Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

I am pleased to provide Congress with the enclosed report focused on key aspects of clinical quality management in the Military Health System (MHS). Section 723 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2000, as amended by section 742 of NDAA for FY 2006, requests an annual report on the quality of health care furnished under the health care programs of the Department of Defense. Additionally, the report serves as an avenue for communication with Congress on the status of quality care within MHS as recommended by the Health Care Quality Initiatives Review Panel. The report contains data and information on quality activities from FY 2010. This issue falls under my purview and I apologize for the delay in submitting this report.

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The Honorable Norman D. Dicks
Ranking Member

DEPARTMENT OF DEFENSE HEALTH CARE QUALITY REPORT TO CONGRESS



**ANYTIME,
ANYWHERE...**



The Fiscal Year (FY) 2011 Department of Defense Health Care Quality Report to Congress is provided by the TRICARE Management Activity, Office of the Chief Medical Officer (OCMO), Clinical Quality Division, in the Office of the Assistant Secretary of Defense (Health Affairs) (OASD/HA). This report reflects TMA FY 2010 data and activity pertaining to quality.

PHOTOS:

defenseimagery.mil, istock.com, gettyone.com

TRICARE -

What happens in any given week!

23,300 Inpatient Admissions

5,100 Direct Care | 18,200 Purchased Care

1.8 Million Outpatient Visits

809,000 Direct Care | 1.001 Million Purchased Care

2,400 Births

1,000 Direct Care | 1,400 Purchased Care

12.6 Million Electronic Health Record Messages

2.6 Million Prescriptions

924,000 Direct Care | 1.4 Million Retail Pharmacy | 228,000 Home Delivery

231,000 Behavioral Health Outpatient Services

52,000 Direct Care | 179,200 Purchased Care

3.5 Million Claims Processed



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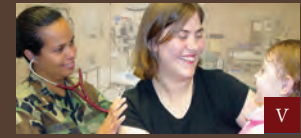
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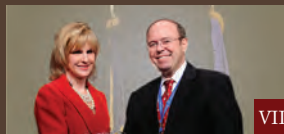
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REQUIREMENTS FOR THE REPORT

The requirement for the *Department of Defense Health Care Quality Report to Congress* is outlined in Public Law and Congressional guidance. This report was designed to meet the requirements found in the following references.

National Defense Authorization Act Requirement

Section 723(e) of the National Defense Authorization Act for Fiscal Year 2000, Public Law 106-65, mandated an annual report on the quality of health care furnished under the health care program and included the measures to be reported upon. These measures were modified by Section 742 of the National Defense Authorization Act for Fiscal Year 2006, Public Law 109-163.

The Assistant Secretary of Defense for Health Affairs (HA) shall submit to Congress on an annual basis a report on the quality of health care furnished under the health care programs of the Department of Defense (DoD). The report shall cover the most recent fiscal year ending before the date the report is submitted and shall contain a discussion of the quality of the health care measured on the basis of each statistical and customer satisfaction factor that the Assistant Secretary determines appropriate, including, at a minimum, a discussion of the following:

- Measures of the quality of health care furnished, including timeliness and accessibility of care;
- Population health;
- Patient safety;
- Patient satisfaction;
- The extent of use of evidence-based health care practices; and
- The effectiveness of Biosurveillance in detecting an emerging epidemic.

The Healthcare Quality Initiative Review Panel Recommendation

The Healthcare Quality Initiative Review Panel report from July 2001 provided recommendations considered essential to ensure continued improvement in the DoD health system. The recommendations included the reestablishment of the Quality Management Report as a comprehensive information product for communicating with and educating leadership within Congress, the Office of the Assistant Secretary of Defense for Health Affairs, TRICARE Management Activity (TMA), the Services, and the military treatment facilities (MTFs) on the status of quality in the Military Health System (MHS).

• • •

A MESSAGE FROM
JONATHAN
WOODSON, M.D.,
ASSISTANT
SECRETARY OF
DEFENSE FOR
HEALTH AFFAIRS

It is with great pride that I submit to Congress the 2011 Department of Defense Report on Health Care Quality.

This report highlights quality initiatives, demonstrating our commitment to continuously assess and improve the care provided to our beneficiaries with a focus on MHS activity, performance, and achievements occurring between 1 October 2009 and 30 September 2010. As required by law, the report covers six areas: measures of health care quality, population health, patient safety, patient satisfaction, use of evidence-based health care practice, and effectiveness of biosurveillance for emerging epidemics.

The MHS's nearly 9.7 million beneficiaries deserve quality health services that are convenient and tailored to meet their individual health and medical needs. By focusing on providing evidence-based care in an integrated and seamless way across our health care system, we strive to meet our goal of eliminating disease and achieving optimal health.

We look at the facts, and at how we performed against the goals we have set for our system. Presented in this report are the results of many of the established and evolving measures senior MHS leadership follows to assess the performance of the MHS, as it serves beneficiaries worldwide in meeting operational and humanitarian mission requirements consistent with the strategic vision, strategy, and goals of the MHS. In this report, where programs are mature, and data permit, results are trended over the most recent three fiscal years; and where appropriate and feasible, MHS data are compared with corresponding comparable civilian benchmarks, such as with our beneficiary surveys of access to and satisfaction with the experience of care.

It is an honor and privilege to serve with the world's finest team of men and women who are dedicated to caring for the Nation's fighting forces and their families. Further, we appreciate the support Congress has provided to help us provide the very best health care, in particular for the wounded, ill and injured. While there is always much more that must be done, I believe we continue to make progress toward our goals, as we have a shared strategy, with a strong foundation of achievement, and with an abiding faith that we can still do better. This report allows us to recount the progress of many of the strategic initiatives the MHS has pursued to improve our performance. These initiatives support the Quadruple Aim strategy begun in the fall of 2009 which focuses on the primacy of Readiness, and continuous efforts to improve our population's health and our beneficiaries' experience of care, while managing per capita costs.

— Jonathan Woodson, M.D.

...



CLINICAL QUALITY MANAGEMENT

The Military Health System (MHS) is a world-wide health care network within the Department of Defense (DoD), providing leading-edge health care to all U.S. military personnel worldwide. The MHS has 59 inpatient hospitals and medical centers, 364 health clinics and nearly a \$50 billion budget, delivering high quality health care to a beneficiary population that nears 9.7 million service members, veterans, and family members through the TRICARE network.

The system consists of: the Office of the Assistant Secretary of Defense for Health Affairs; the medical departments of the Army, Navy, and Air Force; the Joint Chiefs of Staff and Combatant Command surgeons; and TRICARE Management Activity (TMA). TRICARE is a family of health plans for the MHS, which maintains medical combat readiness while providing the best health services for all eligible beneficiaries.

TRICARE has two complementary arms: the direct care (DC) system brings together the global health resources of the Services and provides health benefits to patients in military treatment facilities (MTFs). The purchased care (PC) system supplements this DC capability with network and non-network civilian health professionals, hospitals, pharmacies, and suppliers to provide better access and care to military beneficiaries. The PC Managed Care Support Contractors (MCSCs) provide care in three geographic regions in the U.S.: the North, administered by Health Net Federal Services; the South, administered by Humana Military Healthcare Services; and the West, administered by TriWest Healthcare Alliance. International SOS was awarded the contract for providing PC for all overseas locations to supplement available MTF care.

There are also six Designated Provider (DP) programs that offer a TRICARE Prime benefit to non-Active Duty beneficiaries who choose to enroll. This program is unique in offering its Prime benefit to eligible beneficiaries who are aged 65 years and older. DP programs are available at Pacific Medical US Family Health Plan (USFHP) in WA; CHRISTUS Health in TX; Brighton Marine in MA; Martin's Point in ME; Johns Hopkins USFHP in MD; and St. Vincent's USFHP in NY.

The MHS commitment to provide high-quality health care and to improve performance is guided by:

- **Guiding Principles:** The MHS adheres to principles for quality adopted from the Institute of Medicine (IOM); these include safety, effectiveness, timeliness, patient centered, efficient, and equitable. These principles are essential to accomplishing the MHS mission and vision.
- **Transparency:** Health care transparency is a broad-scale initiative enabling consumers to compare the quality and price of health care services, so they can make informed choices among providers and health care facilities. Advances in transparency in FY 2010 included improvements to data access on the MHS CQM Web site, the establishment of the TRICARE Transparency Web site that provides information on pricing, information technology, and quality across the system, and use of the Internet and social media to reach out to beneficiaries to keep them informed.
- **Quadruple Aim:** The MHS modeled the Quadruple Aim after the Institute for Healthcare Improvement's (IHI) Triple Aim, which encompasses Population Health, Experience of Care, and Responsibly Managing Total Health Care Costs, with the addition of one key element - readiness, which reflects one of the core tenets of the MHS' mission. This model centers on creating value by focusing on quality, eliminating waste and reducing inconsistencies in the provision of care, and considers the total cost of care over time, not just the cost of individual health care episodes.
- **Quality Architecture:** Management of quality in the MHS is the result of continuous, multidirectional communication across various components and specialties within the system. Structures and processes have been implemented to support clinical quality management and facilitate communication to enhance the care provided throughout the system. Communication to support quality management in the MHS is accomplished through the inclusion of quality management in key leadership committees and the development of a select number of quality-focused sub-committees. The lead committees include the

Senior Military Medicine Advisory Council (SMMAC), the Clinical Proponency Steering Committee (CPSC), and the MHS Clinical Quality Forum (CQF). The MHS also shares the results of measuring quality of health care services with providers and beneficiaries, thus supporting transparency and enabling beneficiaries to make informed choices and decisions about their care.

- **Systems and Processes Supporting Quality Outcomes:** Systems and processes supporting quality outcomes include the MHS Population Health Portal (MHSPHP), AHLTA (the military's outpatient electronic health record), ESSENTRIS™ (the MHS current inpatient solution), quality assurance, certifications and accreditations, medical management education and training, and the external review of DoD's Medical Quality Improvement Program.

EVIDENCE-BASED PRACTICE & CLINICAL QUALITY MEASUREMENT

DoD is committed to using evidence-based medicine (EBM) to ensure DoD beneficiaries receive the best possible care. Strategies identified to accomplish this mission include the development and communication of evidence-based clinical practice guidelines (CPGs). Through a collaborative relationship, DoD and VHA continues to work together to develop and maintain CPGs. Twenty-three CPGs served as the underpinning for interagency condition management initiatives in 2010.

Quality measures are used for the evaluation and comparison of care provided in medical facilities, and are used for focused improvement of the care delivered. The MHS participates in the development, review, and endorsement of quality measures established by the National Quality Forum (NQF) and the Agency for Healthcare Research and Quality (AHRQ). DoD utilizes these nationally-recognized measures, as well as accreditation by external agencies with industry-wide accepted standards, to assess the care provided to beneficiaries. In addition, the MHS supports special studies that are focused on finding opportunities for improving the quality of health care across the MHS.

Among the metrics used by DoD are process-of-care measures that are included on the Hospital Compare web site. In 2010, Hospital Compare measures collected by the MHS included Acute Myocardial Infarction, Heart Failure, Pneumonia, Surgical Care Improvement Project, Children's Asthma Care, and Pregnancy. Performance for these measures, in both the DC and PC networks, were either comparable or slightly higher than the national rates in 2010. In 2010, when the MHS PC and DC were compared to the National Hospital Compare rates over time, all the measures were trending upward, demonstrating improvement in meeting or exceeding national standards. In 2010, the MHS continued to place the Hospital Compare data

submitted to CMS for civilian facilities on its own Web site. This MHS site now contains data on DC MTFs as well as PC facilities, both network and non-network, enabling beneficiaries to compare the quality of care provided for these services at all facilities in their local area.

DoD also captures data on the Joint Commission's pregnancy measures to evaluate performance in MHS's largest service line. The MHS contracts with National Perinatal Information Center (NPIC) to provide data from both DC and PC pregnancy data bases. New from Joint Commission in 2010 was the addition of five Perinatal Core measures. These measures focus on monitoring outcomes related to health and wellness in mothers and infants cared for in the MHS. Pregnancy outcomes in the MHS continue to lead the private sector.

DoD also evaluates how well it is doing for outpatient and preventive care utilizing measures from the National Committee on Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®). Data is available for DC and PC regions and performance initiatives continued to improve compliance with these measures in 2010. To ensure accuracy of the HEDIS® data in the MHSPHP, the requirement for a certified HEDIS® auditor has been included in the new TRICARE quality monitoring contract (TQMC) which is the external civilian quality review contract.

The AHRQ Patient Safety Indicators (PSI) metrics provide information on potential in-hospital complications and adverse events following surgeries, procedures, and childbirth. The MHS, like many health system leaders in the private sector, uses the PSIs as a tool to help identify potential adverse events occurring during hospitalization. Performance on PSIs is tracked and discussed across the MHS.

Under the guidance of the MHS Clinical Quality Management (CQM) Scientific Advisory Panel (SAP), several studies were conducted in 2010 with a quality focus. These studies were: Sleep Apnea (demographics, diagnosis, treatment and follow-up), Evaluating Improvement in Patients Seen in MTF Pain Management Clinics, and DoD Intensive Care Units (Influence of Organizational Structure on Patient Outcomes). Two additional studies (Mental Health and Medications within the DoD) were begun and will be completed in FY 2011. These studies evaluated specific issues across the DC system and included private sector comparable data, when available. The aim of these studies was to provide DoD leadership and health care providers with independent,

impartial analyses of DC clinical data so that they may evaluate policy and clinical practice within the MHS. An MHS CQM online education program (offering free continuing education credit) translates these research findings and recommendations into solutions that may be applied to clinical practice.

The PC MCSCs and DPs also conducted a variety of quality improvement initiatives, projects and studies in 2010. In some cases, these initiatives were conducted over multiple years and measured the effectiveness of interventions. Some of these improvement initiatives were initially indicated through review of regional performance on TJC ORYX® core measure sets or their HEDIS® compliance.

MHS POPULATION HEALTH & MEDICAL MANAGEMENT

Population Health (PH) addresses a broad range of factors that affect health at the population level with the goal to improve the health of specific populations. This model connects medical interventions to individuals, MTFs, worksites and community-based wellness efforts. This model also connects prevention activities focused on improving overall health and reducing morbidity and premature mortality in the MHS population.

In 2010, the MHS Population Health Healthy Choices for Life initiatives continued to address tobacco cessation, obesity and alcohol abuse prevention. The Tobacco Cessation Marketing and Education campaign is funded by Defense Health Plan POM FY 2010-FY 2015 and is dependent on local program managers to convey the smoking cessation message to their targeted audience. The campaign's award winning Web site (www.ucequit2.org) had almost 400,000 visitors in FY2010. The campaign also includes access to a toll-free 24/7 quit line, no-cost pharmaceuticals via the mail order pharmacy (including nicotine replacement products), cessation counseling, printed and web-based cessation materials, and an annual report to Congress on the details of the benefit.

The HEALTH weight-management demonstration project addressing obesity was launched in July 2006 and concluded in September 2008. This demonstration project showed weight loss could be facilitated through Web-based support. As a result, TMA

is addressing the issue of overweight and obesity in military personnel and TRICARE beneficiaries with several initiatives. The Weight Management Working Group is evaluating the programs that are in place within each Service and TRICARE. In August 2010, the DoD was directed to form a department wide working group on childhood obesity to address specific issues. Additionally, TMA's Get Fit Web site will link to other key government websites.

The TMA Alcohol Counter-Marketing & Education campaign launched "THAT GUY" in December 2006, targeting military personnel between the ages of 18 to 24. The campaign is active in 550 installations and www.thatguy.com has been viewed by more than a million visitors since inception in December 2006. There has been a steady increase in campaign awareness within the target audience according to the annual Status of Forces surveys. Findings also show a statistically significant, lower, self-reported incidence of binge drinking at installations where the "THAT GUY" campaign has been implemented.

Managed care support contractors also engaged in a number of health promotion activities to improve population health. Examples include preventive screening reminders, vision screening, blood pressure screening, weight management and smoking cessation.

The MHS developed a Medical Management (MM) model to promote the integration of utilization, case and disease management and

augment the coordination of patient care to create an efficient and effective quality health care system. The MM guide provides how-to guidance establishing MM programs, which includes information on outcomes management and resources that can be customized at the local level.

Utilization Management (UM) is a system-wide, interdisciplinary approach used by the MHS to balance quality, risk and cost concerns in providing patient care. The purpose of UM is to identify, monitor, evaluate, and resolve issues that may result in inefficient delivery of care, or that may have an impact on resources and services. At the MTF level, UM is accomplished through proactive, ongoing data analysis, utilization, case, and referral management.

Case Management (CM) is another essential clinical process that supports the MHS's ability to provide continuity of care through the seamless coordination of services to meet beneficiaries' health care needs. The Office of the Chief Medical Officer (OCMO) developed interim policy for the implementation of clinical CM in the MHS. CM web-based and virtual instructor-led training via the MHS Learn platform are being implemented. TMA continues working toward acquisition of an enterprise-wide automated CM tool to assist with documentation and tracking of a patient's individualized care plan.

The goals of Disease Management (DM) are to improve health status (clinical outcomes), increase patient and provider satisfaction,

and ensure the appropriate utilization of resources. The MHS DM program addresses asthma, chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and diabetes. Further expansion of the DM program is targeted to include depression and anxiety disorders, along with cancer screening. The DoD is pursuing necessary regulatory changes to implement DM as a full benefit, in accordance with the John Warner National Defense Authorization Act; Section 734: Disease and Chronic Care Management.

The DoD is in the process of transforming its primary care system into a Patient-Centered Medical Home (PCMH) model of care which will improve quality, access to care, coordination, satisfaction and safety for active duty, retired personnel and other beneficiaries. At the DoD level, the TMA, OCMO is responsible for providing guidance and oversight of the medical home initiative. The PCMH branch collaborates with other functional experts in HA/TMA and with the Service representatives to operationalize the PCMH policy and provide subject matter expertise across DoD. In the near term, the MHS is evaluating the effects of PCMH on quality and performance at seven military installations demonstration sites to monitor PCMH operations and measure effectiveness through a range of metrics. In FY 2011, 50 PCMH practices will seek formal recognition through NCQA. The MHS has exceeded the projected number of enrollees to military PCMH practices by 24% since 2009 and accelerated enrollment is expected to continue through FY2011-2013 as the program matures.

PATIENT SAFETY

The DoD Patient Safety Program (PSP) is a comprehensive system-wide DoD program with the mission of establishing a culture of patient safety. This is accomplished through the PSP's focus on leadership, culture, training, coaching and skill building of teams, as well as risk identification and mitigation, and awareness promotion. These core components support the many patient safety activities and initiatives as highlighted below.

During 2010 a comprehensive multi-level course evaluation was conducted to identify organizational barriers and enablers to Patient Safety Manager (PSM) performance and to

demonstrate participants' transfer of learning to the job. The results identified areas for course improvement and a large-scale curriculum revision and course update was completed and piloted in FY 2010.

In collaboration with the AHRQ, DoD PSP launched TeamSTEPPS® in 2007 to build an infrastructure for integration and sustainment of team-based care throughout the MHS to transform the culture into one for which patient safety is a cornerstone. TeamSTEPPS is a team training, implementation, coaching, and sustainment program designed to improve communication and other teamwork skills

among healthcare providers. Since launching TeamSTEPPS, the DoD PSP has developed toolkits which offer just-in-time training, action steps, and resource guides for specific patient safety strategies, and tools that which are presented within the TeamSTEPPS curriculum. In FY 2010, just over 2,000 individuals received TeamSTEPPS training from PSP Master Instructors.

The DoD PSP also provides support to five Centers of Excellence Team Resource Centers (TRCs) across the country for the development, validation, proliferation, and sustainment of team-driven care throughout the MHS. In addition to conducting Tri-service simulation-based training that incorporates TeamSTEPPS principles and tools, TRCs also conduct fundamental research and special projects on teamwork and patient safety, translating research findings and theory into practice, resulting in safer team processes and patient outcomes.

The DoD Patient Safety Center (PSC) serves as the repository for all DoD patient safety data and manages the Patient Safety Registry. DoD

patient safety reports, submitted by MTFs to PSC, increased substantially (23%) in FY 2010. More importantly, data points between FY 2005 – 2010 reveal consistent increased reporting of events. The correlation between an increase in patient safety reporting and a decrease in harm events is substantial and compelling – organizations that report events are safer systems.

The Patient Safety Learning Center (PSLC) promotes communication and increases awareness across the patient safety community. This member-based community Wiki (or Web portal) enables community members to access and contribute lessons learned, best practices, tools and resources, news articles, community events, and much more. The interactive monthly Learning Action Network (LAN) Webinars focus on specific patient safety topics.

Moving forward into FY 2011, DoD plans to continue to emphasize the impact of team-driven care on reducing the risk of error and improving patient care and quality.

ACCESS TO CARE & PATIENT SATISFACTION

The MHS routinely collects, analyzes and synthesizes information to measure beneficiary satisfaction, quality of care, and access to health services. As a means of accomplishing this objective, the MHS consistently uses proven survey instruments and methods to obtain information about its beneficiaries.

The Health Care Survey of DoD Beneficiaries (HCSDB) is a population-based survey that is conducted quarterly. The HCSDB provides information on access to health services as well as satisfaction with care that is provided. The HCSDB allows for comparison with the U.S. population covered by commercial health plans. Overall the TRICARE plan and health care improved between FY 2008 and FY 2010, while the civilian benchmarks decreased. Satisfaction with one's personal or specialty physician also improved during this three-year period, as did the civilian benchmarks. The MHS satisfaction rates continued to lag civilian benchmarks, with the exception of Health Plan, which exceeded the benchmark in FYs 2009 and 2010.

The TRICARE Outpatient Satisfaction Survey (TROSS) collects information on the experience of care received in ambulatory settings. The

survey is conducted monthly by mail and phone and includes both the DC system and the PC networks. Beneficiary overall rating of the health plan among MHS enrollees (the percentage rating eight, nine, or ten on a zero-ten scale) improved from 67 percent in 2008 to 71 percent in 2010. Outpatient health care services increased their satisfaction rating from 75 percent in 2008 to 79 percent in 2010. The MTF-based DC rating increased the most, from 60 percent in 2008 to 65 percent in 2010

The TRICARE Inpatient Satisfaction Survey (TRISS) focuses on inpatient experiences of adults who receive medical, surgical, and obstetrical services at DC and PC hospitals. Like the HCSDB and the TROSS, the TRISS questions were designed to allow for comparison with civilian hospitals across the nation.

The MHS has steadily increased inpatient satisfaction within its DC and PC components from 54 percent in FY 2007 to 56 percent in FY 2009. To facilitate comparative analyses with publically available inpatient satisfaction survey data, the TRISS survey process was designed in FY 2010 and will be implemented by FY2011.

**EVOLVING
PRACTICES &
INNOVATIONS
TO ENHANCE
CLINICAL
QUALITY**

To meet the MHS's mission, health and medical professionals often develop innovative solutions that ultimately improve access, cost and quality of health care while ensuring the medical readiness of our Armed Forces. Often, however, dissemination of these positive ideas and practices is limited.

The Health Care Innovations Program (HIP) serves as a forum for leaders and practitioners in the MHS to celebrate and share innovative programs and ideas for potential system-wide solutions. The goals of the HIP are to showcase MHS innovations from both the direct and purchased care systems in support of the MHS Quadruple Aim and to link people with ideas and innovations. The HIP categories are based on the Quadruple Aim strategy and focus on cost, readiness, experience of care and population health. All submitted abstracts are reviewed by a multidisciplinary evaluation panel of TMA physicians, nurses and administrators. The winner(s) of each category are invited to present their innovations during the 2011 MHS Conference. A synopsis of the award-winning program(s) in each of the four categories appears in section VI of this report.

The US Family Health Plan—one of three managed care plan options under TRICARE that provides civilian health care benefits to military personnel, retirees, and their families had innovative programs recognized for achieving stellar patient satisfaction rates of 91 percent, which is 28 percent higher than

the national average as assessed by NCQA. They also realized clear cost savings, cost effectiveness, and positively impacted patient outcomes.

Innovative and evolving practices continued in the Behavioral Medicine Division (BMD) which supports the MHS Quadruple Aims of medical readiness and experience of care.

Some of FY 2010 Behavioral Medicine sustained initiatives and innovations in medical readiness, the experience of care and benefit options includes:

- New Program to Train and Certify Medical Personnel in Deployment Mental Health;
- Streamlined Certification Procedure for Psychiatric Partial Hospitalization;
- New Center for Treatment of Traumatic Brain Injury and Psychological Health Conditions; and
- A new program, "inTransition," ensures continuity of behavioral health care for Service members as they move between health care systems and/or providers

In addition, TRICARE, the military Services, and the VA have begun using Internet-based tools to identify and treat Service members with traumatic brain injuries and post-traumatic stress disorder. For example, some 780,000 soldiers have responded to the Army's Internet-based Global Accessing Tool to measure resilience and the Service plans to expand its Web outreach.

BIOSURVEILLANCE

The Armed Forces Health Surveillance Center (AFHSC) provides DoD with a unique, centralized epidemiologic capability to promote, maintain and enhance the health of military and military-associated populations by providing relevant, timely, actionable, and comprehensive health surveillance information. Integral to the AFHSC's role is the ongoing monitoring of the prevalence, incidence and trends of infectious diseases in person, place and time. This constant monitoring allows estimates of operational impact and disease burden to be determined, and enables recommendations to be provided to key decision makers within DoD for implementation of control measures in support of Force Health Protection.

In FY 2010, AFHSC generated over 550 time-sensitive, surveillance-related products for DoD stakeholders, from ad hoc requests, that involved scientific rigor and comprehensive analyses. Throughout the year, AFHSC produced nearly 2,800 recurring surveillance reports and summaries of the incidence, impact, distribution and trends of medical events occurring in DoD-associated populations. Such analyses are vital to providing needed expertise for short-term surveillance activities, outbreak investigations, and generation of actionable public health information that contributes to improving and protecting the health of Service members.

The AFHSC Global Emerging Infections Surveillance and Response System (GEIS)' most salient contribution to biosurveillance is its support of the large and comprehensive DoD Influenza Surveillance Network. During FY 2010, the AFHSC-GEIS influenza and respiratory disease surveillance network played an integral role in monitoring the circulation, disease severity, and epidemiologic patterns of influenza viruses (avian, seasonal, and influenza A /H1N1). The AFHSC also hosted bi-weekly Epidemiology Chiefs teleconferences with 32 military associated organizations worldwide, providing a forum for information sharing, professional consultation, and dialogue with the Armed Services' leaders in epidemiology, public health centers, preventive medicine

partners, policymakers, healthcare providers, and researchers.

FY 2010 partner initiatives include electronic surveillance efforts at AFRIMS and at the Naval Medical Research Unit Six (NAMRU-6). Efforts included the continuation of projects with the Royal Thai Army and with the Philippine Ministry of Health. Support and enhancement of the electronic "Unit-based Surveillance (UBS)" project has continued in FY 2010 in remote border areas of Thailand; this early warning system has added three new surveillance stations along the northern Thai-Cambodia border area, and has trained over 1,000 personnel on utilization of the UBS software.

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CLINICAL QUALITY
MANAGEMENT

The Military Health System (MHS) is a global health care network within the Department of Defense that provides health care to all U.S. military personnel worldwide. Equipped with 59 inpatient hospitals, 365 ambulatory care clinics, 281 dental clinics and a nearly \$50 billion budget, the MHS delivers high quality health care to a beneficiary population of almost 9.7 million service members, veterans and family members. The MHS is more than just an expansive network of health care providers; it is also a patient-centered, synergistic team delivering Army, Navy, Air Force and purchased care capabilities that serve, protect and treat all entitled beneficiaries.

II



CLINICAL QUALITY MANAGEMENT
IN THE MILITARY HEALTH SYSTEM



MHS OVERVIEW

The goal of the Military Health System (MHS) is to deliver health services across a range of care venues, from the forward edge of the battlefield to traditional hospitals and clinics located in fixed positions to “anytime, anywhere.” The MHS continues to meet this goal by ensuring world class combat medicine while providing delivery of the TRICARE benefit to DoD beneficiaries.

The MHS mission has four components:

- Casualty care and humanitarian assistance;
- Fit, healthy and protected force;
- Healthy and resilient individuals, families and communities; and
- Education, research and performance improvement.

These components are not mutually exclusive. Commanders and service members partner with

MHS Definition of Quality

“The degree to which healthcare services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”.

DoD Instruction 6025.13, 2011

the MHS to achieve individual medical readiness and enhanced performance of the system. The commanders and beneficiaries expect and deserve responsive, capable, coordinated medical services anywhere, anytime. While providing these services, the MHS also focuses on developing and deploying innovative products and services that meet mission requirements. No other health system in the world can provide what the MHS must provide in a rapidly changing national security environment.

The MHS consists of the following: Office of the Assistant Secretary of Defense for Health Affairs; medical departments of the Army, Navy, and Air Force; Joint Chiefs of Staff; Combatant Command surgeons; and TRICARE Management Activity (TMA).

As an integrated health care delivery network under the authority of the Assistant Secretary of Defense (Health Affairs) and operated by DoD, TRICARE is the health care provider of the MHS. TRICARE provides a full spectrum of health care services to nearly 9.7 million eligible beneficiaries worldwide. TRICARE is composed of two complementary care delivery structures: the direct care (DC) system provides services to patients in Military Treatment Facilities (MTFs) while the purchased care (PC) system provides care to military beneficiaries through commercial providers in civilian health care facilities.

The DC system includes health care resources and capabilities from the Army, Navy and Air Force. The DC system serves beneficiaries throughout the United States and overseas, including those serving in deployed and operational settings. The Surgeon General for each of the three Armed Services assumes the leadership responsibilities for managing and overseeing the delivery of health care provided by his or her Service. TMA works collaboratively with the Services in providing support and guidance.

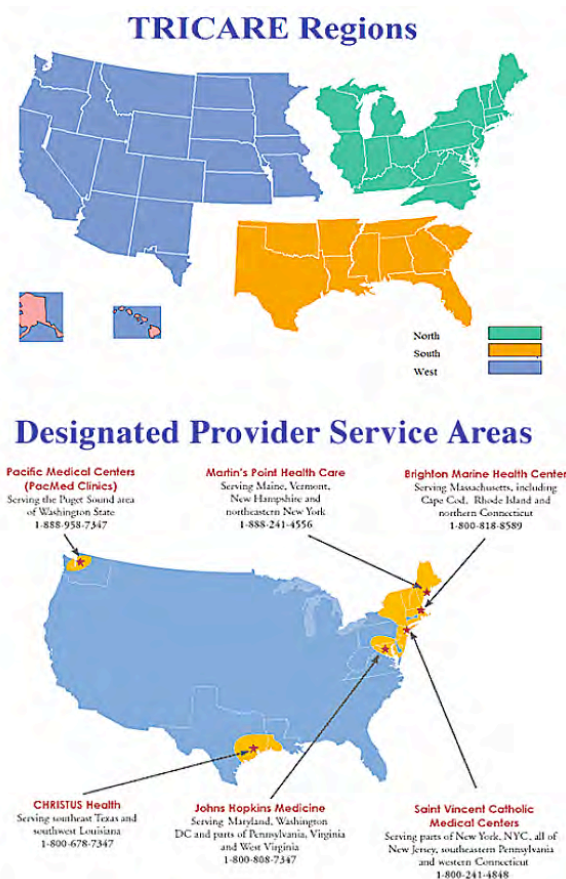


Figure 2-1: TRICARE Regions Covered by MGSCs and DPs

The PC system includes three large managed care support contractors (MCSCs) and designated providers (DP). Like the DC system, TMA also provides oversight for quality of care and fosters improved integration with the PC community. The DPs and MCSCs supplement the DoD's ability to meet the MHS mission and are committed to the tenets of the Quadruple Aim with a focus on achieving improved population health, superior member experiences, responsibly managed cost, and support the of medical readiness for active duty service members.

The MCSCs provide care in three geographic regions: the North, administered by Health Net Federal Services; the South, administered by Humana Military Healthcare Services; and the West, administered by TriWest Healthcare

Alliance. The MCSCs provide care for active duty service members (ADSMs), active duty (AD) family members, retirees and retirees' family members younger than age 65. These programs administer the TRICARE benefit for an estimated three million beneficiaries per region.

The DPs provide care to 110,000 beneficiaries in six primary locations: Pac Med US Family Health Plan (USFHP) in WA; CHRISTUS Health in Texas; Brighton Marine in MA; Martin's Point in ME; Johns Hopkins USFHP in MD; and St. Vincent's USFHP in NY. The DPs serve the Medicare-eligible population as well as provide care to AD family members, retirees, and retirees' family members. (Figure 2-1)

COMMITMENT TO QUALITY

Quality Health Care

The MHS is committed to the health and well-being of service members, retirees and their families. Disease prevention and evidence-based treatment are the keys to improving beneficiaries' quality of life, which helps them achieve optimal health and physical fitness while becoming an even more effective military force.

MHS beneficiaries desire health services that are convenient and tailored to their individual health and medical needs. Providing high quality, evidence-based care to beneficiaries seamlessly across the health system encourages our beneficiaries to team up with their providers on their course of treatment, resulting in behavior that promotes health and conserves resources.

The quality of health care provided by DoD is measured in a variety of ways, using civilian benchmarks whenever possible. Sources to be evaluated include information obtained from electronic administrative and clinical data, abstraction of medical records and, perhaps most importantly, surveys of DoD beneficiaries.

The MHS maintains active and effective organizational structures, management emphasis, and program activities to assure quality in health care. Quality health care is the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

In accordance with the authority in DODI 6025.13, DoD implements policy and the TRICARE operations manual, assigns responsibilities and provides procedures for managing the DoD Medical Quality Assurance and Clinical Quality Management (CQM) in the MHS.

CQM activities include the following elements:

- Clinical performance measurement and improvement;
- Credentials and clinical privileges;
- Risk management (RM);
- Adverse actions; and
- Patient safety.

The MHS employs strategies to continuously study and improve the processes and outcomes in the provision of health care services. These strategies support MHS quality health care and address the six dimensions defined in the medical literature as important for quality care. The six dimensions are based on the Institute of Medicine's (IOM) six aims for quality and correspond with the goals of the MHS that care must be safe, effective, patient-centered, timely, efficient and equitable:

Safe — Avoid injuring patients when providing the care that is intended to help them;

Effective — Provide services, based on scientific knowledge to all who could benefit and refrain from providing services to those not likely

to benefit (avoiding under use and overuse, respectively);

Patient-centered — Provide care that is respectful of and responsive to individual patient preferences, needs and values and ensure that patient values guide all clinical decisions;

Timely — Reduce waits and sometimes harmful delays for both those who receive and those who give services;

Efficient — Avoid waste, including waste of equipment, supplies, ideas, and energy; and

Equitable — Provide care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location or socioeconomic status.

Guiding Principles

Through Clinical Quality Management, TRICARE optimizes quality in the MHS based on the Institute of Medicine's (IOM) six aims for quality by:

- Promoting clinical quality across the MHS in alignment with the strategic plan;
- Preventing possible causes of medical error through the use of measurement;
- Utilizing a variety of clinical quality measures to continually assess the care provided across the system and at each level of the organization;
- Aligning with the national agenda to develop health care quality consensus measures and comparisons; and
- Ensuring that the MHS remains in the forefront of health care quality measurement by seeking current information on clinical measures that are used to improve clinical quality.

MHS Transparency

Health care transparency is a broad-scale initiative enabling consumers to compare the quality and price of health care services, so they can make informed choices among providers and health care facilities. Executive Order 13410: Promoting Quality and Efficient Health Care in Federal Government Administered or Sponsored Health Care Programs, issued by President Bush in August 2006, mandated that applicable health care programs measure the quality of health care services and report results

to providers and beneficiaries. The DoD is a part of this initiative and has collaborated with the VA and the Department of Indian Affairs to accomplish this goal.

The DoD continues to build a transparent value-driven health care system across the MHS to provide beneficiaries with tools to make informed decisions about their health care, with respect to both cost and quality. In an effort to make that support known to beneficiaries, the MHS has undertaken many initiatives to increase access to information for informed decision making. The following are a few select examples.

In FY 2008, inpatient ORYX® data was added to the MHS Clinical Quality Management Web site (www.mhs-cqm.info). Comparative data for DC and PC facilities and non-network facilities were added in FY 2009. Continued improvements to data access on the Web site for ease of use were made in FY 2010. Access to this data enables beneficiaries to make informed choices and decisions about where they receive inpatient care. The MHS, in addition, established the TRICARE Transparency Web site (www.tricare.mil/transparency) that provides information on pricing, information technology, and quality across the system.

Purchased Care has also participated in a variety of transparency initiatives which continue to increase the flow of information across the network (e.g., Pacific Medical Centers in the Puget Sound Health Alliance produces a quality report, by practice, for the community, and publication by health plans of patient satisfaction information on the Internet for the community to review or Humana Military's network provider transparency initiative that provides administrative quality and practice affordability data).

Additionally, the MHS also reaches out to beneficiaries to keep them informed using the Internet and social media. Such initiatives include the following:

On the Web: TRICARE and the regional health care contractors post a range of educational materials online to educate beneficiaries on the risks and prevention of heart disease at www.health.mil/Themes/Heart_Health.aspx.

Podcasts: The weekly TRICARE Beneficiary Bulletin podcasts give beneficiaries quick, weekly updates they can access on their own schedule. Podcasts are at www.tricare.mil/iTunes or in the Apple iTunes Store under “TRICARE.”

Facebook: TRICARE and the regional health care contractors all maintain Facebook pages to connect with military Service members, families, and customers. The Facebook pages highlight TRICARE news, benefit changes, healthy living tips, and stories that interest its military families.

Email: Beneficiaries can receive e-mail notifications of the latest TRICARE news and health information. Beneficiaries can subscribe to and receive as many or as few items as they like based on their beneficiary category or topics of interest by creating an account at www.tricare.mil/subscriptions.



Figure 2-2 Quadruple Aim

Quadruple Aim

The center piece of the MHS strategy is the Quadruple Aim —readiness, population health, experience of care and per capita costs. (Figure 2-2) There are four tenets of the Quadruple Aim:

- **Readiness** — Ensure that the total military force is medically ready to deploy and deliver health care anytime, anywhere in support of the full range of military operations, including humanitarian missions.

- **Population Health** — Reduce ill health by encouraging healthy behaviors and decrease the likelihood of illness through focused prevention and the development of increased resilience.
- **Experience of Care** — Provide a care experience that is patient- and family-centered, compassionate, convenient, equitable, safe, and always of the highest quality.
- **Per Capita Costs** — Create value by focusing on quality, eliminating waste and reduce unwarranted variation; consider the total cost of care over time, not just the cost of individual health care activities.

Over the past 12 months, the MHS identified more than 15 performance measures with established baselines and aggressive targets that extend out to 2014. These measures will allow the MHS to measure how well it is meeting the Quadruple Aim and to identify areas that need improvement.

The MHS’s commitment to being patient-centered and providing quality health care also includes providing relevant Quality Assurance (QA) aggregate data to its beneficiaries, enrollees and providers in an easy-to-understand format, in collaboration with similar initiatives in the private sector and non-federal public sector.

CLINICAL QUALITY ARCHITECTURE

Clinical Quality Management is reliant upon continuous, multidirectional communication with the many components, agencies and disciplines within the MHS. Formal structures and processes have been established to support clinical quality management in the MHS.

Quality Oversight in Army, Navy and Air Force Direct Care System

The Office of the Surgeon General for each of the Services is responsible for and provides oversight of the quality of care and services provided to enrolled beneficiaries within each Service’s health care facilities. This oversight is accomplished with the aid of subject matter experts on health care quality at the regional and/or facility level. The Surgeon General for each Service develops a strategic plan for their Service that is aligned with the strategic direction of the MHS. Quality plans are developed at the facility level to guide and direct the organization’s quality-related functions and initiatives.

Quality Oversight in Purchased Care System

All contractors in the PC system are required to have quality-management processes and infrastructures that meet TRICARE requirements and national standards.

Quality oversight for the MCSCs is provided through the TRICARE regional offices (TRO). Quality monitoring of the DPs is provided through the Designated Providers Program Office (DPPO) and Office of the Chief Medical Officer staff who conduct annual site visits to each of the primary locations.

Committees

The MHS has a number of formal committees that strive to maintain communication and disseminate information in support of clinical quality management oversight of the Services and PC system. These committees successfully connect information flow from policy development and implementation through the evaluation process. (Figure 2-3)

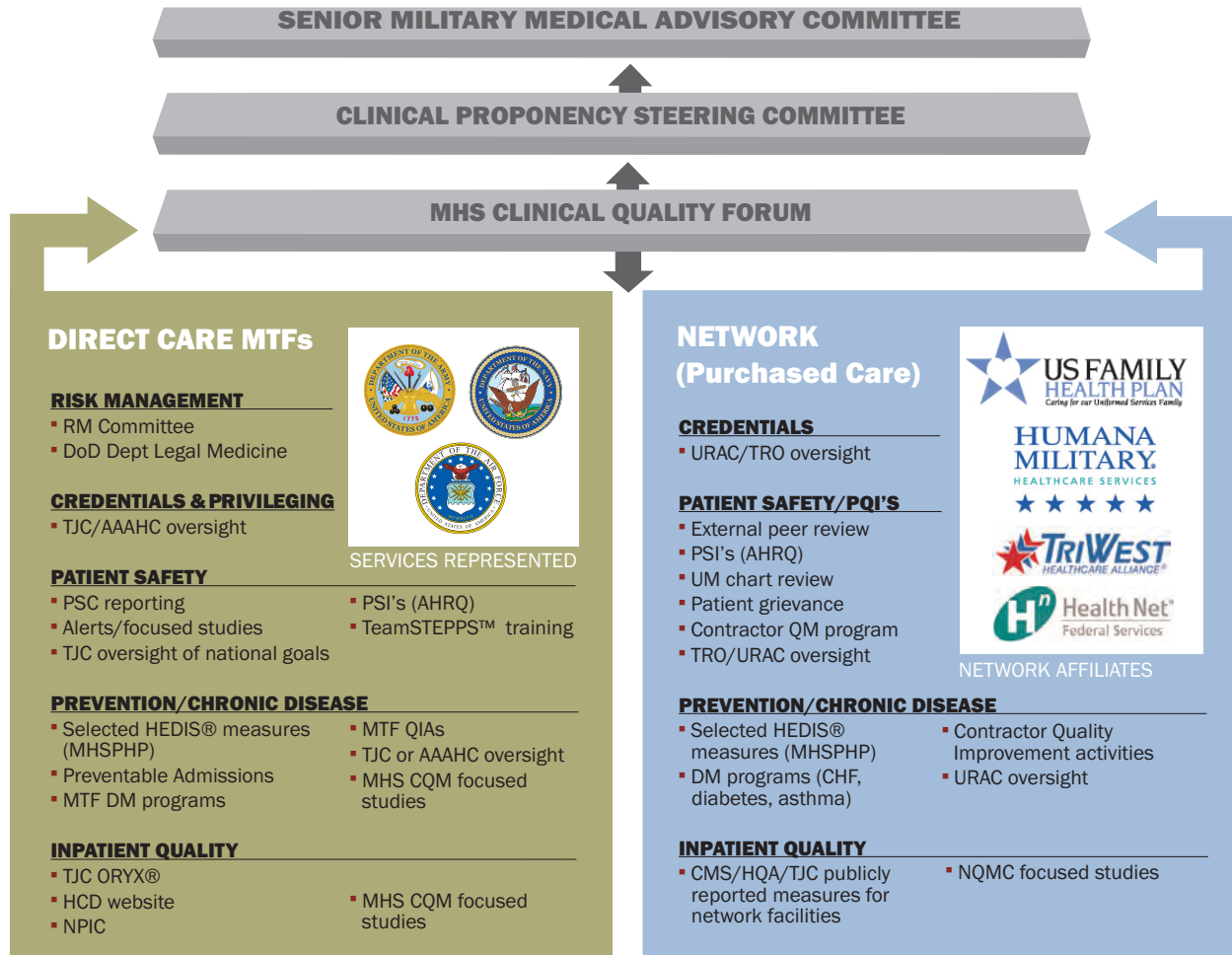


Figure 2-3: Clinical Quality Architecture for Direct and Purchased Care

Senior Military Medical Advisory Council

The strategic direction of Clinical Quality Management in the MHS is established by the Senior Military Medicine Advisory Council (SMMAC), which is responsible for decision making and periodic monitoring of key strategic and operation milestones. Led by the Assistant Secretary of Defense (Health Affairs), the membership of SMMAC includes the Service Surgeons General, Joint Staff Surgeon, Principle Deputy Assistant Secretary of Defense (Health Affairs), the Deputy Assistant Secretary of Defense (Clinical & Program Policy), Deputy Assistant Secretary of Defense (Force Health Protection & Readiness), Deputy Assistant Secretary of Defense (Health Budget & Financial Policy), Deputy Director (TRICARE Management Activity), and the MHS Chief Information Officer (TRICARE Management Activity).

Clinical Proponency Steering Committee

Oversight of the development and implementation of clinical policies, practices and systems to support implementation of the strategic goals of the MHS is the responsibility of the Clinical Proponency Steering Committee (CPSC). The CPSC serves as the Quality Council for the MHS. The membership of CPSC includes Deputy Assistant Secretary of Defense (Clinical & Program Policy) who serves as chairman, Deputy Surgeons General of the military services and United States Public Health Service, Deputy Assistant Secretary of Defense (Force Health Protection & Readiness), Deputy Assistant Secretary of Defense (Health Budgets and Financial Policy), Deputy Director (TRICARE Management Activity), and Chief Information Officer (TRICARE Management Activity).

The MHS Clinical Quality Forum

The Clinical Quality Forum (CQF), a collaborative committee sponsored by the Deputy Assistant Secretary of Defense (Clinical and Program Policy), has oversight responsibility for clinical quality assessment across the DC and PC of the MHS. CQF’s primary responsibilities are to continually monitor key performance indicators and to evaluate the quality of health care provided to DoD beneficiaries. CQF provides ongoing updates and recommendations to senior leadership through regular reporting to the CPSC.

A number of working groups and panels, aligned under the MHS CQF, focus on specific quality initiatives and programs. This Forum facilitates collaborative work through initiating and implementing clinical quality-related activities. For example, the Scientific Advisory Panel (SAP) identifies potential performance improvement opportunities for study and analysis, while the Clinical Measures Steering Panel (CMSP) focuses on MHS performance in clinical quality measures.

Several functional work groups were implemented to focus on improving quality within specialized medical disciplines. These work groups include the Anesthesia Reporting and Monitoring Panel (ARM-P), the Infection Prevention and Control Panel (IPCP), and the Prenatal Advisory Group (PAG). These working groups are comprised of medical subject matter experts from the three Services and they report up through the CQF.

External Review Contracts Supporting Clinical Quality Management in the MHS

The MHS Clinical Quality Management Support Contract (MHS CQM SC) is part of an overall TMA strategy to become a provider of world-class health care. Currently, this contract is administered by Lockheed Martin Health Solutions. The MHS CQM SC collects, manages and reports DoD’s performance measures and accreditation requirements including TJC’s ORYX® measures, the CMS National Hospital Measures, health plan quality measures, and the Agency for Healthcare Research and Quality (AHRQ) measures. These data are analyzed to identify areas of excellence and opportunities for improvement. The MHS

CQM SC also conducts clinical studies, evaluating specific processes and outcomes of care and utilizing private sector-comparable data when available. DoD leadership and health care providers use these independent, impartial analyses of MHS clinical data to evaluate policy and practices in the MHS with a focus on improving performance.

The MHS CQM SC develops education programs from the studies to translate findings and recommendations into solutions that can be applied to clinical practices. Online continuing medical education (CME) and continuing nursing education credits (CNE) are given to participants through a partnership with the Uniformed Services University of the Health Sciences (USUHS). The online educational activities are available to policymakers and health care professionals at every level of the MHS. In addition, the MHS CQM SC provides for consultative site visits to military inpatient and ambulatory facilities to help organizations use their external data (e.g., TJC ORYX® and the Special Studies) for performance improvement initiatives.

The external peer review processes for the purchased care network are conducted by the National Quality Monitoring Contractor, currently MAXIMUS. In accordance with this contract, MAXIMUS completed randomized retrospective reviews on over 1400 inpatient medical records per month to evaluate care delivered to beneficiaries. MAXIMUS also performs healthcare technology assessments, supports TMA Appeals and Hearings, and provides MTF’s standard of care reviews performed by board certified specialty matched providers. In 2010, a Request for Proposal (RFP) for the TRICARE Quality Monitoring Contractor (TQMC) was released and the contract was awarded to Keystone Peer Review Organization (KEPRO). The contract will begin in April 2011.



SYSTEMS & PROCESSES SUPPORTING QUALITY OUTCOMES

Information technology is a valuable tool in the delivery of quality health care because it facilitates the sharing of medical information among providers and with beneficiaries, increases patients' access to care, and contains medical and administrative costs. The MHS continues to implement technology to further its mission to create a world-class health care system.

The MHS Population Health Portal



The MHS Population Health Portal (MHSPHP) is a Tri-Service, Web-based tool that generates detailed action and prevalence lists for providers of clinical preventive services and disease and condition management for enrolled TRICARE beneficiaries. The MHSPHP allows both MTFs and headquarters staff to track aggregate information and compare MTF data with the National Committee for Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®) benchmarks and guidelines for numerous measures. The MHSPHP is easy to access and is intended to actively assist clinic managers, health care integrators, clinical epidemiologists, and other clinic personnel in managing the delivery of quality health care. The MHSPHP provides access to data in numerous areas:

- Assessment of population health demographics;
- Demand forecasting for health preventive services and disease management of enrolled populations;
- Collection of patient-specific information by health care providers;
- Analysis of high utilization rates of primary care for prospective case management patients;
- Allocation of resources where they are most needed; and
- Identification of opportunities for improvement.

In the first quarter of FY 2011, an enhanced version of MHSPHP will be released, and hosted on the new CarePoint framework. The redesigned MHSPHP will incorporate many user-requested enhancements and ideas made possible by advances in web-based technologies. The overall functionality of the enhanced

MHSPSP will remain the same as described above.

The main purpose of the redesign is to provide additional transparency and timelier data to the user while allowing the user to interact dynamically with the system. To enhance the data presented, the redesigned MHSPHP process additional data sources, refreshes select data nightly, and permit local MTF users to enter data from external sources and exclude patients when appropriate. The new MHSPSP also will include underlying encounter, lab, and medication data that contributed to an enrollee's placement on selected action lists.

The new MHSPSP will provide interactive reporting capabilities for patient information as well as HEDIS® measures. Because of the additional user-entered data available, MTF-adjusted HEDIS® scores will also be presented. Users will be able to quickly customize pages, patient lists and reports without requiring advanced computer skills. Moreover, the user will be able to display all data related to a patient on one page, build custom dashboards, and filter data by a variety of parameters.

The MHS Electronic Health Record

The DoD electronic health record (EHR) system—including AHLTA and the legacy Composite Health Care System (CHCS)—supports the DC system MHS professionals responsible for health care quality by promoting good health, delivering uniform quality health care, developing evidence-based clinical practice guidelines, and performing medical surveillance, clinical analysis, and outcomes research. A key enabler of military medical readiness, the EHR captures and stores structured data in the AHLTA Clinical Data Repository (CDR), giving health care providers secure 24/7 access to electronic health information (EHI) of DoD's highly mobile beneficiaries. To fully support information requirements, the EHR system must extend to deployed treatment settings—including Iraq, Kuwait and Afghanistan. AHLTA-Theater (AHLTA-T) meets this requirement, capturing outpatient encounter records in theater and transferring them to the CDR.

Since AHLTA's worldwide implementation in 2006, AHLTA use has grown at a significant

pace. As of September 2010, AHLTA has processed and stored records of more than 156 million outpatient encounters in its CDR, processing approximately 144,000 encounters each workday. More than 3.6 million outpatient encounters in theater have been documented in AHLTA-T and transferred to the CDR. Records in the AHLTA CDR are retrievable at nearly 900 fixed and deployed medical and dental treatment facilities.

AHLTA incorporates evolving clinical requirements and technological advances to support clinicians as they promote health care quality, patient safety, and efficiency in the care delivery process. Executive-level reports on common diagnoses and procedures enable clinicians to identify health trends or concerns. Integrated orders data and patient information — including laboratory and prescription data — help clinicians prevent errors by providing warnings of potential drug interactions, prescribing errors, allergies, or overdose possibilities before a prescription is filled. AHLTA's Computer-based Provider Order Entry (CPOE) capabilities support healthcare administration activities and patient safety. For example, CPOE helps clinicians avoid serious medication errors, improves coding practices, reduces duplication of tests, and reduces turnaround times for laboratory, radiology and pharmacy requests. Standardized documentation improves the quality of electronic data in the record, supporting the provision of quality care throughout the continuum of care and fulfilling coding requirements for accurate reimbursement for that care. New software capabilities support automated clinical practice guidelines, electronic patient signatures, and health history modules that allow patients to self-report information.

Data from the AHLTA CDR supports health care quality for beneficiaries as they move beyond DoD to the Department of Veterans Affairs (VA). As of September 2010, the AHLTA's Bidirectional Health Information Exchange (BHIE) inpatient and outpatient documentation sharing capability offered VA clinicians and benefits claims specialists bidirectional access to data on more than 3.8 million patients shared by DoD and VA. VA and DoD share computable outpatient pharmacy and medication allergy data through

the interface between the AHLTA CDR and VA's Health Data Repository (HDR). This initiative is called "CHDR." Exchanging standardized pharmacy and medication allergy data on patients supports better patient care and safety through the ability to conduct drug-drug and drug-allergy interaction checks using data from both systems. DoD providers have an integrated view of medication data from many sources: the DoD MTFs; the retail pharmacy network; the VA facilities; and the DoD and VA mail order pharmacies. As of September 2010, DoD and VA exchanged computable outpatient pharmacy and medication allergy data on over 251,200 patients who receive healthcare from both systems.

In theater, supporting quality health care requires a specialized information solution. The Theater Medical Information Program-Joint (TMIP-J), an integrated suite of software solutions that includes AHLTA-T and supports military readiness and health care quality, offers a modular, scalable version of AHLTA built to operate in low to no communications environments. TMIP-J's systems support several DoD functions. The TMIP-J systems capture and manage EHI in support of DoD's EHR support the delivery of advanced health care in the most challenging conditions (including theater and shipboard), support Service members' continuum of care from theater to the home front, and enable DoD to share pertinent clinical theater data with VA. TMIP-J's systems also facilitate medical supply and equipment tracking, patient movement visibility, and health surveillance in theater.

In garrison, inpatient health care is currently supported by DoD's inpatient documentation system (IDS). Clinicians use IDS to document health care provided in critical care, acute care, labor and maternal childcare, psychiatric care, pediatrics, and operative care. IDS enhances productivity by eliminating most paper-based inpatient documentation. For example, use of the inpatient documentation capability at Landstuhl Regional Medical Center plays a critical role in ensuring continuity of care and supporting the capture and transfer of inpatient records of care for wounded warriors. Information from these records is accessible stateside to DoD providers caring for injured Service members and inpatient discharge

summaries are available to VA providers caring for injured Service members and Veterans.

As of September 2010, DoD's IDS was operational at 41 of 59 DoD inpatient sites, representing more than 77 percent of DoD's total inpatient beds. DoD aims to increase access to inpatient documentation for shared patients from IDS to 100 percent of DoD inpatient beds by January 31, 2012.

Health care quality also receives a boost from tools that give MHS beneficiaries increasing access to personal EHI. For instance, TRICARE Online (TOL) increases beneficiaries' opportunities to perform the following activities online: access personal EHI, educational

materials, and appointment scheduling; submit periodic Health Risk Assessments; and request prescription refills, integrating the TRICARE Mail Order Pharmacy and VA Consolidated Mail Order Pharmacy. TOL also optimizes MHS business management with a common MHS-wide Web portal focused on providing patient centric services. TOL Booking Appointments for Minors now extends online appointment booking to parents and guardians of minor beneficiaries. Another new feature, the Blue Button, allows TOL users to save certain personal health data to a portable document format (PDF) or text file. These tools help inform beneficiaries about health care, enhance their ability to make healthy choices, and increase their opportunities to participate in care and treatment decisions.

ACCREDITATION & CERTIFICATIONS

Hospitals and freestanding clinics across the MHS are required to obtain accreditation from external accreditation agencies. All MTFs maintain appropriate nationally recognized certification — for ancillary services such as blood banking, radiology and laboratory services — based on federal regulations and the respective armed services policies. The MCSCs, DPs and overseas health care contractors ensure quality of care and services for TRICARE beneficiaries by adhering to their contract requirements, which comply with the TRICARE Operations, Policy and Reimbursement and Systems manuals.

Accreditation guidance and standards that may be applicable in either the DC or the PC system are identified in the accreditation standards for: The Joint Commission (TJC), an independent, not-for-profit organization that accredits and certifies 18,000 plus health care organizations/programs; the Commission on Accreditation of Rehabilitation Facilities (CARF), which accredits service providers in meeting internationally recognized organizational and program standards; the Accreditation Association for Ambulatory Health Care (AAAHC), a non-profit organization that accredits over 4,600 organizations in a wide variety of ambulatory health care settings; and the Healthcare Facilities Accreditation Program (HFAP) administered by the American Osteopathic Association (AOA), which is the accrediting agency for all osteopathic medical colleges and health care facilities. There are additional accrediting bodies approved by the ASD(HA) that may also be used by various MTFs or PC providers.

Additionally, the contracted providers have achieved accreditation through other nationally recognized accrediting organizations, including URAC (an independent, nonprofit organization that promotes health care quality through its accreditation, education and measurement programs) and the National Committee for Quality Assurance (NCQA) (a not-for-profit organization that accredits health plans in more than 60 standards and 40 areas of performance) and compliance with the ISO 9001:2000 requirements. The requirements of the ISO 9001:2000 are generic and intended to be applicable to all organizations, regardless of type, size and product provided. ISO 9001:2000 specifies requirements for a quality management system.

The contractors have also achieved accreditation for a number of their programs, including network management, case management, utilization management, HIPAA, and disease management. Annually, each contractor provides a quality management plan and an annual report that depicts the types of quality oversight, quality improvement initiatives, the projects and studies that have taken place during the year. The mandate for external accreditation reflects DoD's commitment to ensuring that the structures and processes for delivering care are of the highest quality. As a result of the accreditation process, performance improvement strategies have been developed that assist direct care as well as purchased care providers in continuously improving the safety and quality of health care.

EDUCATION & TRAINING

MHS continues to provide its personnel with the knowledge and training necessary to meet the requirements of DoD policy through multimedia education. For example, TMA supports training via classroom instruction that can be accessed online. This site provides information about registering for the onsite and online web-based courses offered by TMA. The onsite classroom instruction is an expert-led, interactive, four-day Medical Management Course based on the principles and business planning tools outlined in the TRICARE Medical Management Guide. Six Medical Management Courses are offered throughout the three TRICARE regions annually, providing Continuing Medical Education (CME) and Continuing Nursing Education (CNE) units. Also available from the Military Health System Clinical Quality Management (MHS CQM) Web site are

online educational activities based on evidence-based research studies that offer free CME and CNE units. These activities are available at www.mhs-cqm.info. Medical management education is also included in presentations at national meetings (e.g., National TRICARE Conferences) and through written publications. In addition, expanded education to MHS quality professionals is provided through IHI learn, which includes access to tools and health care quality courses.

Other opportunities are afforded MHS personnel through Joint Commission fellowships and CME offerings. Specialty areas such as Population Health and Patient Safety also have education and training (webinars, podcasts, classes and on-line activities) that uniquely meet their staffs' needs.

MHS CLINICAL QUALITY MANAGEMENT REVIEW

Ongoing review and evaluation of the design and implementation of clinical quality in the MHS occurs in multiple venues. Leadership from the Services, TRICARE Management Activity and healthcare support contracts meet monthly to present, review and evaluate quality activities and initiatives in both the direct and purchased care systems. Venues to ensure feedback is received from the health care provider level as well as the Service headquarters and TRICARE Regional Offices support a multilevel review. The MHS CQF is providing oversight and guidance for review and implementation of these recommendations. At a minimum, quarterly reports are provided the senior leaders of the MHS.

The second annual clinical quality summit was held in August 2010 with quality leaders from across the system. Presentations by a number of nationally recognized healthcare leaders energized participants to identify several overarching goals for the year. The program also included updates from all the Services, TMA and the MCSCs. The Summit afforded the opportunity for an exchange of ideas and the building of communities for the ongoing flow of information and knowledge sharing on quality initiatives. Information shared and gathered will enhance the quality management strategic plan under development.

An area for potential improvement identified by MTF level quality specialists is the



development of standardized foundational competencies for quality staff based in the military system. This year's efforts included the completion of a needs assessment for skill development. Additionally, the Institute for Healthcare Improvement open school online education programs focused on quality, patient safety and leadership was made available to quality staff across the MHS. Next efforts will focus on identification of additional professional development opportunities with a focus on maximizing value for resources expended.

The MHS has gathered recommendations from internal and external sources on the need to leverage information technology support of enhancing and ensuring the quality of care provided to beneficiaries. A redesign of the MHS Population Health Portal has been accomplished, which benefits quality

management in both purchased and direct care. Consistent health plan performance data is available at all levels of the system. The data is linked to the point of care to support providers in delivering recommended evidence based preventive, acute and chronic care. Additionally, quality leaders are engaged in discussions and planning for both the inpatient and outpatient electronic medical records to ensure capabilities that support the provision of safety and high quality of care are incorporated.

With an established quality management infrastructure which includes internal and external reviews, the MHS is positioned to capitalize on existing and evolving practices affecting healthcare quality. The collaborative approach and consistent lines of communication facilitate the ongoing review and continuous improvement of clinical quality management in the MHS.

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EVIDENCE-BASED
PRACTICE AND
CLINICAL QUALITY
MEASUREMENT

The Institute of Medicine’s (IOM) Roundtable on Evidence-Based Medicine defines evidence-based medicine (EBM) to mean that to the greatest extent possible, the decisions that shape the health and health care of Americans—by patients, providers, payers, and policy makers alike—will be grounded on a reliable evidence base, will account appropriately for individual variation in patient needs, and will support the generation of new insights on clinical effectiveness. EBM seeks to clarify aspects of medical practice that are in principle subject to scientific methods and to apply these methods to ensure the best prediction of outcomes in medical treatment.

Like its civilian counterparts, the Military Health System (MHS) is concerned about the quality and cost of health care. DoD is therefore committed to evidence-based medicine and incorporates evidence-based clinical practices into the MHS to ensure DoD beneficiaries receive care based on current scientific evidence. Strategies identified to accomplish this mission include the development and communication of evidence-based clinical practice guidelines as well as measures of compliance.



EVIDENCE-BASED PRACTICE
AND CLINICAL QUALITY MEASUREMENT



To assess the care provided in the MHS, DoD utilizes nationally recognized clinical quality measures as well as accreditation by external agencies with industry-wide accepted standards. MHS staff participate in the development, review, and acceptance of quality measures established by the National Quality Forum (NQF) and the Agency for Healthcare Research and Quality (AHRQ). Additionally, the MHS Clinical Quality Forum (CQF) and the MHS Clinical Measures Steering Panel are central to the effort to promote clinical quality across the MHS in alignment with the MHS strategic plan. The CQF provides ongoing updates and recommendations to senior leadership and disseminates quality information across the MHS to advocate adoption of best practices. The Clinical Measures Steering Panel provides guidance and overall direction for MHS clinical quality measures initiatives.

CLINICAL PRACTICE GUIDELINES

DoD is committed to the use of evidence-based CPGs to achieve consistency in practice patterns and improve quality of care delivered to beneficiaries. Through a collaborative relationship, DoD and the VA continue to develop and promote the use of CPGs in ambulatory care settings.

Dissemination of CPGs assists health care teams by providing evidence-based recommendations that lead to improved quality of clinical decisions, improved consistency of care, and reduced variation in clinical practice. CPGs are available to be viewed on both Army (www.QMO.amedd.army.mil) and VA (www.healthquality.va.gov) Web sites.

During FY 2010, the Evidence Based Practice Workgroup achieved its annual target of developing or updating four CPGs, using clinically diverse teams of subject matter experts in the CPG development process with no industry or pharmaceutical bias. When appropriate, the Evidence Based Practice Workgroup collaborates with national professional organizations for CPG development. Current collaborations are with the American Heart Association on the Stroke Rehabilitation CPG update and the American Pain Society on the Peri-Operative Pain CPG update. Such collaborative efforts conserve DoD's personnel and financial resources.

At the present time, 23 CPGs serve as the foundation for interagency condition management throughout the MHS and VA:

Chronic Disease

1. Asthma
2. Chronic Heart Failure
3. Chronic Kidney Disease
4. Chronic Obstructive Pulmonary Disease
5. Diabetes Mellitus

6. Dyslipidemia
7. Hypertension
8. Ischemic Heart Disease
9. Obesity and Overweight
10. Tobacco Use

Mental Health

11. Bipolar Disorder in Adults
12. Major Depressive Disorder
13. Post Traumatic Stress Disorder
14. Substance Use Disorder

Pain

15. Opioid Therapy for Chronic Pain
16. Low Back Pain
17. Post-Operative Pain

Rehabilitation

18. Concussion/Mild Traumatic Brain Injury (mTBI)
19. Lower Limb Amputation
20. Stroke Rehabilitation

Military-Unique

21. Medically Unexplained Symptoms (MUS)
22. Post Deployment Health (PDH)

Women's Health

23. Pregnancy

Many primary care providers in the purchased care (PC) network have small panels of TRICARE beneficiaries and participate with numerous major medical plans in the PC system. The expectation for all plans is that the providers practice evidence-based medicine and adhere to selected guidelines in the care of all of their patients, regardless of the payer.

QUALITY MEASURES

Quality measures help MHS beneficiaries compare the quality of care provided in medical facilities and assist them in making informed decisions

about the quality of health services available to them and their families. The standardized and consensus-based metrics are also essential for

leaders and stakeholders who are focused on evaluating and improving the quality of health care delivered in the direct care (DC) and purchased care (PC) network of the MHS.

The MHS uses national consensus measures for evaluating the quality of care provided in the DC and PC systems. Many of these measures have been formally endorsed by the NQF, a multi-stakeholder organization that is comprised of more than 350 organizations representing consumers, purchasers, health care professionals, providers, health systems, insurers, state governments, and federal agencies. metrics endorsed by NQF include but are not limited to many of The Joint Commission's ORYX® quality measures and the National Committee for Quality Assurance's (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®), a tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service.

Hospital Quality Measures

DoD analyzes a range of hospital quality data to assess its clinical performance against established national average benchmarks. Among the metrics used by DoD are the Process of Care measures included on the Hospital Compare Web site. Hospital Compare is a Web-based quality tool provided by the Center for Medicare and Medicaid Services (CMS) that includes hospital Process of Care measures that show how well hospitals provide care that is recommended for patients being treated for a heart attack, heart failure, pneumonia, asthma (children only), or for patients having surgery. Measures included in the Hospital Compare Web site are consensus-

based and endorsed by the NQF.

MHS CQM is in its second year of using the Hospital Compare data submitted to CMS as a way for beneficiaries to compare health care plans provided in their area. The MHS CQM Web site currently contains not only DC MTFs but also PC network and non-network facilities.

In FY 2010, the TRICARE Regional Offices (TRO) and MCSCs continued to access action lists from the Portal identifying beneficiaries who were not compliant with recommended screenings. The T3 contracts contain award fee provisions for award fees for improvement in compliance with HEDIS® metrics. TMA has worked diligently with TRO North and Health Net to prepare for the inclusion of these clinical incentives in the award fee process and will do similarly for the south and west contract transitions.

In addition to metrics found on Hospital Compare, DoD also evaluates performance on pregnancy-related measures to reflect the substantial pregnancy-related patient volume in the MHS. Metrics include The Joint Commission's pregnancy measures and the National Perinatal Information Center's (NPIC) comparative data.

A focused analysis of measures identified for improvement (Figure 3-1) shows that when the MHS PC and DC rates are compared to the National Hospital Compare rates over time, all the measures are now in an upward trend, demonstrating improvement in meeting national standards.

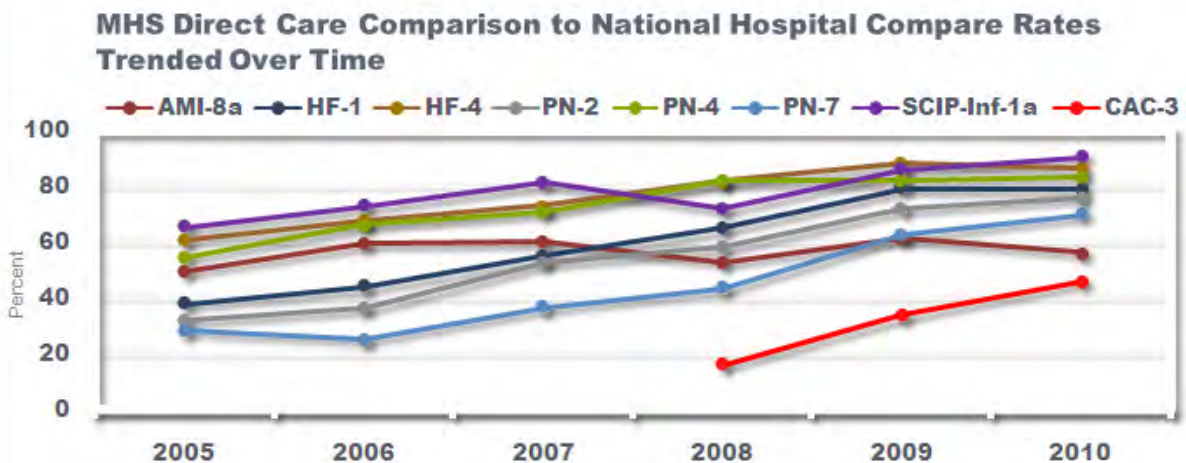


Figure 3-1: National Hospital Quality Measure Comparison (July 2005-June 2009)

Acute Myocardial Infarction (AMI)

An acute myocardial infarction (heart attack) happens when the arteries leading to the heart become blocked and the blood supply is slowed or stopped. When the heart muscle can't obtain the oxygen and nutrients it needs, the part of the



heart tissue that is affected may die. This scenario results in hospitalization and/or death of the patient, depending on the extent of heart damage.

The MHS collected data on six processes of care measures for the AMI population. Figure 3-2 shows MHS overall performance rates as compared with the national rates. Performance was either slightly higher or comparable for five of the seven measures. AMI-8 lags behind the national average in direct care hospitals. Quarterly performance data are provided to the MTFs to support care reviews and improvement initiatives.

Acute Myocardial Infarction (AMI) Measures: Comparison of MHS PC & DC to National Hospital Compare Rates (July 2009-June 2010)

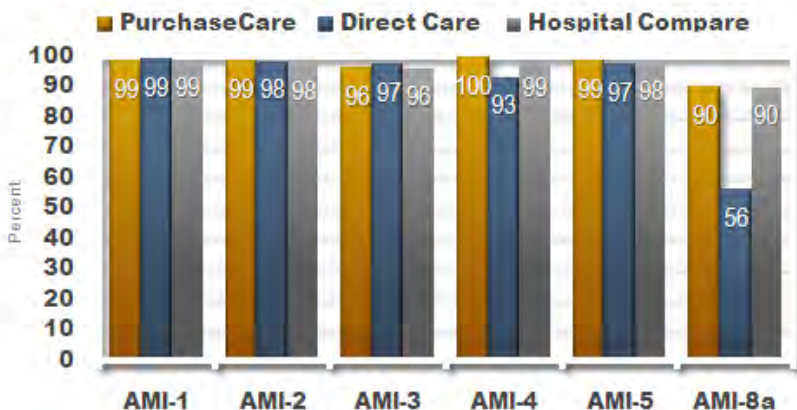


Figure 3-2: Acute Myocardial Infarction Measures

Acute Myocardial Infarction Core Measures

- AMI – 1 Aspirin on Arrival
- AMI – 2 Aspirin Prescribed at Discharge
- AMI – 3 Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blockers (ARB) for Left Ventricular Systolic Dysfunction (LVSD)
- AMI – 4 Adult Smoking Cessation Advice/ Counseling
- AMI – 5 Beta-Blocker at Discharge
- AMI – 8a Percutaneous Coronary Intervention (PCI) within 90 Minutes of Arrival

Heart Failure (HF)

With heart failure, the body doesn't get enough oxygen and nutrients to meet its needs. As the heart tries to pump more blood, the muscle walls become



weaker over time. This scenario often results in hospitalization and sometimes death.

MHS collected data on four Heart Failure process measures, illustrated in Figure 3-3, shows MHS's performance rates were comparable to the national rates except for HF-1 and HF-4 in the DC system. Performance in the DC system continues to improve as demonstrated in Figure 3-1. With continued advancements and increased utilization in the electronic medical records, the DC HF measures show an upward trend in performance.

Heart Failure (HF) Measures: Comparison of MHS PC & DC to National Hospital Compare Rates (July 2009-June 2010)

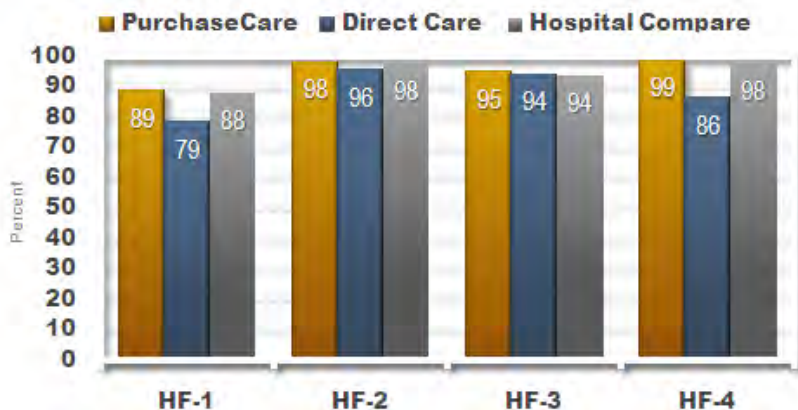


Figure 3-3: Heart Failure Measures

Heart Failure Core Measures

- HF – 1 Discharge Instructions
- HF – 2 Evaluation of Left Ventricular Systolic Assessment
- HF – 3 Angiotensin Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blockers (ARB) for Left Ventricular Systolic Dysfunction (LVSD)
- HF – 4 Adult Smoking Cessation Advice/ Counseling

Pneumonia (PN)

Pneumonia is caused by a viral or bacterial infection that fills the patient's lungs with mucus, thus lowering the oxygen level in the blood.



Pneumonia(PN) Measures: Comparison of MHS PC & DC to National Hospital Compare Rates (July 2009-June 2010)

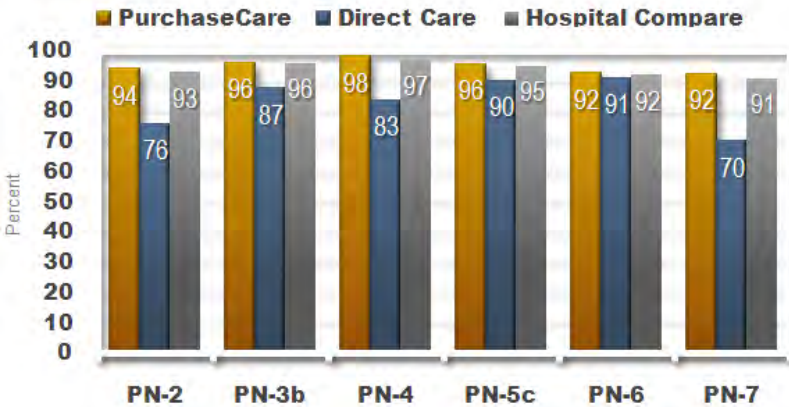


Figure 3-4: Pneumonia Core Measures

Figure 3-4 shows MHS's performance rates exceeded or were similar to national rates in five of six metrics. The PC network hospitals exceeded national rates for all measures. As shown in Figure 3-1, performance in the DC system for PN-2, PN-4 and PN-7 has improved over a four year period and continues an upward trend. Efforts to standardize aspects of the inpatient electronic medical record are projected to positively impact performance of these measures.

Pneumonia Core Measures

- PN – 2 Pneumococcal Vaccination
- PN – 3b Blood Cultures in Emergency Department Prior to Antibiotic
- PN – 4 Adult Smoking Cessation Advice/ Counseling
- PN – 5c Initial Antibiotic Received Within six Hours of Hospital Arrival
- PN – 6 Most Appropriate Initial Antibiotic(s)
- PN – 7 Influenza Vaccination

Surgical Care Improvement Project (SCIP)

One way hospitals improve surgical care and reduce the risk of wound infection after surgery is by providing the right medicines at the right time on the day of surgery.



Figure 3-5 presents five SCIP measures that the MHS collected in FY 2010. Of these, two new measures were added, SCIP 4 and SCIP 6. MHS performance overall is comparable to National

Hospital Compare rates and continues on an upward trend. The PC network exceeded the National Hospital Compare rates for four of the measures.

Surgical Care Improvement Project: Comparison of MHS PC & DC to National Hospital Compare Rates (July 2009-June 2010)

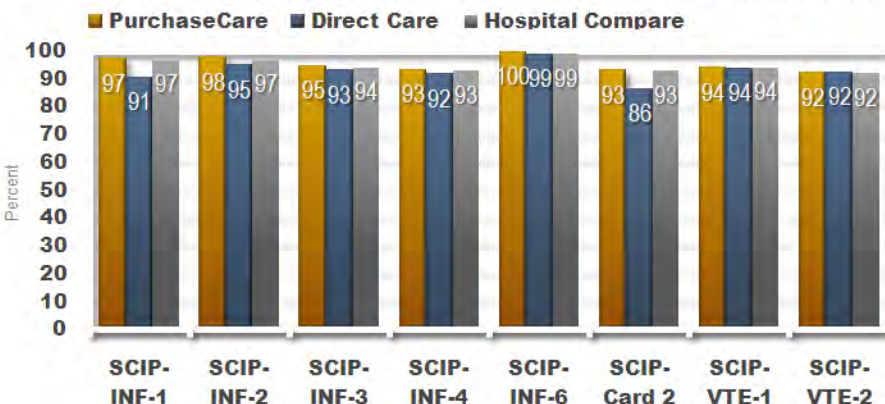


Figure 3-5: Surgical Care Improvement Project Measures

Surgical Care Improvement Project Core Measures

- SCIP – 1 Prophylactic Antibiotic Received Within One Hour of Incision
- SCIP – 2 Appropriate Prophylactic Antibiotic Selection
- SCIP – 3 Prophylactic Antibiotics Discontinued within 24 Hours After Surgery
- SCIP – 4 Cardiac Surgery Patients With Controlled 6 AM Blood Glucose
- SCIP – 6 Appropriate Hair Removal
- SCIP – Card 2 Prophylactic beta blocker given during perioperative period (Surgery Patients on Beta-Blockers)
- SCIP – VTE-1 Recommended Venous Thromboembolism (VTE) Prophylaxis Ordered
- SCIP – VTE-2 Recommended Venous Thromboembolism (VTE) Prophylaxis Received

Children's Asthma Care (CAC)

Asthma is a chronic lung condition that causes problems getting air in and out of the lungs. It is the most common chronic disease in children and a major cause of morbidity and health care costs nationally. Asthma is also one of the most frequent reasons for a child's admission to a hospital.



Asthma care for Children: Comparison of MHS PC & DC to National Hospital Compare Rates (July 2009-June 2010)

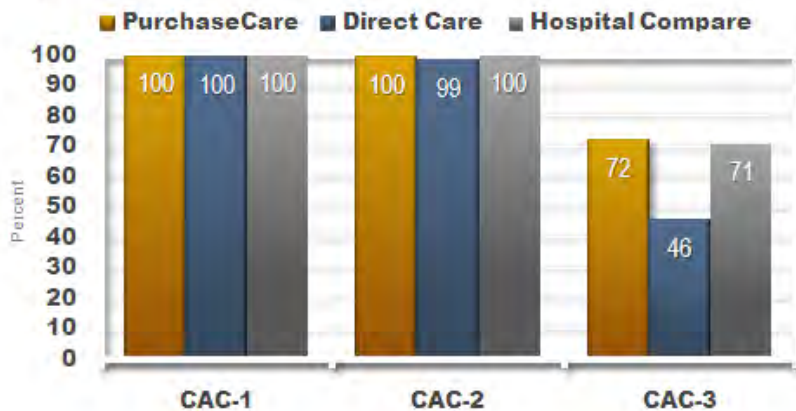


Figure 3-6: Asthma Care for Children (CAC) Measures

The MHS collected data on three metrics that examine the quality of asthma care for children. National guidelines for treating children with asthma in the hospital recommend using a reliever medication and a systemic corticosteroid medication in the severe phase and gradually cutting down the dosage of medications to provide control of the asthma symptoms. MHS compliance is near 100 percent for CAC-1 and CAC-2 measures. CAC-3 in the DC is substantially lower than the PC and Hospital Compare rates (Figure 3-6). The measure requires documentation of five separate elements in the home management plan. As shown in Figure 3-1, performance on CAC-3 has improved since 2009. Chart reviews conclude the home management plan does not always include each of the five required elements. The low rate of this measure is being evaluated as to cause and it may be more an issue of documentation than not providing the home management plan required. Standardized templates are being assessed to improve performance.

Children's Asthma Care (CAC) Core Measures

- CAC – 1 Reliever Medication Prescribed for Inpatient Asthma
- CAC – 2 Systemic Corticosteroid Medication Prescribed for Inpatient Asthma
- CAC – 3 Home Management Plan Documented

Pregnancy

Obstetrical patients and their families, the largest group of beneficiaries in the MHS, active duty, spouses or dependants, expect our MTFs to be outcome driven. Their confidence levels in the MTFs are reflected by delivery rates continuing to grow, with a 0.5 percent increase in delivery volumes from 2006 to 2010.



The MHS contracts with the National Perinatal Information Center (NPIC) to provide data from MTFs and Purchased Care pregnancy data bases. NPIC provides national benchmarks for information related to services, frequencies, outcomes and metrics for comparison. The data allows TRICARE to share data specific to each MTF and globally as a service. The data is compared on the teaching, non-teaching, OCONUS and Specialty MTFs level with civilian benchmarks. Pregnancy outcomes in the MHS continue to lead the private sector in many ways. Though cesarean section rates have increased

nation-wide at an alarming rate, up to 33 percent based on the Center for Disease Controls Report (NHCS Data Brief.35.March 2010) the cesarean section rate in the MTFs have risen only 0.5 percent, (2007-2010) well below the national benchmark.

Induction of labor rates have doubled since 1990 (Academy of Obstetrics and Gynecology Issues Revision of Labor Guidelines, July 2009) to roughly 22 percent. The MTF induction rate has increased well below the national average (2007-2010 + 1.3 percent).

As the MHS focus on wellness continues, the Perinatal Core measures new in 2010, from the Joint Commission, are focused on monitoring outcomes related to health and wellness in the mothers and infants being cared for.

Pregnancy Core Measures

- PC-01 Patients with elective vaginal deliveries or elective cesarean sections at or equal to 37 weeks and less than 39 weeks of gestation completed.

- PC-02 Nulliparous women with a term, singleton baby in vertex position delivered by cesarean section.
- PC-03 Patients at risk for preterm delivery at 24-32 weeks gestation receiving antenatal steroids prior to delivering preterm newborns.
- PC-04 Staphylococcal and gram negative septicemia in high risk newborns.
- PC-05 Exclusive breast feeding during the newborns entire hospital stay.

Outpatient and Preventive Care Measures HEDIS®

The National Committee for Quality Assurance (NCQA) developed HEDIS® to provide reliable, comparative health plan data about clinical quality. The MHS Population Health Portal (MHSPHP) uses methodologies comparable to HEDIS® to capture the performance of the system’s preventive care and disease management programs (Figure 3-7). These outpatient process-of-care measures are also collected for beneficiaries enrolled to purchased care network providers.

the calculations for the measures. This occurs when beneficiaries have other health care insurance which, by law, is the primary payer or the patient decides to self pay for services provided. The MHSPHP uses a historical data file that documents beneficiary status, including which female beneficiaries have had a past hysterectomy or mastectomy procedure and should not be counted in the denominator. Consequently, while these beneficiaries would be included in the denominator for the measure, if there were no claim on historical data file, they would not be included in the numerator and the rates for some PC metrics would appear lower.

TRICARE Management Activity and the managed care support contractors and their network providers continue to enhance the mechanisms to assess and improve the services provided. In FY 2010 advancements to the MHS Population Health Portal allowed visibility of HEDIS® data to the MCSC. Data for 2008-2010 can now be accessed for validation and analysis. The new TRICARE Managed Care Support contracts include incentives for improvement on seven clinical measures. An NCQA certified HEDIS® auditor will conduct baseline and ongoing audits to provide assurance that the numbers reported are accurate based on available data and current HEDIS® methodology.

The following clinical performance data and analysis demonstrate DoD commitment to utilizing nationally recognized clinical performance measures. One should also note, the values associated with HEDIS® compliance between the 10th and 90th percentiles may fall within a narrow range. For example, a rate of <74.2 percent of eligible patients screened for breast cancer (ages 42-69) falls at the 50th percentile but 78.7 percent screened is at the 90th percentile for HEDIS® compliance. In this illustration, the compliance level moves significantly from 50 percent to 90 percent, with a difference of only 3.8 percent in screening.

Outpatient & Preventive Care Measures Based on HEDIS® Methodology

- **Cervical cancer screening rates (Pap tests);**
- **Breast cancer screening rates (mammography);**
- **Colorectal cancer screening;**
- **Use of appropriate medications for people with asthma; and**
- **Diabetes care (HbA1c testing and control, retinal exams, low-density lipoprotein screening and control).**

Figure 3-7: Outpatient and Preventive Care Measures Based on HEDIS® Methodology for these clinical performance metrics were gathered from an MHS electronic central database that includes inpatient, outpatient and pharmacy information. Reports on the clinical performance measures are provided to MHS leadership to assess the performance of health care delivered across the system. Actionable information permits providers to deliver timely, evidence-based medical services.

The data utilized to calculate the HEDIS® measures for the MHS PC networks is based on administrative files of healthcare claims paid for by TRICARE. Though this methodology is aligned with the NCQA specifications, there are some limitations. In situations where the beneficiary does not file a claim with TRICARE for care provided, there would be no way for the MHSPHP to identify or incorporate this information into



Cervical Cancer Screening

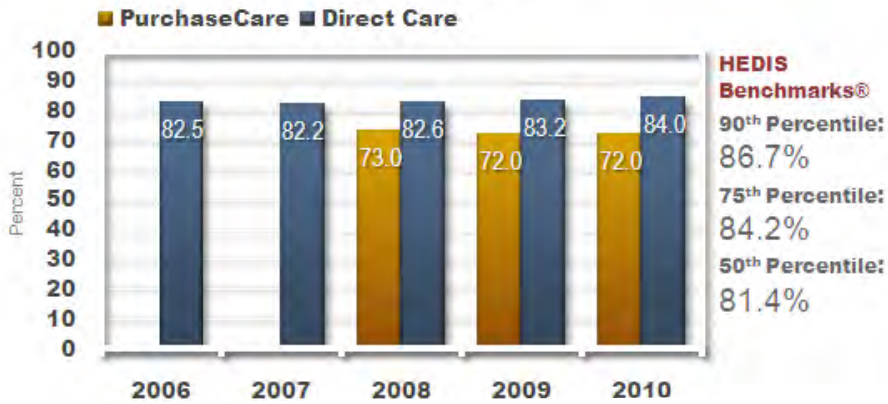


Figure 3-8: Direct Care Cervical Cancer Screening (FY 2005-2009) from HEDIS® 50th-75th-90th Percentiles: National Committee for Quality Assurance (NCQA), State of Health Care Quality, 2009

As shown in Figure 3-8, the 2010 Cervical Cancer Screening in the DC system is 84.0 percent, an increase from 2009, and within 0.2 percentage point of moving into the 75th percentile. PC data was made visible FY2010. PC is substantially lower than DC rates. The low rate of this measure is being evaluated as to cause and it may be an issue with filing claims which affects the outcomes.

Breast Cancer Screening

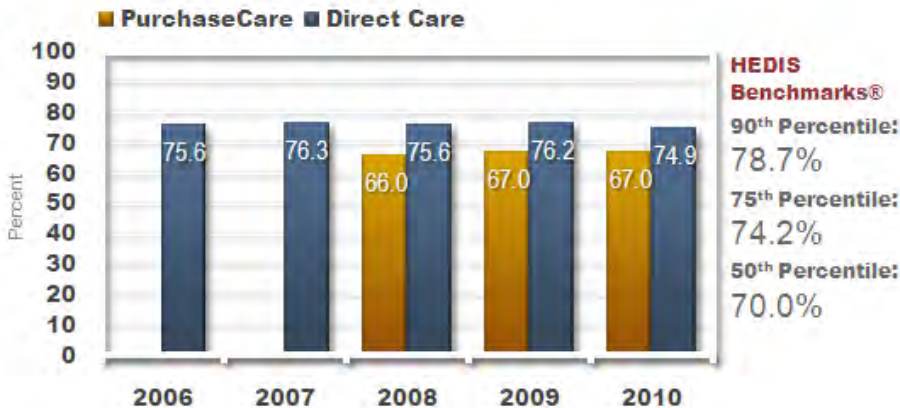


Figure 3-9: Direct Care Breast Cancer Screening (FY 2006 –2010) from HEDIS® 50th-75th-90th Percentiles: National Committee for Quality Assurance (NCQA), State of Health Care Quality, 2009 *Beginning in 2009, HEDIS® now reports a single rate for women 42-69 years of age for breast cancer screening.

In Figure 3-9, the DC Breast Cancer Screening rate at the HEDIS® 75th percentile at 74.9 percent, which is an incremental decrease from 2009. PC data was made visible in FY 2010. PC had an incremental improvement from 2009. This continues to be an area to focus on for improvement.

Colorectal Cancer Screening

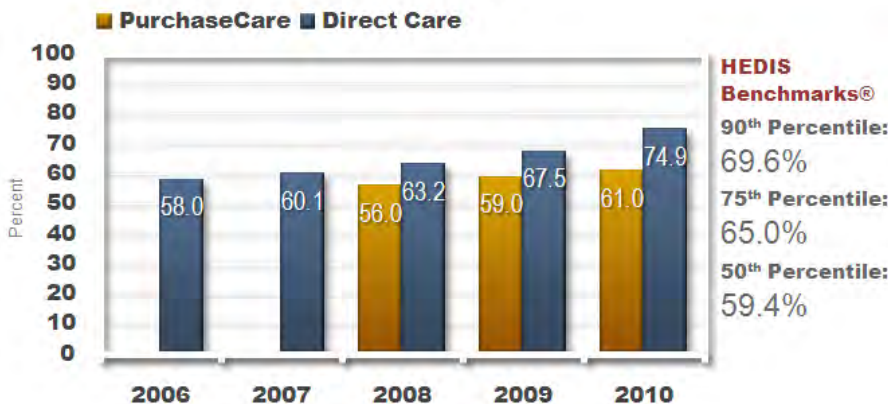


Figure 3-10: Direct Care Colorectal Cancer Screening (FY 2005-2010) from HEDIS® 50th-75th-90th Percentiles: National Committee for Quality Assurance (NCQA), State of Health Care Quality, 2010. The colorectal measure for DC is 74.9 percent, an improvement from 2009. It is now in the 90th percentile.

As shown in Figure 3-10, the Colorectal Cancer Screening rate in the DC is 74.9 percent, an improvement from 2009. It falls now in the 90th percentile. PC system improved two percentage points from 2009.

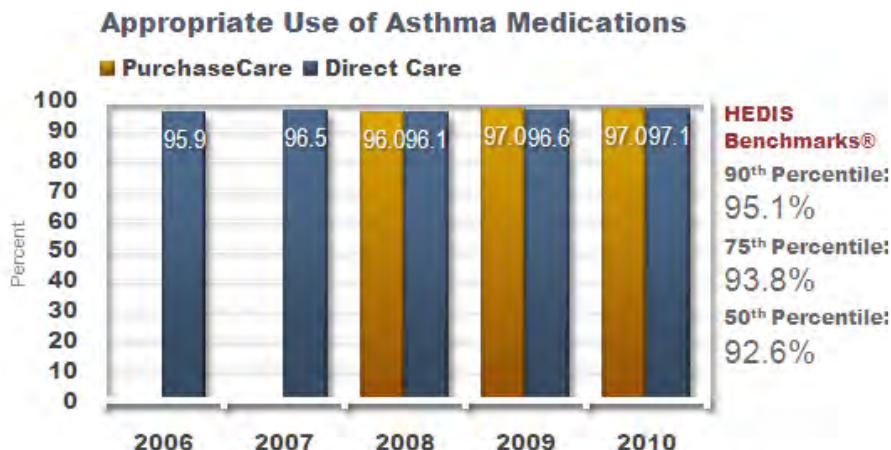


Figure 3-11: Direct Care Appropriate Use of Asthma Medications (FY 2006-2010) from HEDIS® 50th-75th-90th Percentiles: National Committee for Quality Assurance (NCQA), State of Health Care Quality, 2010.

In Figure 3-11, Use of Asthma Medications in the DC and PC exceeds the HEDIS® 90th percentile. This measure continues to show improvement from 2009.

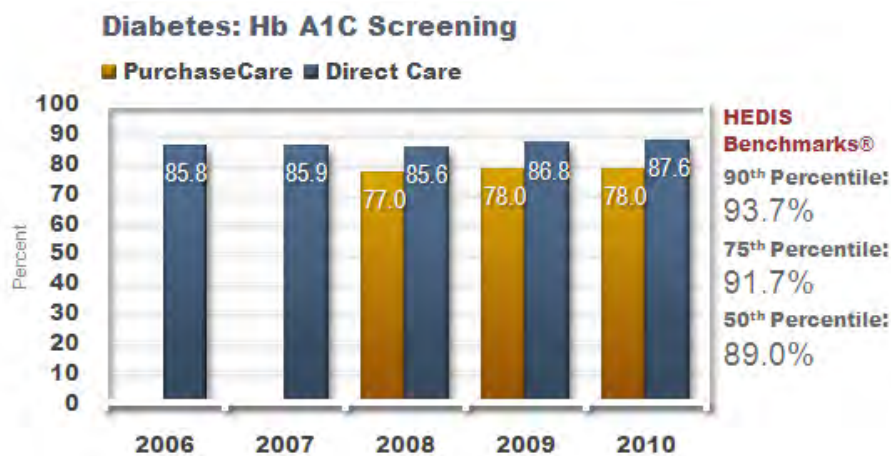


Figure 3-12: Direct Care Diabetes Hb A1C Screenings (FY 2005-2010) from HEDIS® 50th-75th-90th Percentiles: National Committee for Quality Assurance (NCQA), State of Health Care Quality, 2010.

Figure 3-12 shows the 2009 Annual Diabetes HbA1c screening for the DC and PC are below the 50th percentile. The DC percentile improved from 2009 but continues to be an area to focus on for improvement.

MHS SPECIAL STUDIES & QUALITY IMPROVEMENT INITIATIVES

The Military Health System Clinical Quality Management (MHS CQM) is part of an overall TMA strategy to become a provider of world-class health care. MHS CQM collects, manages, and reports DoD's performance measures and accreditation requirements, including Joint Commission ORYX® and the MHS Balanced Scorecard data. MHS CQM and the MCSC also conduct clinical studies that evaluate specific outcomes across the MHS and utilize private sector comparable data when available. DoD leadership and health care providers use these independent, impartial analyses of the MHS clinical data to evaluate policy and practice in the MHS.

The MHS CQM education program translates these research findings and recommendations

into solutions that may be applied to clinical practices. Free online continuing medical education (CME) and continuing nursing education credits (CNE) are given to participants through a partnership with the Uniformed Services University of the Health Sciences (USUHS). These online educational activities are available to policy makers and health care professionals at every level of the MHS. In addition, MHS CQM provides consultative site visits to military in-patient and ambulatory facilities to help organizations use their external data, (i.e., Joint Commission ORYX® and the Special Studies) for performance improvement initiatives.

MHS CQM 2010 Special Studies

The following FY 2010 studies were conducted



as part of the overall initiative of MHS CQM External Review of Care Scientific Advisory Panel (SAP).

Study Title: Sleep Apnea & MHS Beneficiaries: Demographics, Diagnosis, Treatment & Follow-Up.

Background: The Centers for Disease Control and Prevention states that “sufficient sleep is increasingly being recognized as an essential aspect of health promotion and chronic disease prevention in the public health community.” A prevalent sleep disorder that impacts millions of Americans is sleep apnea, a condition in which there are abnormal pauses in breathing during sleep. Approximately 12 million adults in the United States have the disorder, with more than 50 percent being overweight, making it one of the leading chronic respiratory diseases in the country.

Methods: This study focused on MHS beneficiaries with an FY 2008 outpatient encounter record containing an International Classification of Diseases, Ninth Revision, Clinical Modification diagnosis code for sleep apnea, and no history of sleep apnea in the previous two years. The overall population was characterized from administrative records data. Medical records for a random sample of the beneficiaries diagnosed in the direct care system (DCS) and who also had a sleep study performed in the DCS or the network were abstracted for sleep study results and clinical values such as blood pressure and body mass index.

Results: Among the 8,380,419 beneficiaries who received outpatient care throughout the MHS during FY 2008, a period prevalence of 2.6 percent was found for sleep apnea. Newly diagnosed sleep apnea patients tended to be male (64.6 percent), retired (38.5 percent), and approximately 53 years of age. Among beneficiaries who received a sleep study, the majority (82.8 percent) had a positive result, confirming the diagnosis. Administrative record documentation of a follow-up visit within 12 months for sleep apnea patients with continuous positive airway pressure (CPAP) machine therapy was limited. These findings may be related to the short comings of the use of administrative data.

Conclusions: Among newly diagnosed DCS sleep apnea patients, the vast majority who were referred and received a sleep study had results confirming the clinical diagnosis. Most patients receiving CPAP machines had no clear administrative record documentation of timely follow-up.

Study Title: Evaluating Improvement in Patients Seen in Military Treatment Facility Pain Management Clinics.

Background: Chronic pain is a particularly important health issue in military and veteran populations. This study drew perspective from the Guidelines for Chronic Pain Management, recently updated by the American Society of Anesthesiologists (ASA) Task Force on Chronic Pain Management and the American Society of Regional Anesthesia and Pain Medicine, and from the Health Care Guideline: Assessment and Management of Chronic Pain by the Institute for Clinical Systems Improvement (ICSI).

Methods: A retrospective cohort study of chronic pain patients newly referred to MTF pain management clinics during the first six months of FY 2009 was conducted. Administrative claims data and medical records information were randomly sampled to retain proportional representation by clinic and pain diagnosis. A sample of nociceptive and neuropathic pain patients with pain scores at baseline and at least one follow-up visit were used to compute change in pain. Cox proportional hazard models were used to determine factors associated with improvement in pain. Care processes for these pain patients were also characterized.

Results: A total 5,328 chronic pain patients with a new episode of care in a MTF pain management clinic were identified. The mean age was 37.3 years, 71.1 percent were male, and 77.3 percent were active duty. A sample of 2,122 records was reviewed, of which 1,223 had all necessary data elements for further analyses. Overall, neuropathic pain patients were slightly more likely to improve than patients with nociceptive pain (38.3 percent v. 34.5 percent). Beneficiaries with neuropathic pain were more likely to improve over a shorter time, but after

240 days improvement rates were the same in the two groups. Many clinical records lacked documentation of functional status, psychological history, personal goals or other pertinent factors for holistic pain management. **Conclusions:** Pain type was the only significant predictor of improvement. Infrequent documentation of contributing factors needed for a more holistic approach to chronic pain management suggests an opportunity for improvement.

Study Title: Department of Defense Intensive Care Units: Influence of Organizational Structure on Patient Outcomes.

Background: There are three primary ICU models in the United States: open, closed, and transitional. Regardless of ICU model, sequential organ failure (SOFA) scores have been shown to predict ICU outcomes. This study included 33 Intensive Care Units (ICUs) defined as Medical Intensive Care Units (MICUs) and/or Surgical Intensive Care Units (SICUs), located at DoD MTFs representing all three model types.

Methods: The study population included all discharges between 1 October and 31 December 2009 that included an ICU stay of at least 24 hours. The population was identified using the MHS MDR SIDR data through the identification of MEPRS codes that indicated a stay in one or more ICUs during a hospitalization. Administrative records were

examined for diagnoses, mortality, acquired infections, and readmission after discharge. ICUs were polled as to operational model. Clinical records were abstracted for SOFA data. For patients with available SOFA scores, multiple logistic regression models were used to examine the relationship between SOFA scores and mortality, length of stay, and readmission.

Results: The majority (76 percent) of 4,936 ICU admissions was to MICUs, and 52 percent of all admissions were to an open model ICU. The most prevalent principal diagnostic category among ICU admissions was diseases of the circulatory system (22 percent). Overall, 22.1 percent of patients were readmitted within 30 days after a hospitalization discharge that included an ICU admission. Closed model MICUs had the highest crude mortality rates (3.8 percent) post discharge. While most records had insufficient clinical data to calculate a SOFA score, higher SOFA scores were significantly associated with in-hospital mortality and longer ICU LOS, but fewer readmissions within 30 days. The incidence of acquired infections was extremely low.

Conclusions: The majority of DoD ICU stays occurred in MICUs and open model ICUs were the most common type. Lack of SOFA score documentation may hinder development of accurate patient prognoses and related delivery of care.

PURCHASED CARE 2010 QUALITY IMPROVEMENT ACTIVITIES

All of the purchased care contractors continued their URAC or National Committee for Quality Assurance accreditations 2010. The majority of contractors have URAC accreditations for health network, utilization management, case management and disease management. All of these accreditations require compliance with CORE quality standards. Brighton Marine has maintained their NCQA accreditation as part of the TUFTS health plan. Facilities that participate in provider networks are required to have accreditations by The Joint Commission (TJC) or Healthcare Facilities Accreditation Program (HFAP) and to be participating providers with CMS.

The PC MCSC also conducted a variety of quality improvement initiatives, projects and studies in 2010. In some cases, the studies were conducted over multiple years and measured the effectiveness of interventions. Some of these initiatives were identified through review of regional or contractor performance on TJC ORYX® core measure sets or their HEDIS® compliance.

The following is a representative list of some of these activities :

- Appropriate Use of Antibiotics In Accordance with the Surgical Care Improvement Project Core Measure Set
- Appropriate Use of Antibiotics for Community Acquired Pneumonia in

- Accordance with the Pneumonia Core Measure Set
- Improvement in the Rate of Administration of Human Papilloma Virus (HPV) Vaccination
- Use of Appropriate Medications for People with Asthma Monitoring
- Identification of Barriers to Compliance With Cancer Screenings Through Health Net Case Management and Disease Management Queries
- Assessment of the Effectiveness of Medication Reconciliation Processes at Transition from Hospital to Home
- Flu Shot Initiative QIP
- HbA1c Testing QIP
- Antidepressant Medication Management QIP
- Improving Mental Health Assessment Post-ICU QIP
- Increased Case Management for Beneficiaries With Complex Needs QIP
- Smoking Cessation for Active Disease Management Participants QIP
- Colorectal Cancer Clinical Study
- Coumadin/Warfarin Monitoring QI initiative
- Transition of Care QIP
- Disease Management Guided Care Initiative
- My Med List” Initiative
- SironaHealth Nurse Advice Line enhancements
- Comprehensive Diabetic Care QIP
- Preventive Cancer Screening Quality Improvement Initiative
- Surgical Infection Prevention Study
- Follow-up for After Hour Calls to Case Management QIP
- Diabetic Retinal Examinations QIP
- Improvement of Medical Necessity Reviews for MRI of Spine QIP
- Study on the Diagnosis and Management of ADHD in Children by Primary Care Managers
- Retrospective Review of Acute Medical/ Surgical Inpatient Admissions

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MHS
POPULATION
HEALTH

Population Health (PH) is devoted to the maintenance and enhancement of the health of the Military Health System (MHS) population, using available resources in the most efficient and effective way possible. Population Health Improvement (PHI) provides a balance of activities promoting awareness, education, prevention and intervention, all designed to improve the health of a specified population. This model connects medical interventions to individual military treatment facilities (MTFs), work sites and community-based wellness and prevention activities to improve overall health and reduce morbidity and premature mortality in the MHS population.

IV



POPULATION HEALTH
& MHS MEDICAL MANAGEMENT



The MHS PH initiatives focus on reducing the risk of disease and injury on the personal level by specifically encouraging healthy behaviors and enhancing physical fitness. While health care providers continue to render necessary care, the range of treatment options can be standardized and measurable improvements can be achieved in performance and health status. In 2010, these initiatives included projects that continued to address the issues of tobacco use, alcohol abuse and obesity.

HEALTH PROGRAMS OVERVIEW

DoD developed and implemented a series of demonstration and pilot projects to address key health behaviors that were identified in the *2005 Survey of Health-Related Behaviors* and are associated with increased morbidity and preventable death.

“Healthy Choices for Life” initiatives are

evidence-based projects that address the increase in tobacco use, obesity and alcohol misuse and abuse among TRICARE beneficiaries. These projects focused primarily on activities promoting healthy behaviors and disease prevention as well as field testing the effectiveness of comprehensive benefits not currently covered by TRICARE.

TOBACCO CESSATION MARKETING & EDUCATION CAMPAIGN

In response to increased tobacco use among junior Active Duty (AD) military personnel, DoD implemented an education campaign aimed at helping AD military personnel quit tobacco and lead healthier lives.

Despite decades of effort to reduce tobacco use in military populations, tobacco use remains firmly entrenched, with Defense Manpower Data Center (DMDC) data showing that a significant segment of the military population use tobacco, with new smokers and tobacco chewers starting daily. As measured by the 2008 DoD Survey of Health-Related Behaviors, the prevalence of smoking among 18 to 25 year-olds on AD was 38 percent, as compared to 30.5 percent for members of the armed services overall. Also of concern is the fact that many personnel initiate tobacco use after entering the armed services.

E4 personnel who are 18 to 24 years old. The campaign is designed to motivate tobacco users who want to quit to actually formulate and implement a quit plan. This plan is based on the social marketing model of Prochaska and DiClemente’s Transtheoretical Health Behavior Stages of Change. The campaign theme, materials and approach are based on formative research with the target audience, which found:

- Adverse performance effects of tobacco are not appreciated or understood;
- Tobacco use is perceived as normal and is supported by military culture; and
- Top-down health and readiness messages did not resonate as much as service members’ pride in their uniforms, recognition of their status as role models, and the emphasis on quitting tobacco for a loved one.

Resources and Outreach: This campaign is funded by Defense Health Plan POM FY 2010-FY 2015 but is dependent on local program managers to get their message to the target audience. The campaign’s award-winning Web site, www.ucanquit2.org, had 380,496 visitors in FY 2010 (78 percent unique, and a 42 percent increase in unique visits compared to FY 2009). The Web site features Train2Quit, an interactive and customizable online cessation tool; 24/7 access to real-time live help with expert cessation coaches; interactive information, games and videos; a message board for peer-to-peer support; and a savings calculator. Other personalized tools include a calendar, customizable quit plan, the ability to create a blog under the My Quit Space section, and



The Defense Manpower Data Center (DMDC)
The DMDC conducts annual surveys, both Web-based and pencil-and-paper, to support the personnel information needs of the Under Secretary of Defense for Personnel and Readiness. These surveys assess the attitudes and opinions of the entire DoD community on a wide range of issues.

Background: The TRICARE Management Activity (TMA) launched “Quit Tobacco — Make Everyone Proud” in January 2007. The goals of the campaign are to increase awareness of the negative social and physical effects of tobacco and decrease its use and acceptance in the military work environment. The campaign is aimed at military personnel with the highest rates of tobacco usage in the military — E1-

Figure 4-1: Duties of the DMDC



Figure 4-2: Downloadable interactive tools and print materials on www.ucanquit2.org

a subscription to text message support. The campaign has successfully fulfilled over 1,000 orders, providing campaign materials to more than 500 points of contact at more than 200 active-duty installations and more than 130 Guard, Reserve, and Coast Guard installations, as well as VA hospitals. More than 640,000 centrally funded campaign promotional materials have been distributed. The campaign also provides news releases, drop-in articles, service-specific posters, postcards, fact sheets, print, radio and video public service announcements (PSAs), and DVDs for use in tobacco cessation classes and for distribution to local media. Sixty-five percent of targeted installation newspapers (with a combined circulation of 550,000) regularly use news releases or articles, and 80 percent of targeted radio stations have reported using the audio PSAs.

Awards: The campaign has earned 13 awards, beginning in 2008. In 2010, the campaign Web site received the Aesculapius Award of Excellence again, as well as the eHealth Leadership Awards (Platinum Level) for Best Overall Internet Site and the MarCom Award (Gold Level) for Best Web site Overall. During 2009, this campaign received the Horizon Interactive Award (Gold Level), the Interactive Media Outstanding Achievement Award, the Web Marketing Association's Outstanding Web Award, the W3 Award (Silver Level), the Web Health Award (Silver Level), and the Health Improvement

Institute's Aesculapius Award of Excellence.

Impact: This campaign continues to struggle to pierce the consciousness of the target audience as measured by campaign brand awareness in the annual Status of Forces surveys performed by the DMDC. Results of the recently released 2008 DoD Health-Related Behaviors (HRB) Survey of Active Duty Forces, however, found that 26 percent of respondents on installations with high campaign visibility reported seriously thinking of quitting smoking in the next 30 days compared to six percent from other installations.

Marketing and outreach strategies included leadership briefings, partnership development and outreach, Web marketing and promotion, including public relations and advertising, and collateral materials distribution. The campaign encourages its audience to visit www.ucanquit2.org, to use Web-based cessation support, resources, and education tools.

The key elements of the tobacco cessation project, "Tobacco Free Me," which ran from May 2006 to September 2008, established the framework for the TRICARE Smoking Cessation Program. The 2009 John Warner National Defense Authorization Act (NDAA) further directed the main components of the program to include availability of no-cost, smoking cessation pharmaceuticals (including nicotine replacement products), behavioral counseling, access to a toll-free 24/7 quit line, printed and Web-based cessation materials, and refunds of co-payments to non-Medicare eligible beneficiaries.

WEIGHT MANAGEMENT

Background: Obesity is one of the leading causes of preventable death in the United States. According to the 2008 DoD HRB, 60.2 percent of all service personnel were classified as overweight based on a body mass index (BMI) of 25 or higher. Of those, 12.6 were considered obese (BMI > 30). The Health Care Survey of DoD Beneficiaries conducted in January 2005, which specifically addressed overweight issues found that nearly two-thirds of all MHS beneficiaries were overweight (41 percent) or obese (22 percent) as measured by their BMI.

Childhood obesity is epidemic in the US and is also a problem for children of military personnel. The 2009 Child Health Care Survey of DoD Beneficiaries showed that approximately 31

percent of children with in the MHS system were reported to be overweight or obese.

Resources and Outreach: To address the issue of overweight and obesity in military personnel and other TRICARE beneficiaries, several initiatives are underway. The Weight Management Working Group, which includes TMA and Service representation, began regrouping with the goal to evaluate the programs that are in place within each Service and TRICARE.

With the launch of, First Lady, Michelle Obama's "Let's Move" campaign and the release of the White House's Task Force on Childhood Obesity's report, "Solving the Problem of Childhood Obesity Within a Generation" in

the Spring of 2010, putting in place measures to prevent and decrease childhood obesity have become a priority. In August 2010, the White House directed the Department of Defense to form a department-wide working group on childhood obesity to be co-chaired by representatives from Military Community and Family Policy and Health Affairs. This newly formed group, which has representation from TMA, the Services, Defense Commissary Agency (DeCA), Department of Defense Education Activity (DoDEA), and other areas of the DoD, will form into subcommittees to address specific issues brought forth in a White

House memorandum from the First Lady's office. These efforts will be in areas that impact children and families, such as schools, child care centers, commissaries and exchanges, recreation centers, and the MHS.

Additionally, TMA Get Fit website (<http://www.tricare.mil/getfit/>) is in the process of being redesigned. It has resources and links to other websites that promote physical activity, good nutrition, and healthy lifestyles, such as the First Lady's "Let's Move" campaign and the USDA's My Pyramid Web site and in the future will have additional resources and information.

ALCOHOL EDUCATION



Figure 4-3: www.thatguy.org

Background: TMA launched "THAT GUY" in December 2006 as an integrated marketing campaign targeting military enlisted personnel of ages 18 to 24 across all branches of service. Solidly based in research and social marketing, the campaign uses a multi-media, peer-to-peer social marketing approach to raise awareness of the negative short-term social consequences of excessive drinking in this age group, thereby promoting peer disapproval of excessive drinking and leading to reductions in binge drinking. This campaign includes an award-winning Web site, www.thatguy.com, as well as online and offline public service announcements, paid and pro bono billboard and print advertising, a turnkey implementation plan and schedule for installation project officers, centrally funded promotional materials, and central support of special events.

Resources and Outreach: This campaign is funded by Defense Health Plan POM FY10-15 but is dependent on commanders and local program managers to convey the message to the target audience.

The campaign is now actively deployed around the world to engage with the target audience and highlighted

achievements from 2010 include:

- Seven minutes average time on the Web site for each user;
- Nearly 14,000 fans on Facebook;
- Nearly two million branded materials being used by all Services;
- More than 3,000 POCs engaged across the globe;
- 42 states and 13 different countries have That Guy campaign presence, including: United States, Japan, Germany, Italy, Spain, Turkey, Singapore, Cuba, Guam, South Korea, Saudi Arabia, Honduras, and Iraq;
- Millions reached through Video & radio PSAs broadcast around the world pro bono through AFRTS, AAFES, and community stations;
- Visited more than 35 military installations around the world in five countries and 23 states for more than 215 days on the road;
- That Guy team attended 34 conferences;
- That Guy team exhibited for 172 days;
- Conducted 82 briefings to leadership and at conferences for POCs; and
- Conducted 43 focus groups across all branches of service with 317 members of the young enlisted target audience.

Awards: During 2010, the That Guy campaign won two awards including the Silver Anvil Award of Excellence Public Service, Government category, from the Public Relations Society of America (PRSA), and the Gold Screen Award, eNewsletter category - National Association of Government Communicators (NAGC); in addition, the That Guy campaign was a SABRE Award finalist from the Holmes Report.

Impact: RAISING AWARENESS: There has

Impact of THAT GUY™ on Binge Drinking in the Military

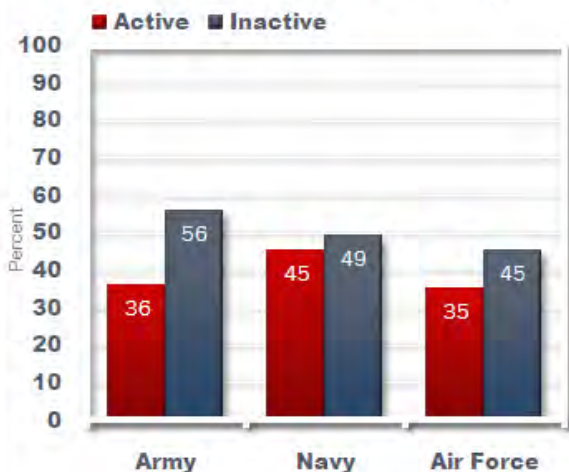


Figure 4-4: Binge drinking among active (implementing THAT GUY™) vs. inactive installations from Fleishman Hillard of the recently released **DMDC Status of Forces Report**, Note: Marine Corps Sample too small to be included

been a steady increase in campaign awareness within the target audience according to Fleishman Hillard’s analysis of the annual Status of Forces surveys performed by the DMDC, rising from “phantom awareness” of three percent in 2006 to 14 percent in 2007, 30 percent in 2008, and 44 percent in 2009. The campaign is active in 550 installations and www.thatguy.com has been viewed by more than one million visitors since its launch in December 2006.

SHIFTING ATTITUDES: Analysis of data by Fleishman Hillard indicates military personnel on installations actively engaged in implementing

That Guy are less likely than personnel from non-engaged installations (21 percent vs. 29 percent) to agree that their peers believe drinking to the point of losing control is acceptable.

REDUCING BINGE DRINKING: Overall, among enlisted aged 17 to 24, self-reported, binge drinking dropped from 51 percent in 2005 to only 46 percent in 2008 (across Army, Air Force, Navy and Marines), according to the 2008 Health Related Behaviors Survey results. What’s more impressive is that the data shows binge drinking rates are lower at installations actively implementing THAT GUY™ (figure 4-4)

HEALTH PROMOTION/ EDUCATION

The managed care support contractors (MCSCs) likewise engaged in a number of health promotion, education and wellness activities to improve population health. Examples include prevention screening reminders, vision screening, blood pressure screening, weight management, and smoking cessation. Outreach is

done by a variety of mechanisms, including plan newsletters, Interactive Voice Response (IVR) callouts, e-mail, individual letters to beneficiaries, birthday cards outlining screening tests that a beneficiary should have in that year, and through the beneficiaries’ primary care providers, clinic nurses or qualified health coaches.



MEDICAL MANAGEMENT

The MHS has developed a Medical Management (MM) model that promotes the integration of utilization, case, and disease management as a hybrid approach to managing patient care. MM is a key process used to improve the clinical quality and business efficiency of health care services

in the MHS. Further, MM includes a shift to evidence-based, outcome-oriented programs that place a greater emphasis on integrating clinical practice guidelines into the MM process, thereby holding the system accountable for patient outcomes

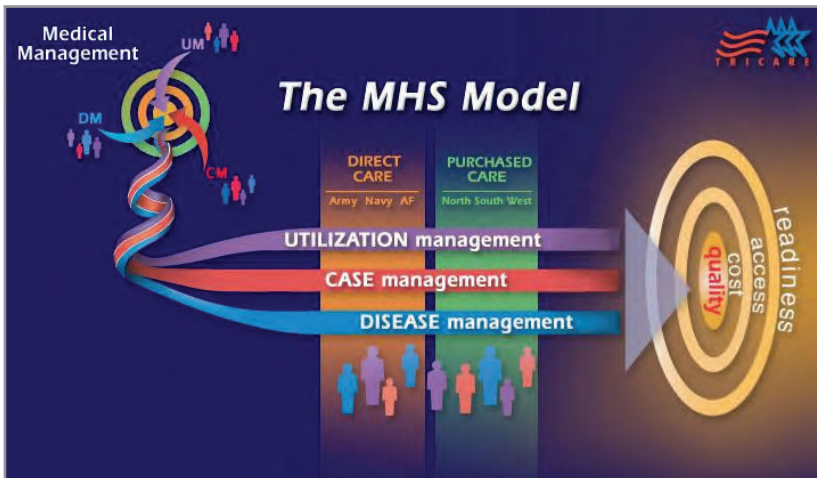


Figure 4-7: Medical Management

The DoD Instruction (DoDI) 6025.20 “Medical Management (MM) Programs in the Direct Care System (DCS) and Remote Areas” is the policy directing MTFs to implement MM. This DoDI establishes the requirements while the companion publication, the TMA Medical Management Guide, contains implementation direction. The MM Guide provides specific how-to guidance for MTF staff in establishing MM programs, including information on outcomes management, resources such as sample forms, Web site links, and tools that can be customized at the local level. All of the MCSC and DPs also ensure comprehensive medical management, utilization management, case management and disease management for their TRICARE enrollees.

UTILIZATION MANAGEMENT

Utilization Management (UM) is an organization-wide, interdisciplinary approach to balancing quality, risk and cost concerns in the provision of patient care. It is the process of evaluating the medical necessity, appropriateness and efficiency of health care services. UM describes proactive procedures, discharge planning, concurrent

planning, precertification, and clinical case appeals. UM also covers processes such as concurrent clinical reviews and appeals introduced by the provider, payer or patient.

The goal of UM is to maintain the quality and efficiency of health care delivery by caring for

patients at the appropriate level of care by coordinating health care benefits, ensuring the least costly but most effective treatment benefit, and the presence of medical necessity. This goal is accomplished by using nationally accepted clinical practice guidelines.

The purpose of UM within the MHS is to identify, monitor, evaluate, and resolve issues that may result in inefficient delivery of care or that may have an impact on resources, services and patient outcomes. UM in the MTFs and in purchased care is accomplished through proactive data analysis, utilization review, case management, and referral management.

CASE MANAGEMENT

Case Management (CM) is defined by DoDI 6025.20 and the DoD Medical Management Guide, version 3.0 (October 2009), as “a collaborative process under the population health continuum which assesses, plans, implements, coordinates, monitors, and evaluates options and services to meet an individual’s health needs through communication and available resources to promote quality cost-effective outcomes.” In the MHS, CM is a key clinical process that supports the provision of seamless continuity of care by coordinating services to meet beneficiaries’ health care needs. Case management reduces fragmentation of care and generates a positive return-on-investment by promoting quality clinical outcomes and avoiding costs for unnecessary health care services.

In May 2007, TMA established three CM focus areas: Policy, Education and Training, and Information Management/Data Capture. These three areas continue to be the primary focus of CM efforts. TMA, Office of the Chief Medical Officer, developed interim policy for implementation of clinical CM in the MHS. In addition, TMA developed CM Web-based and virtual instructor-led training available on the MHS Learn platform. TMA continues working toward acquisition of an enterprise-wide, automated CM tool to help document and track a patient’s individualized care plan. This tool will be used to enhance the provision of CM services to beneficiaries and to support interdisciplinary health team communication across multiple care settings. Finally, TMA, in collaboration with the Joint Services CM Working Group, developed six performance measures designed to evaluate the effectiveness of CM in the MHS.

DISEASE MANAGEMENT

Disease management (DM), as defined in the DoD Medical Management Guide 2009, is “an organized effort aimed at achieving desired health outcomes in populations with prevalent, often chronic diseases for which care practices may be subject to considerable variation.” The goals of DM are to improve health status (clinical outcomes), increase patient and provider satisfaction, and ensure appropriate utilization of resources. The DM focal point is on improving the quality of life for individuals by preventing or minimizing the effects of a disease, usually a chronic condition, through integrative care. The underlying premise is that when the right tools, expertise, and equipment are applied to a population, costs can be minimized in the near term, and/or resources can be provided more efficiently. DM’s focus on chronic conditions is intended to control and slow or arrest their progression rather than cure the disease. Improving the quality of life and activities for daily living are first and foremost in this approach to health care.

The MHS DM program directly supports the MHS strategic goal of Healthy and Resilient Individuals, Families, and Communities by

providing proactive, patient-centered, evidence-based care using clinical practice guidelines (CPGs) and promoting sustained partnerships with our beneficiaries. The DM program currently has two parts: a national demonstration project being conducted through the MCSCs; and individual MTF programs that often work in concert with the nationwide program, but which may go beyond or focus on other disease areas as necessitated by local population requirements. The national MCSCs-implemented DM program targets certain chronic disease patients who have high medical service utilization patterns. This program has shown a positive return on investment.

The MHS implemented a groundbreaking DM initiative in September of 2006 by taking a nationally uniform approach to DM. TRICARE’s approach to disease management is twofold: (1) keep the well healthy with a focus on healthy lifestyles, disease prevention, and health promotion and (2) maintain an active DM program for high-risk beneficiaries with specific chronic disease conditions. This revised uniform approach to DM, provides the MCSCs with risk-stratified patient

lists and formally evaluates appropriate clinical, humanistic, financial, and utilization outcomes across all three regions using national benchmarks.

Currently, the MHS DM program addresses asthma, congestive heart failure (CHF), chronic obstructive pulmonary disease (COPD), and diabetes. Further expansion of outcome measures is targeted to include depression and anxiety disorders, along with cancer screening. The DoD is pursuing necessary regulatory changes to implement DM as a full benefit, in accordance with the John Warner National Defense Authorization Act (NDAA) for Fiscal Year 2007; Section 734: Disease and Chronic Care Management.

The MTFs and the TRICARE networks have also developed several effective DM interventions to address the needs of their specific communities. These interventions include publications and other resources sent to patients, group education classes, telephone care management, web-based information, and CM services as required.

The MTFs and the TRICARE network continue to develop the MHS Disease Management (DM) programs that strive to improve the health status of those individuals with chronic illnesses through interventions to address the needs of their specific communities. These interventions may include any of the following: customized education plans with targeted, needs specific literature; monitoring tools and newsletters sent to patients; group and

individual telephonic education classes and care management; web-based information; and case management services as required. Early program evaluations suggest that the MHS focus on the following activities for refining and improving the DM demonstration program implemented by the MCSCs:

- Participant risk level identification, degree of activation and engagement;
- Intervention strategies;
- Data collection;
- Reporting; and
- Integration and collaboration between the health plans, providers, and MTFs.

Although previous DM demonstration program evaluations indicated improvement in most outcomes, including lowering rates of emergency room visits, inpatient care, and medical costs, with an overall return on investment of \$1.26 per dollar spent on the entire program, it is expected that the savings will flatten with time in its present model. The MHS expects that DM will contribute to the overall coordination and alignment of health services with the trend towards an integrated, patient-centric, physician-directed delivery system. This will be evident as other initiatives, expressly the Patient-Centered Medical Home, are implemented and matures. As a result, the DoD continues to pursue the implementation of a full DM TRICARE benefit with modifications based on lessons learned from the current demonstration program and organizational needs.

PATIENT-CENTERED MEDICAL HOME (PCMH)

Background: The DoD is in the process of transforming its primary care system into a Patient-Centered Medical Home (PCMH) model of care in order to improve healthcare quality, access, care coordination, satisfaction, and safety for the nation's military, retired personnel, and their families. In 2009, the Military Health System (MHS) formally adopted the PCMH model of care and published the ASD(HA) Policy Memorandum "Implementation of the 'Patient-Centered Medical Home' Model of Primary Care in Military Treatment Facilities (MTFs)." This policy directs the implementation of the PCMH as a comprehensive and coordinated primary care model, identifies outcome performance measures and encourages MTFs to develop innovative patient-centered and access-focused approaches. The PCMH policy is to be used in conjunction with the ASD(HA) Policies 06-007 and 07-009. ASD(HA) Policy 06-

007 TRICARE Policy for Access to Care and PRIME Standard Area Standards, identifies access to care standards for PRIME and Standard Beneficiaries. Specific requirements discuss access to care for emergency, urgent (acute), routine, wellness/health promotion and referral appointments; it also establishes standards for office wait times, referrals and authorizations as well as identifies beneficiary category priorities for access. ASD(HA) Policy 07-009 Access to Primary Care Managers at Military Treatment Facilities, identifies the beneficiaries' right to choose a PC Manager (PCM) and establishes requirements to ensure MTF access standards are the same as those required of the Managed Care Support Contractors, through whom healthcare in the private sector is arranged for beneficiaries. In addition, the policy states that all TRICARE Prime Beneficiaries shall have access to their PCM or designated representative by telephone

24 hours a day, seven days a week. At the DoD level, the TMA, Office of the Chief Medical Officer is responsible for providing guidance and oversight of the medical home initiative, implementation process and relevant policies and procedures for the military health system. The Patient Centered Medical Home Branch collaborates with other functional experts in HA/TMA and with the Service representatives to operationalize the PCMH policy, coordinate efforts, and provide subject matter expertise across the DoD.

DoD's strategic vision is based on Dr. Don Berwick's "Triple Aim" (Care, Health, and Cost). The DoD's vision is called the "Quadruple Aim," which adds the important fourth goal of military readiness. The Quadruple Aim vision creates health care value for the military system through (1) optimized population health, (2) patient experience, safe and quality care, (3) responsible use of resources, and (4) supporting readiness in the medical military mission. Senior Leadership recognized the PCMH model of care as the strategic enterprise initiative with the greatest potential to optimize the MHS strategic goals of the Quadruple Aim. Implementation targets have been set and a commitment to moving forward has been made with accountability links tied to outcome performance measures designed to optimize the Quadruple Aim.

Resources: To facilitate the transformation of primary care into PCMHs, DoD has contracted with the National Center for Quality Assurance (NCQA), through which MHS PCMHs will seek formal recognition. NCQA-recognized PCMHs must meet guidelines and standards in areas such as performance improvement, access, and quality that are consistent with or supportive of the MHS' Quadruple Aim goals. The DoD also facilitates PCMH implementation and operations by identifying and coordinating and resolving budget, information technology, guidance, training, and business policy issues. The TMA collaborates and coordinates with the Services through a formal advisory board and in collaboration with the Services, TMA has drafted a PCMH Guide to assist in implementation planning and operations. Finally, in order to facilitate communication among PCMH practices and Services, TMA is the administrative lead of an AHRQ-hosted DoD/VA PCMH Collaborative web portal; users can access and upload current documents, see the current implementation status and schedule, and participate in forums on a variety of topics related to PCMH implementation.

In the near term, the MHS is evaluating the effects of PCMH on quality and performance through a Business Planning Demonstration program at seven military installations, which will be used to test business planning processes for medical homes to determine whether pay-for-performance (P4P) and sub-capitated payments will improve patient outcomes. The demonstration sites are also evaluating per member per month (PMPM) measures (average of total healthcare costs/resource use for a single member in a plan month), Healthcare Effectiveness Data and Information Set (HEDIS®) measures, and other measures of performance, effectiveness and healthcare quality, all of which are tied to the Quadruple Aim. Long-term funding for primary care transformation and PCMH staff optimization is projected through the POM for 2012-2017. The intent is to tie the far term investment to pre-established outcome parameters to consistently monitor return on investment as the POM process proceeds. TMA and the Services will monitor PCMH operations and measure effectiveness through a range of metrics, including clinical effectiveness, access to care, patient satisfaction, and provider communication.

Impact: Fifty PCMH practices will seek formal recognition through NCQA in FY 2011. Up to 100 PCMH practices are projected to seek recognition in FY 2012. The MHS has exceeded the projected number of enrollees to military PCMH practices by 24 percent since 2009 and accelerated enrollment is expected in FY 2012-2013 as the MHS program matures.

The MHS interest in the PCMH is also present in the contractor networks. Several of the designated provider programs have achieved recognition for providers within their networks who have established medical homes and met the NCQA criteria for recognition. The Office of the Chief Medical Officer Clinical Quality Division had the opportunity to tour several of these facilities during annual site visits.

The managed care support contractors included sections in each of their performance plans to require a specified number of beneficiaries in each region to be enrolled in practices that offered patient centered medical homes. Health Net in the north region has pursued this type of practice enrollment. The contracts in the south and west are yet to be awarded and therefore, this concept hasn't been included in this fiscal year.

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PATIENT SAFETY

In 2001, the DoD Patient Safety Program (PSP) was established under congressional directive to identify and report actual and/or potential problems in medical systems and processes, and implement effective actions to improve patient safety and healthcare quality across the MHS. The DoD PSP is a comprehensive, centralized program with the goal of establishing a culture of patient safety through its products, services, and training. The program encourages a systems-based approach to creating a safe patient environment by engaging MHS leadership; promoting collaboration across all three Services; and fostering trust, transparency, teamwork, and communication. The DoD PSP engages the entire healthcare team to advance patient safety throughout the network, striving to proactively ensure the safe delivery of high quality, streamlined healthcare and a positive patient experience.



PATIENT SAFETY



Patient safety is defined by the Institute of Medicine (IOM) as the prevention of harm caused by errors of commission and omission. Unfortunately, in any healthcare delivery process, errors do occur that result in adverse events and patient harm, and many of these adverse events are process-related and preventable. Every three hours someone entrusted to the care of the DoD is harmed by a preventable medical error. This translates to an average of nearly nine DoD patients harmed each day since 2004 (Patient Safety Analysis Center analysis FY 2004–FY 2010).

The DoD PSP has been working to transform the culture of healthcare towards a zero harm approach to preventable patient safety issues. Since PSP inception, there has been a decrease in the overall

percentage of harm to patients in the MHS. In 2003, the harm percentage for the DoD was nearly six percent of all reported patient safety events at the end of FY 2010, however, the average harm percentage has fallen to three percent (with only 0.12 percent classified as serious harm), which is lower than civilian systems where the average is about 3.8 percent. Other indicators point to the overall impact of DoD PSP solutions, (e.g., the number of reported patient safety events, which has increased more than 23 percent) including a significant increase in the number of reported near misses, or patient safety events that have been avoided. These trends demonstrate the value placed on patient safety by the MHS which has been reinforced throughout the system by policies and mandates to ensure safe practices.

A CULTURE OF PATIENT SAFETY

Eliminating preventable errors and delivering safe patient care will not be achieved through a quick fix. Fortunately, there are evidence-based interventions that can be implemented to improve patient safety. The key lies in addressing underlying challenges and barriers to patient safety at institutional and organizational levels. The 1999 IOM report reached the conclusion that “the majority of medical errors do not result from individual recklessness or the actions of a particular group.” More commonly, errors are caused by faulty systems, processes, and conditions that lead people to make mistakes or fail to prevent them. With that knowledge, the DoD PSP established a non-punitive, systems-based approach to change practices and processes, creating a safer environment and improving

the culture of patient safety from within, which helps promote this culture by collaborating and aligning with national patient safety improvement initiatives. For example, the PSP has incorporated the National Quality Forum (NQF) Safe Practices for Better Healthcare as a framework within its overall strategy. NQF Safe Practices #1–4 focus on creating a culture of patient safety and include the following: leadership structures and systems; culture measurement, feedback, and intervention; teamwork training and skill building; and identification and mitigation of risks and hazards. By addressing each of these safe practice areas through evidence-based initiatives, the DoD PSP provides the MHS with strategies and tools for continuous improvement in healthcare quality and safe delivery.

NQF Safe Practices At-a-Glance

- **Safe Practice 1:** Leadership Structures and Systems – ensures organization wide awareness of patient safety performance gaps, accountability of leaders for gaps, and adequate investment in performance improvement abilities and actions taken to ensure safe care of patients.
- **Safe Practice 2:** Culture Measurement, Feedback, and Intervention – healthcare organizations measure culture, provide feedback to leadership and staff, and undertake interventions that will reduce patient safety.
- **Safe Practice 3:** Teamwork Training and Skill Building – develop organization wide approach to build team-based care through teamwork training, skill building, and team-led performance improvement interventions that reduce preventable harm to patients.
- **Safe Practice 4:** Identification and Mitigation of Risks and Hazards – systematically identify and mitigate patient safety risks and hazards with integrated approach to drive down and prevent patient harm.



Figure 5-1: A framework for safety care with an emphasis on safety.

**LEADERSHIP
ENGAGEMENT &
DEVELOPMENT**

Leadership engagement and support at all levels has been identified as a critical success factor to propagating, implementing, and sustaining a culture of patient safety across the MHS. The DoD PSP continues to champion change in military treatment facilities (MTFs) by engaging leadership from the top down to foster a patient safety culture. To engage MTF leadership at the highest level, DoD PSP launched a forum for Commanders to share, on a regular basis, the ideas, stories, best-practices, and challenges faced at the executive level with respect to patient safety improvement initiatives at their organizations. The



Commander's Patient Safety Forum (CPSF) attracted a core group of participants engaged in promoting the safe delivery of healthcare within their organizations. DoD PSP also forged a partnership with the Uniformed Services University of the Health Sciences (USU) to target medical professionals early in their careers about patient safety.

The CPSF supports MTF Commanders and their designees in their role of cultivating a culture of patient safety. The format for each session is a brief, interactive webinar and teleconference discussion that focuses on topics critical to the Commanders' ability to set the tone for patient safety locally and


lead the change necessary to advance patient safety within the MHS. The CPSF has established participation from a select group of champions, while steadily expanding the number of ad hoc attendees.

FY 2011 plans include continued efforts to promote the growth and strategic development of the CPSF. Topics will remain timely and relevant to senior leadership, and will focus on fostering dialogue and mutual support.

Patient Safety Managers (PSM) are champions of patient safety and a direct link to the front lines of patient care. PMS provide front-line leadership, bring safety-related issues to the

forefront, share innovative ideas on how to address these issues, and help implement changes that yield quantifiable results. PSMs are responsible for analyzing reported patient safety events to identify trends and develop process improvement initiatives in partnership with executive medicine.

The DoD PSP also piloted a professional development curriculum for new PSMs to equip them with the tools necessary to provide facility-level patient safety leadership within MTFs. In an effort to equip PSMs with the tools to complete their duties and successfully support a culture of patient safety, the five-day DoD PSP BPSM Course provides an overview of patient safety standards and concepts such as safety culture, quality management, performance improvement,



**Safe Practice 1:
Leadership Structures & Systems**

“Leadership structures and systems must be established to ensure that there is organization wide awareness of patient safety performance gaps, direct accountability of leaders for gaps, and adequate investment in performance improvement abilities, and that actions are taken to ensure safe care of every patient served.”

National Quality Forum. (Apr 2010). Safe Practices for Better Healthcare – 2010 Update: A Consensus Report.

Figure 5-2: Engaging Commanders in Patient Safety

Understanding Service-Specific Patient Safety Requirements



Figure 5-3: Training to Target Key Areas of Patient Safety Manager Development

and risk identification and mitigation. The BPSM course includes classroom instruction supported by online training and follow-up coaching and feedback sessions at regular intervals for twelve months post-course. The course is intended to be the first element of a “state-of-the-art” continuing professional development program for PSMs.

During FY 2010, DoD PSP conducted a comprehensive multi-level course evaluation to identify organizational barriers and enablers to PSM performance and to demonstrate participants’ transfer of learning to the job. The results of this evaluation have enabled the DoD PSP to identify areas for course improvement and more effectively support PSM development in the future. Based on the results of this analysis, a large-scale curriculum revision and course update was completed and piloted to new PSMs in all three Services. Learners’ feedback noted that the BPSM course not only helped them to advance their understanding of their roles as PSMs, but also increased their ability to identify and access support resources, create and follow an action plan for their role, and use measurement techniques to improve patient safety at their facility. Due to its success, the evaluation program was selected by the USU Continuing Health Education Department

as a model for their Accreditation Council for Continuing Medical Education audit and accreditation as “Continuing Medical Education provider with commendation.”

To further cultivate tomorrow’s patient safety leaders, a new partnership between the DoD PSP and the Patient Safety and Quality Academic Collaborative (PSQAC) was established at USU in a July 2010 memo to the Acting Principle Deputy Assistant Secretary for Health Affairs. The PSQAC’s core functions are to (1) support the DoD PSP and the Office of the Chief Medical Officer (OCMO) in developing the next generation patient safety leaders through original research and a patient safety curriculum, and (2) hardwire evidence-based patient safety principles into graduate, nursing, and medical education. During FY 2010, the PSQAC in its early stages developed a concept, mission, and vision, and defined specific areas of need in patient safety and potential areas for research. In FY 2011, the PSQAC will develop a long-term plan, establish faculty positions, and launch intramural research studies, which can be applied to expand patient safety knowledge and improve the development and delivery of evidence-based solutions.

Basic Patient Safety Manager Course Perception

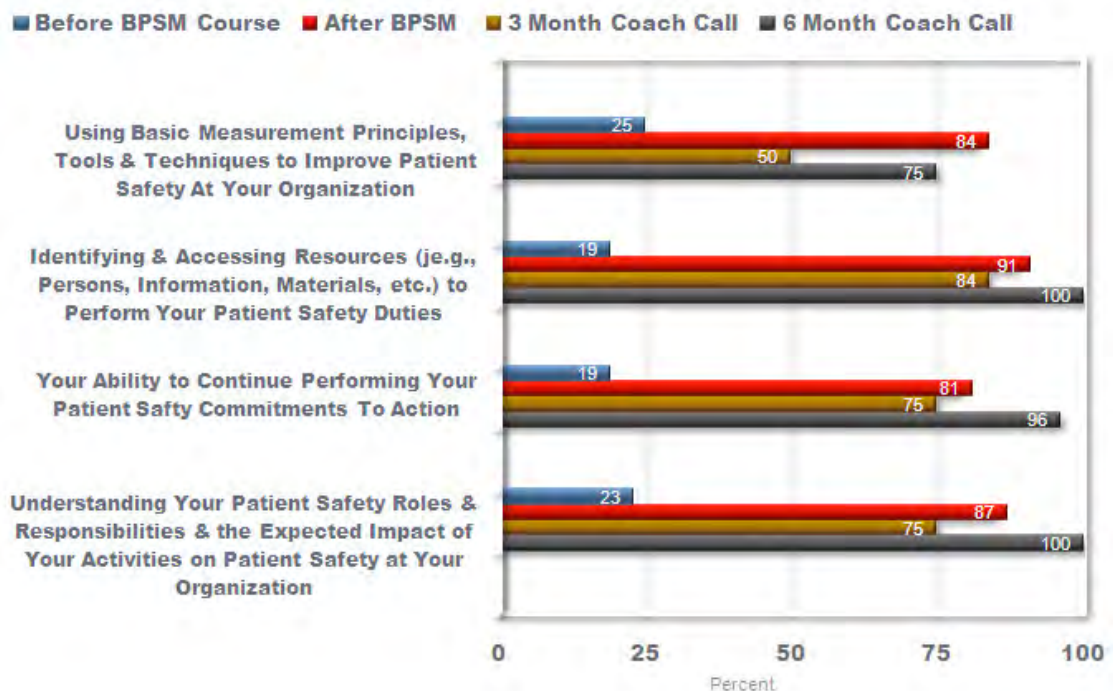


Figure 5-4: Chart shows basic patient safety manager course participant’s perceived learning and confidence in over all course objectives.

CULTURE ASSESSMENT & FEEDBACK

Improvements in patient safety are best achieved when organizations adopt a culture of safety. An organization must have a self-reflective and learning-oriented culture, supportive of reporting and event analysis in order to identify opportunities for improvement. Thus a non-punitive culture that values transparency is foundational to uncover gaps and risks for which targeted interventions may be implemented to improve performance and safety.



To support a standardized, anonymous reporting mechanism and establish an infrastructure for

a culture of safety in FY 2010, the DoD, PSP started deployment of the Patient Safety Reporting (PSR) System, a Tri-Service data management system. Until the deployment of PSR, the MHS did not have an automated method for collecting data on patient safety events, which resulted in incomplete system-wide tracking and trending, difficulty in identifying system quality improvements, and an inadequate capacity for gleaning and analyzing actionable information from patient safety event reporting.

and development process, PSR conducted a pilot deployment in nine MTFs this year, comprising of three MTFs from each Service. Following this last phase of operational and user testing, PSR was granted its Full Deployment Decision in September 2010. Facilities will have full operational capability in FY 2011, using PSR to capture patient safety event information, identify the systematic factors that are associated with such occurrences, and make informed decisions for action to correct these factors.

During its initial deployment, PSR was well-received by field operators due to its non-punitive orientation and level of functionality for event capture and reporting. Intuitive point-and-click data entry using standardized taxonomies streamlines event reporting while providing access to comprehensive analytic tools. It enables a greater ability to learn and share safety information by consolidating both medication and non-medication events into one tool and centralizing the capture, collection, and aggregation of event-level data across the enterprise. The implementation of PSR across the system presents a significant opportunity for data-driven understanding of patient safety challenges within the MHS and creation of evidence-based solutions for identified challenges. To gain the full benefit of PSR and its data, the foundation of a strong reporting culture must be developed and maintained. This message has been built into PSR training as it is rolled out, and will continue to be reinforced through the DoD PSP and with the continued support of the Services.

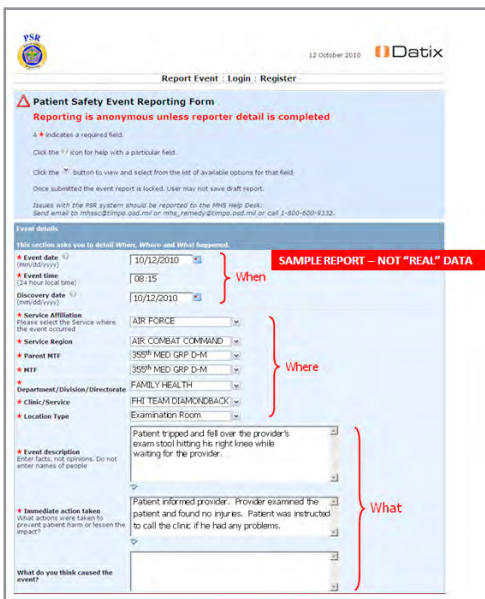


Figure 5-5: Snapshot: The Patient Safety Reporting System

In the culmination of a multi-year acquisition

PSR will provide MTFs with the following capabilities:

1. Standardizes PSR for MTFs and across the enterprise
2. Automates patient safety event reporting
3. Identifies areas for patient safety improvement
4. Captures, tracks, and trends healthcare events
5. Aggregates information for reporting across the enterprise
6. Provides analytic tools to support enterprise wide safety improvement strategies

Figure 5-6: TeamSTEPPS™ Statistics



when communicated back to leadership and staff, allows for the development and deployment of targeted and effective interventions to improve

culture in the organization. For the DoD PSP, the survey results will direct the development of tools and services to meet identified needs.

TRAINING COACHING & SKILL BUILDING FOR TEAM-BASED CARE

Based on root cause analysis (RCA) information from reported DoD patient safety events in FY 2010, communication and teamwork breakdown within the healthcare delivery team contributed to over 40 percent of preventable medical errors within the MHS. Thus, teamwork training and skill building continues to be a cornerstone of the DoD PSP services. The DoD PSP leverages this knowledge and similar findings to understand leading causes of patient harm and to:

- Identify opportunities for improving safety;
- Develop and disseminate evidence-based training and other tools to build capacity, advance patient safety, and sustain positive culture changes;
- Evaluate impact and drive continuous program improvements;
- Ensure optimal resource utilization; and
- Maintain infrastructure, which facilitates collaboration and dissemination of tools and solutions.

A successful improvement intervention is not just one training activity targeted at an individual or group. It is an ongoing learning and behavior modification process that must take place within a system and an environment that is conducive to change. Evidence in the field demonstrates that leadership support and other organizational factors, such as culture, improvement interventions

like teamwork training and skill building to reduce the risk of medical errors are more likely to transfer successfully into practice, and the positive impact of the intervention is more likely to endure. TeamSTEPPS® (Team Strategies and Tools to Enhance Performance and Patient Safety) is a team training program aimed at improving communication and

other teamwork skills among healthcare providers. It consists of numerous ready-to-use materials and training curricula necessary to successfully integrate teamwork principles into all areas of a healthcare system. Master Instructors work with facility champions to customize training and implementation strategies and then work with the facilities along the way, helping to ensure positive outcomes. In FY 2010, 2,053 individuals received TeamSTEPPS training from PSP Master Instructors, earning a total of 7,402.5 continuing education units (CEUs), either through a Train-the-Staff course to teach TeamSTEPPS tools and techniques to front-line staff or a Train-the-Trainer course to develop the cadre of TeamSTEPPS trainers who then train staff in their own organizations. Currently, TeamSTEPPS spreads within the Services with their own trainers. New in FY 2011, the DoD PSP will also offer CEUs for staff trained by alumnae of the DoD PSP Train-the-Trainer course, creating further incentive for sustainment and spread of TeamSTEPPS, as well as the capability to accurately track this spread in the field at a centralized level.

The past year also witnessed a significant effort to enhance the TeamSTEPPS course evaluation, advancing the DoD PSP's understanding of the impact of this training and providing objective measures with which to tailor its offerings. The program now gathers data regarding learners' commitment to implementation following a training event, as well as perceived barriers to implementing TeamSTEPPS principles. Training alone does not make a safer culture, thus the primary focus for the DoD PSP in FY 2011 will be to support TeamSTEPPS sustainment, provide ongoing coaching, and evaluate the impact of TeamSTEPPS implementation.

Evidence of TeamSTEPPS' positive impact has been demonstrated through success stories from individual facilities that have tracked results over time following a structured implementation of TeamSTEPPS. Demonstrated benefits of TeamSTEPPS implementation include: increases in patient satisfaction, improved medication reconciliations, reduction in unit variations, and reduction in fall rates. Common success factors include local competition and visible leadership



Figure 5-7: TeamSTEPPS Model for Patient Care

The Professional Conduct Toolkit

Downloaded 777 times in the four months since its launch. Due to strong interest, a workshop series is planned for FY 2011 to reinforce the important concepts and strategies presented in the toolkit.

Figure 5-8: DoD PSP empowers healthcare workers

support at all levels, setting the tone for serious and permanent change. Such success stories exemplify how teamwork and patient safety goals bring the Quadruple Aim to life.

To supplement the team-based care created through TeamSTEPPS training and implementation, the DoD PSP has also developed communication, teamwork, and skill building tools, which offer just-in-time training, action steps, and resource guides that complement those presented within the TeamSTEPPS curriculum. For example, healthcare professionals have identified a need for skills and approaches for addressing unprofessional conduct and disruptive behaviors with colleagues. As a means of improving teamwork, personal well-being, and creating healthy work environments, the DoD PSP developed and deployed the Professional Conduct Toolkit, which provides staff and teams with techniques to manage disruptive behaviors and build an environment in which all members of the team engage in mutual support and professional conduct.

The DoD PSP provides support to DoD Team Resource Centers (TRCs). The TRCs are involved with the development, validation, proliferation, and sustainment of team-driven care throughout the MHS. TRCs also conduct fundamental research and special projects on teamwork and patient safety. Applied research

and simulation are used to translate research findings and theory into practice and provide simulation-based opportunities to practice and learn team behaviors and skills. This approach results in safer team processes and patient outcomes. In FY 2010, the TRCs were instrumental in the continued spread and sustainment of TeamSTEPPS through incorporation of simulation-based practice,



Figure 5-9: Mobile Obstetric Emergencies Simulator

performance evaluation, and feedback.

In partnership with the DoD PSP, the TRCs are uniquely positioned to delve into areas of specific need within patient safety in the MHS, which has resulted in widespread policy and practice change across the Services. For example, in the MHS, perinatal is a high-risk area of care that is relevant to the majority of our beneficiary population of child-bearing age. Some rare events in obstetrics can result in significant harm to patients (mother and child) and their family, and impact the organization in terms of malpractice and visibility. The Mobile Obstetric Emergencies Simulator (MOES) is a mannequin-based patient simulation system, including instructional curriculum that leverages TeamSTEPPS with opportunities to practice and debrief teamwork and technical skills for specific obstetrics emergencies such as shoulder dysplasia. The MOES may be embedded within labor and delivery units for high-fidelity simulations. It was nominated for the Center for Disease Control's Recognition Award for 2010.

From 2007 through FY 2010, the DoD PSP has supported a comprehensive roll-out of the MOES system across the MHS, providing the MOES equipment to each of the 54 MTFs that offer labor and delivery services, as well as supporting ongoing training and evaluation of results. Each of the three Services has supported training with MOES as well, instituting policies mandating regular training on labor and delivery units. This type of innovation and widespread support in practice not only targets the Quadruple Aim goals of patient experience and per capita cost, but improves the lives (population health) of untold numbers of unborn babies.

The reach of TeamSTEPPS extends beyond established MTFs and is becoming an integral part of combat-casualty care in active theatres to improve patient safety at the earliest point of medical intervention. Over the past several years, DoD PSP partners in the Army have worked to deploy the TeamSTEPPS curriculum as a part of Operation Iraqi Freedom and have trained over 2,618 people in approximately twenty units in Iraq and Afghanistan since March 2008. This was the first time that team training was implemented in an active combat theatre during war and the Army even established a Train the Trainer site in Iraq. During the first year of its implementation, the number of patient safety event reports decreased by nearly 38 percent and the data obtained from these reports indicates significant decreases



in the number of needle stick incidents and communication and medication related errors as a result of these training interventions. In FY 2010, approximately 700 Operation Iraqi Freedom personnel were trained in the TeamSTEPPS curriculum, either prior to deploying or in the deployed environment. Given the impact and

recognized relevance the implementation of TeamSTEPPS principles has had in this setting, the DoD PSP is working towards formally incorporating TeamSTEPPS into pre-deployment requirements through joint forces training.

RISK IDENTIFICATION & MITIGATION

The DoD PSP, as mentioned earlier, promotes and provides systems and resources that help DoD healthcare providers decrease risk and improve care-giving processes to provide higher-quality, more efficient care to patients. Reporting of events provides the needed insight into broken processes and often correlates with reduced patient harm events. This is the critical first step to understanding and mitigating risks which leads to opportunities. In FY 2010, at least 120,034 medical events were reported (see Figure 5-10). While a slight decrease in the total number of reported events was seen for FY 2010, near miss event reporting continued to increase. Near miss event reporting is important because



lessons can be learned and corrective actions implemented. Despite an increase in harm events for FY 2010 compared to FY 2009, the number of harm events for FY 2010 remained lower than each of the individual five previous years (FY 2004-2008, Figure 5-11).

PSR's pilot in FY 2010 may have contributed to the decreased number of events reported as MTFs transitioned from the previous non-standard processes to a consistent electronic reporting mechanism. As PSR's rollout continues, PSP expects reporting volume to stabilize as data depth and quality continues to increase. Through PSR, MTFs can easily access, aggregate and trend their data. Standardizing reporting will enable the MHS to identify risks to safe care more readily and comprehensively. These reports will also be used to design effective products and services that can mitigate identified risks through the incorporation of reduction strategies.

To analyze risks, the DoD PSP offers risk mitigation assessment tools that caregivers can use to improve patient safety at their facilities. An RCA is conducted to identify the causal factors underlying variation in performance, including the occurrence of a sentinel event. The Joint Commission defines a sentinel event as "an unexpected occurrence or variation involving death or serious physical or psychological injury, or the risk thereof." The process for conducting an RCA focuses on systems and processes, not

DoD Reported Patient Safety Events, FY 04-10



Figure 5-10: DoD Reported Safety Events

Special Studies Harm Stratification Data FY04-FY10

Harm Stratification	2004		2005		2006		2007		2008		2009		2010	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Events Did Not Reach Patient, Near Miss	53,964	59%	68,884	64%	72,810	66%	73,473	69%	75,390	66%	71,834	56%	80,384	67%
Events Reached Patient, No Harm	33,401	37%	34,818	32%	33,206	30%	29,439	28%	33,841	30%	53,503	42%	36,623	31%
Events Reached patient, Harm	3,561	4%	3,875	4%	3,494	3%	3,440	3%	4,393	4%	2,232	2%	3,027	3%
Total	90,926		107,577		109,510		106,352		113,624		127,569		120,034	

Figure 5-11: Special Studies Data

Leading RCA Event Types, FY 98-10

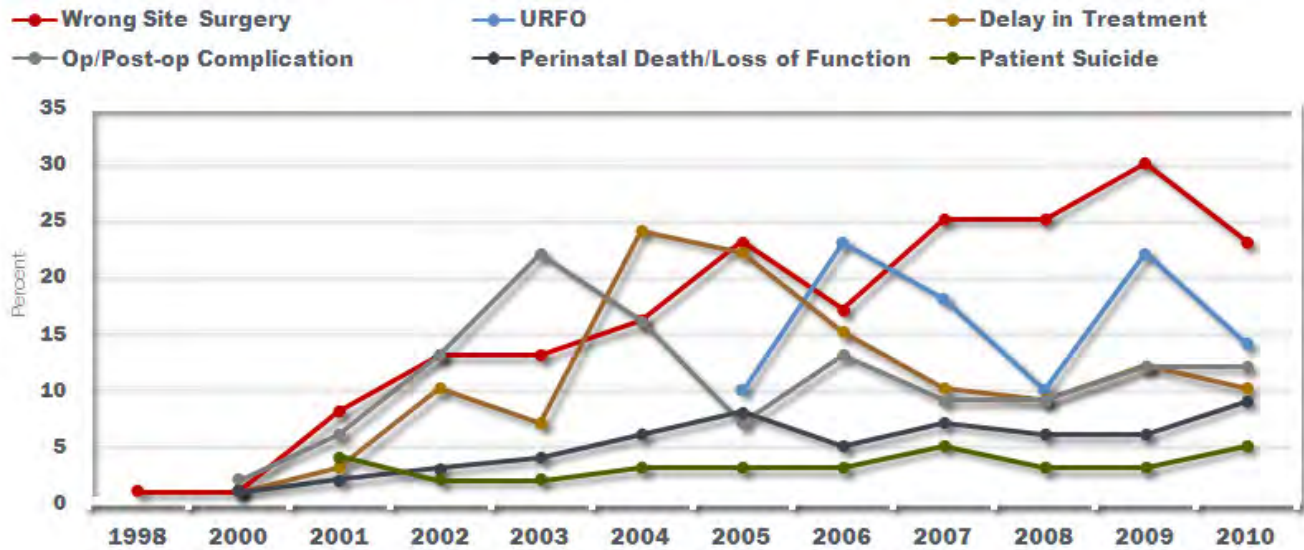


Figure 5-12: Leading Root Cause Analysis Event Types, FY 1998-2010

individual performance, which promotes building a culture of safety.

The most frequent RCA event categories (wrong site surgery, unintended retained foreign object (URFO), operation/postop complication, and delay in treatment) for FY 2010 (see Figure 5-13 and Figure 5-14) remained unchanged from FY 2009. Less frequent event categories that increased in FY 2010 were perinatal-death, loss of function and patient suicide. Wrong site surgery, while decreasing in frequency in FY 2010, will be a priority focus for the PSP moving forward. The majority of URFO events were retained vaginal sponges after a normal delivery. Pursuant to DoD

policy, all MTFs are required to complete an RCA on all Sentinel Events as defined by and in accordance with The Joint Commission standards.

The RCA curriculum offered by the DoD PSP within the BPSM Course provides DoD healthcare providers additional skills to function successfully in their positions. Specifically, DoD caregivers learn basic skills such as how to be team members for RCA investigations, enter events into the software and create reports. While RCAs are conducted retrospectively, DoD policy also requires MTFs to perform proactive risk assessments (PRAs). These assessments help MTFs anticipate potential areas of risk and develop mitigation plans prior to an event occurring. One tool the DoD uses for PRAs is a Failure Mode and Effect Analysis (FMEA). DoD offers an FMEA course designed to train users on a proactive method to determine the root cause(s) of potential failure modes and corrective actions.

To augment its training offerings, the DoD PSP also distributes patient safety data-based publications, enabling DoD healthcare providers to obtain the latest information around mitigating errors and protecting patients.

Published by the Patient Safety Analysis Center (PSAC), *Alerts & Advisories* provide time-sensitive information to senior leadership, providers and staff about important patient safety issues. Semi-Annual and Annual Reviews published by PSAC provide an analysis of the

RCAs by Category, FY10

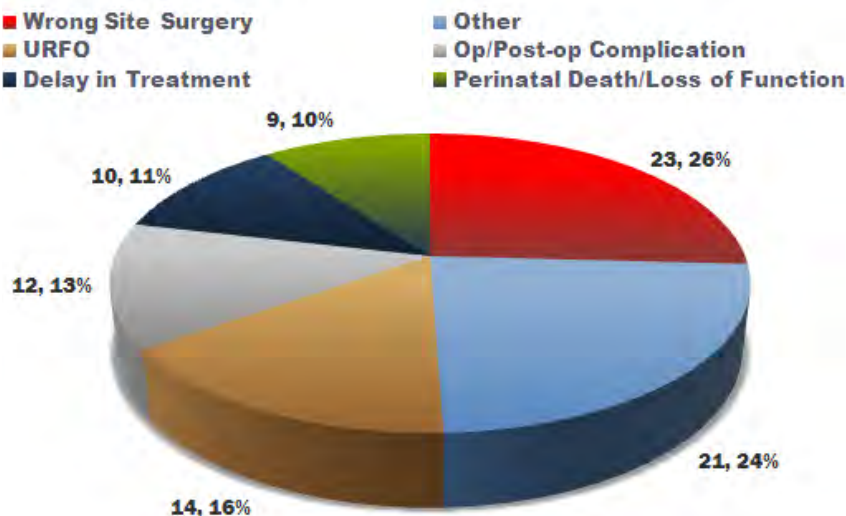


Figure 5-13: Leading Root Cause Analysis by Category, FY 2010

reports (non-medication monthly summary reports, medication events reports, PSR, RCAs, FMEAs, and other reports) submitted by the Services during the respective reporting period. They identify trends, lessons learned, and other observations impacting the safety of patient care.

Focused Reviews inform healthcare providers of trends, notable causal factors and useful lessons learned from events reported in facilities. These publications provide the latest patient safety innovations and recommended solutions from literature and MTFs.

AWARENESS PROMOTION

The DoD PSP uses several strategic communication approaches to promote awareness of patient safety and the steps take the steps necessary to improve in order to help MTFs in their ongoing improvement efforts. Awareness building is achieved through strategic communication to the field that includes overall program efforts, patient safety solutions, and learning activities. While DoD caregivers may have the tools and education to create a safer patient environment, communication helps sustain these best practices.

Throughout FY 2010, communications efforts laid the foundation to a more strategic and coordinated path to support the mission of the DoD PSP. Several initiatives in FY 2010 have focused on outreach and collaborative efforts in the DoD patient safety community through expanding the use of technology.

The PSP Web site underwent substantial growth and enhancement during FY 2010. With the goal of establishing a culture of patient safety and quality within the MHS, this website aligns the PSP with the broader MHS web presence and serves as an information destination for all stakeholders within MHS and the civilian community. The move to a new URL within the health.mil domain, increased site visits approximately 167 percent within twelve months

(Figure 5-14). The new site features information on the DoD PSP mission and history, a calendar of events, details about the programs tools and offerings, program news and awards, and contact information for the program. The new site has grown to be among the top two sites hosted on health.mil and continues to be an important resource for both military and civilian personnel and facilities seeking the latest news, information, and resources related to patient safety.

The DoD Patient Safety Learning Center (PSLC) is a secure, member-based, community of interest and online knowledge collaboration space for DoD patient safety personnel, including Commanders, physicians, nurses, patient safety managers, quality coordinators, and others engaged in creating a culture of safety. The PSLC web portal enables community members to access and contribute lessons learned, best practices, tools and resources, news articles, community events, and much more. It is used by the three Services and numerous MTFs both in the U.S. and overseas to promote communication and increase awareness across the patient safety community.

During FY 2010, PSLC content was enriched and organized across the areas of leadership, culture change, team skill building, and reporting. The primary content focus remains geared towards

Visits to Patient Safety Program Web Site, Nov 2009-Sept 2010



Figure 5-14: Patient Safety Program Website Traffic During FY 2010



Figure 5-15. The Department of Defense Patient Safety Learning Center



Figure 5-16: Military Treatment Facility Participation in Patient Safety Awareness Week, (From top)

PSMs and other patient safety champions, supporting and engaging individual facilities to implement and sustain the progress achieved by leveraging PSP tools and solutions. Total membership of this online community at the end of FY 2010 was nearly six times greater than at the start of the year. Continued enhancement of collaborative space in FY 2011 will be a key leverage point in promoting expanded use of PSP resources and the ability to collaborate on patient safety improvements.

Once a month, the PSP sponsors a Learning Action Network (LAN) webinar, an interactive web-based seminar focused on a topic specific to the world of patient safety. LAN webinars are hosted by subject matter experts who share the latest evidence, emerging practices, lessons learned, and success stories from within the DoD and civilian healthcare settings. These webinars are an important and effective mechanism for engaging the field and providing participants with skills and tools needed to advance patient safety in their facilities. During FY 2010, DoD LAN webinars reached over 700 participants in 13 episodes.

Through an enterprise-wide National Patient Safety Foundation (NPSF) membership, the DoD PSP offers webinars, toolkits, and other NPSF resources to MTFs. Every March, the DoD PSP engages the MHS to participate in the NPSF-sponsored Patient Safety Awareness week, an international education and awareness-building campaign for improving patient safety at the local level and involving patients in their own care. The theme of 2010's Patient Safety Awareness Week was "Let's Talk: Healthy Conversations for Safer Healthcare," which presented an opportunity for the DoD PSP

to highlight its many on-going safety-related conversations. Providers across the MHS were encouraged to join the PSLC and participate in the monthly LAN webinars. The DoD PSP shipped an NPSF Patient Safety Awareness Week Toolkit to each MTF, encouraging them to spread the word about patient safety and the PSP offerings available. Many of the MTFs shared the activities that they developed and hosted in observation of Patient Safety Awareness Week.

Each year, the DoD PSP accepts submissions for Patient Safety Awards to recognize superior contributions to patient safety in several categories. Awardees were invited to receive their awards and present their projects at the 2010 MHS Conference.

The 2010 Patient Safety Award Winners are as follows.

For Teamwork Training and Skill Building:

- Naval Hospital Guam, "Achieving Patient Safety in Obstetrics"
- 15th Medical Group at Hickham Air Force Base, "TeamSTEPPS: Change and Learning in an Ambulatory Care Setting"

For Identification and Mitigation of Risks and Hazards:

- Brooke Army Medical Center, "Prevention of Errors Related to Anticoagulants Prescribed in an In-patient Setting"
- Kenner Army Health Clinic, "Eliminating Unauthorized Abbreviations from CHCS/AHLTA"

For Culture Measurement, Feedback and Intervention:

- 99th Medical Group, Mike O'Callaghan Federal Hospital, "Advancing Patient Safety at the Bedside"

The MHS conference offers an additional opportunity to draw attention to the PSP and its achievements. The conference exhibit booth provided attendees with information on a wide array of available patient safety tools. Visitors were afforded hands-on experience with web-based learning sites and offered handouts on new initiatives such as the PSR and PSLC.

During FY 2011, the DoD PSP will expand and augment its dissemination and collaboration channels to promote awareness around patient safety. The DoD PSP will continue to build awareness and sustainment of its programs to empower DoD caregivers with the tools they need to build a culture

predicated on integrity, transparency and openness- a culture of patient safety. The ability of the PSP to proactively communicate with – rather than simply be responsive to – its stakeholders and program communication needs, is an indicator of the PSP’s advancement and expansion.

PURCHASED CARE FOCUS ON PATIENT SAFETY

All purchased care contractors continue to utilize the AHRQ patient safety indicators to determine whether there are geographic areas or facilities of concern. These indicators provide a mechanism for using administrative data to identify potential quality issues in the network rather than relying on patient complaints or grievances to identify concerns. The following table indicates the most frequently occurring events identified in the TRICARE population. Analysis across all TRICARE regions and contractors indicates the rates of occurrence for most indicators are less in the TRICARE population receiving care in the network than in the reported AHRQ data. The results of evaluation for safety indicators have not yielded a significant number of findings but have provided direction for focused study and review for contractors.

The US Family Health Plans (USFHP) responded to concerns that the DRG payment system may pressure facilities to move toward early discharge of patients. The plans implemented programs to assess the risk for readmission and to intervene as appropriate. The plans have also facilitated development of self-care skills and provided tools for self-management to reduce the likelihood of readmission. The programs are identified as the Care Transition Coach Project, the Transitions to Home Projects, Welcome Home Program and the Safe Discharge Project. All are intended to ascertain any discharge planning needs of the beneficiary from an

Special Studies Harm Stratification Data FY04-FY10

PSI Number	Most Frequent Agency for Healthcare Research and Quality Patient Safety Indicators in Purchased Care
2	Death in Low Mortality DRGs
6	Iatrogenic Pneumothorax
9	Postoperative hemorrhage or hematoma*
15	Accidental puncture or laceration
17	Birth trauma- injury to neonate
18	Obstetric trauma- Vaginal delivery with instrument
19	Obstetric trauma- Vaginal delivery without instrument
20	Obstetric trauma- Cesarean Section

Figure 5-17: Patient Safety Program Website Traffic During FY 2010

inpatient setting and to provide for follow up at specified intervals. The programs vary slightly which respect to when contact is initiated with the beneficiary but all provide for safe discharge and follow up. The programs are most appropriate for the aging beneficiary population enrolled to the USFHP.

Highlights of other patient safety initiatives in the USFHP include:

- Key concepts of TeamSTEPPS inserviced to Medical Staff Leadership and ongoing patient safety training provided to staff and providers (ten percent of the USFHP workforce is trained as TeamSTEPPS Master Trainers);
- Drugs to be avoided in the elderly initiative;
- Patient falls collaborative;
- Safety audits;
- Provider office medication safety orientation; and
- Medication safety initiative.

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**ACCESS TO
CARE & PATIENT
SATISFACTION**

The DoD Health Program Analysis and Evaluation Division (HPA&E), Health Care Survey Operations and Information Control, collects information to measure beneficiary and staff satisfaction, identify opportunities to improve quality of care and access, support functions such as strategic planning, marketing, contractual performance, and respond to Military Health System (MHS) and DoD requests. This section on access to care and patient satisfaction focuses on scanning the health care environment for relevant benchmarks, applying their metrics and striving to meet or exceed those standards. The metrics presented here focus on customer satisfaction and health promotion activities through Building Health Communities. More information can be obtained at <http://www.tricare.mil/hpae/surveys/survey.cfm>.



**ACCESS TO CARE &
PATIENT SATISFACTION**



**TRICARE
HEALTH CARE
SURVEY OF DOD
BENEFICIARIES**

The TRICARE Survey Program was formally established in accordance with the National Defense Authorization Act Public Law. No. 102-484, § 724, 106 Stat. 2315, 2440 (1992) and provides that the administering secretaries shall conduct annually a formal survey of persons receiving health care to determine:

- Availability of services provided, type of services received, and facilities where provided;
- Familiarity with availability and facilities;
- Health status;
- Satisfaction with system and quality provided; and
- Other matters as appropriate.

Sustaining the benefit is anchored on a number of supporting factors, including access to, and promptness of, health care services, quality of health care, customer services, and communication with health care providers. This section details several areas routinely monitored

by MHS leadership addressing patient access and patient satisfaction, including self-reported access to MHS care overall, satisfaction with various aspects of MHS (e.g. the availability and ease of obtaining care, timeliness of care, and communication with health care providers, satisfaction with the health plan in general, as well as quality of health care, including physician and specialty care). The health care surveys used by MHS and many commercial plans ask beneficiaries to rate various aspects of their health care. MHS beneficiaries who have used TRICARE are compared with the civilian benchmark. The civilian benchmark is based on health care system performance metrics from the national Consumer Assessment of Healthcare Providers and Systems (CAHPS). Health plan ratings depend on access to care and how the plan handles various service aspects such as claims, referrals and customer complaints.

**ACCESS TO CARE:
AVAILABILITY & EASE
OF OBTAINING CARE**

Availability and ease of obtaining care can be characterized by the ability of beneficiaries to

obtain the care they need when they need it. Two major measures of access within the CAHPS

Trends in Measures of Access For All MHS Beneficiaries (All Sources of Care)

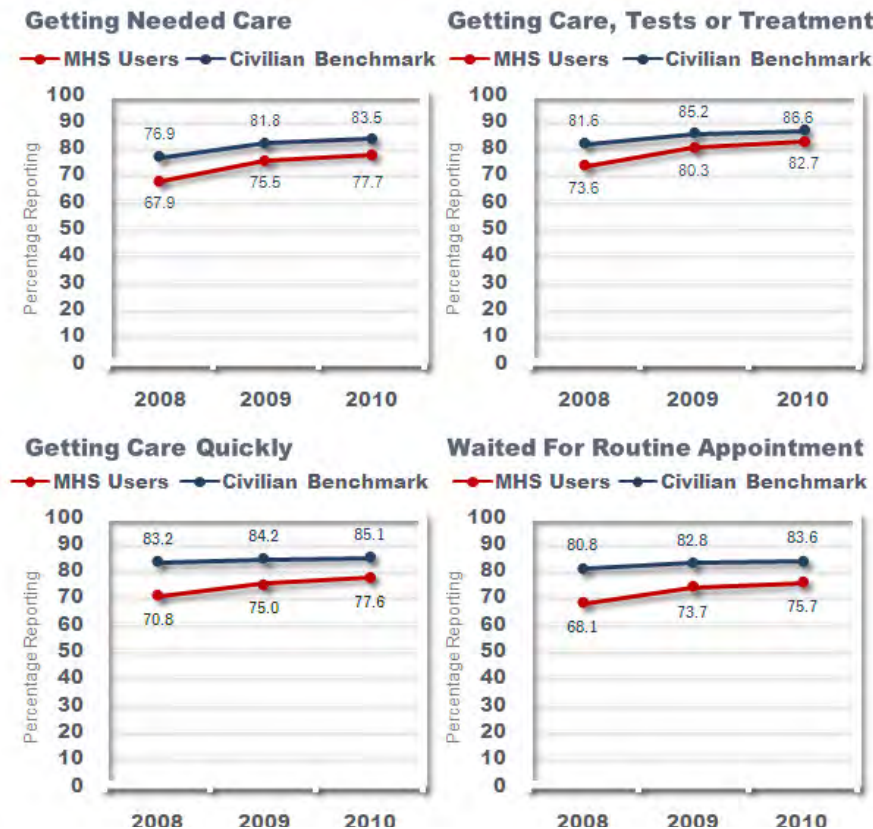


Figure 6-1. Note: DoD data were derived from the FYs 2008-2010 HCSDb, as of 12/17/2010, and adjusted for age and health status. "MHS Users" applies to survey respondents in the 50 United States. See Appendix (Methods and Data Sources) for more detailed discussion of the HCSDb methodology. Civilian benchmark is obtained from the National CAHPS Benchmarking Database. FY 2008 and part of FY 2009 results are based on questions taken from the CAHPS Version 3.0 Questionnaire and compared with the 2009 NCDB, the latest benchmark available.

survey—getting needed care and getting care quickly—address these issues. Getting needed care has two sub-measures: easy to get appointment with specialists and easy to get care, tests, or treatment. Getting care quickly also has two sub-measures: getting care as soon as needed and waiting for a routine visit. (Figure 6-1)

As shown in Figure 6-1, the MHS beneficiary ratings for getting needed care and getting care, tests, or treatment improved between FY 2008 and FY 2010, but continued to lag the civilian benchmark, which also improved during this period. The MHS beneficiary ratings for getting care quickly and waiting for a routine visit also improved between FY 2008 and FY 2010, but continued to lag the civilian benchmark.

Trends in Satisfaction Ratings of Key Health Plan Aspects

MHS beneficiaries in the U.S. who have used TRICARE are compared with the civilian benchmark with respect to ratings of (1) the health plan, in general; (2) health care; (3) personal physician; and (4) specialty care. Health plan ratings depend on access to care and how the plan handles various service aspects such as claims, referrals, and customer complaints. (Figure 6-2)

In Figure 6-2, the satisfaction with the overall TRICARE plan and health care improved between FY 2008 and FY 2010, while the civilian benchmarks decreased. Satisfaction with one’s personal or specialty physician also improved during this three-year period, as did the civilian benchmarks. The MHS satisfaction

rates continued to lag civilian benchmarks, with the exception of Health Plan, which was lower than the civilian benchmark in FY 2008, and exceeded the benchmark in FYs 2009 and 2010.

Trends in Satisfaction Ratings of Key Health Plan Aspects

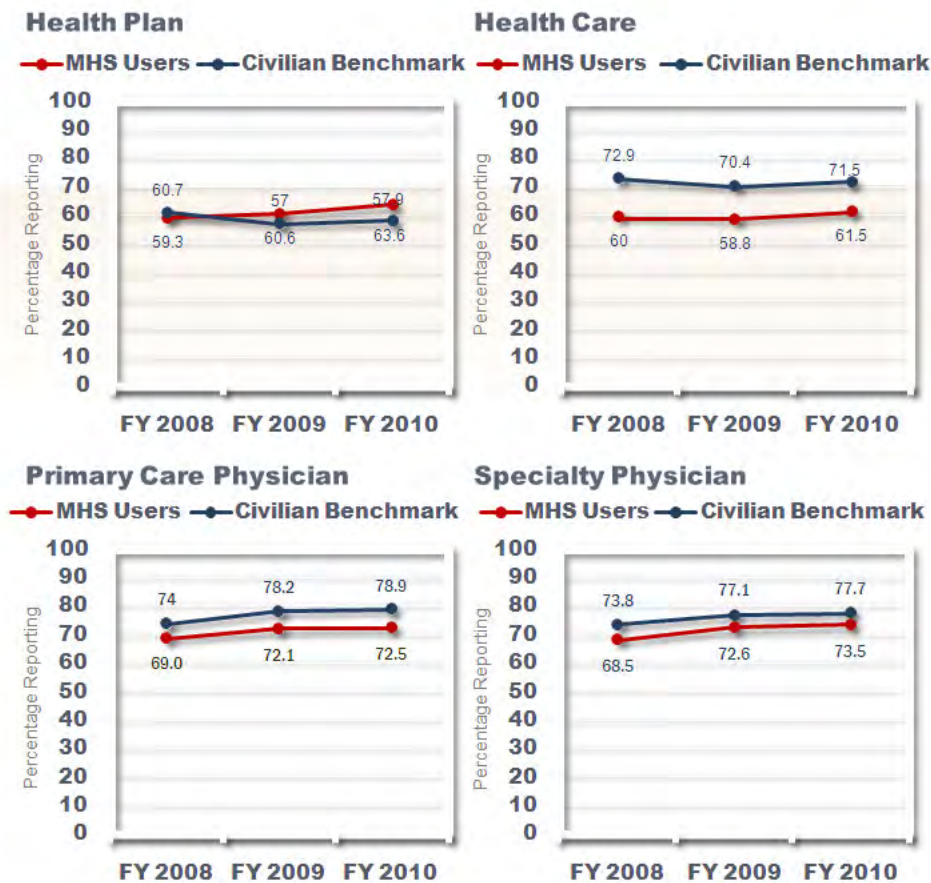


Figure 6-2. Note: DoD data were derived from the FYs 2008-2010 HCSDb, as of 12/17/2010, and adjusted for age and health status. Ratings are on a 0-10 scale, with “Satisfied” defined as a rating of 8 or better. “MHS Users” applies to survey respondents in the 50 United States. See Appendix (Methods and Data Sources) for more detailed discussion of the HCSDb methodology. Civilian benchmark is obtained from the National CAHPS Benchmarking Database. FY 2008 and part of FY 2009 results are based on questions taken from the CAHPS Version 3.0 Questionnaire and compared with the 2009 NCDB, the latest benchmark available.

**TRICARE
OUTPATIENT
SATISFACTION
SURVEY (TROSS)**

The TRICARE Outpatient Satisfaction Survey (TROSS) goal is to monitor and report on the experiences of outpatient beneficiaries receiving care from the MHS direct care military treatment facilities (MTFs) and

through its civilian network of providers. The TROSS is based on the Agency for Healthcare Research and Quality’s (AHRQ) Consumer Assessments of Health Plans Study (CAHPS), which allows for comparison with civilian



PATIENT SATISFACTION

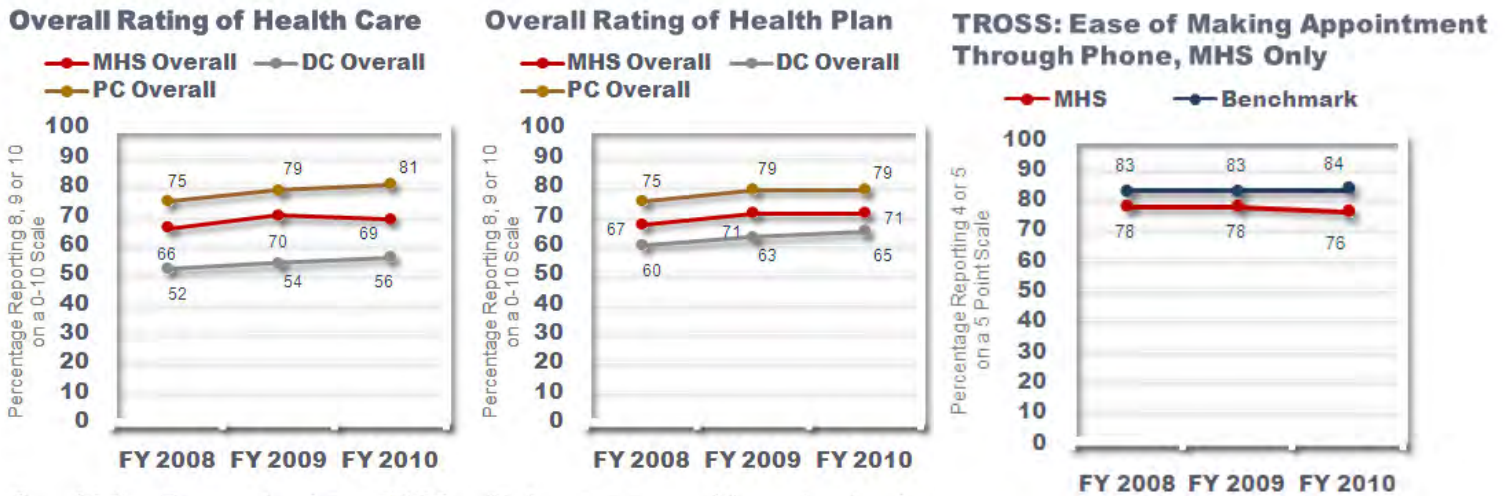


Figure 6-3: Note: Terms mentioned above, “MHS Overall” refers to both the user of direct and purchased care and “PC Overall” refers to care provided in the private sector through the claims-based reimbursement process. The years are depicted in TROSS years (e.g., May 2009–April 2010).

outpatient services. (Figure 6-3)

MHS enrollee overall rating of their health care (the percentage rating eight, nine, or ten on a zero–ten scale) improved from 66 percent in 2008 to 69 percent in 2010. Outpatient health care services increased their satisfaction rating the most: 75 percent in 2008 vs. 81 percent in 2010. The MTF-based DC rating also increased from 52 percent in 2008 to 56 percent in 2010.

Beneficiary overall rating of the health plan among MHS enrollees (the percentage rating eight, nine,

or ten on a zero–ten scale) improved from 67 percent in 2008 to 71 percent in 2010. Outpatient health care services increased their satisfaction rating from 75 percent in 2008 to 79 percent in 2010. The MTF-based DC rating increased the most, from 60 percent in 2008 to 65 percent in 2010.

The reported ease of making appointments by telephone decreased slightly from 78 percent (the percentage rating four or five on a five-point scale) in 2008 to 76 percent in 2010.

TRICARE INPATIENT SATISFACTION SURVEY (TRISS)

The purpose of the OASD(HA)/TMA TRICARE Inpatient Satisfaction Survey (TRISS) is to monitor and report on the experiences and level of satisfaction of MHS beneficiaries who have been admitted to MTF and civilian hospitals. As with the TROSS, the TRISS is designed to compare across all Services and across venues (i.e., DC versus PC). Separate but comparable surveys are used for inpatient surgical, medical, and obstetrical care. Similar to the TROSS and HCSDB, the TRISS is based on the AHRQ’s CAHPS surveys. Specifically, the TRISS is based on the Hospital-CAHPS (H-CAHPS) survey instrument, so MHS results may be compared with those of civilian hospitals reporting similar measures and trended over time. The TRISS includes 22 questions from H-CAHPS, and 60 questions specific to DoD. The survey covers a number of domains, including the following:

- Overall satisfaction, and recommendation to others;

- Nursing care (care, respect, listening and explanations);
- Physician care (care, respect, listening and explanations);
- Communication (with nurses, doctors, and regarding medications);
- Responsiveness of staff;
- Pain control;
- Hospital environment (cleanliness and quietness); and
- Post-discharge, such as written directions for post-discharge care.

To facilitate comparative analyses with publicly available inpatient satisfaction survey data, the TRISS survey process was designed in FY 2010 for implementation in FY 2011.

The MHS has steadily increased inpatient satisfaction within its DC and PC components from 54 percent in FY 2007 to 56 percent in FY 2009 (Figure 6-4).

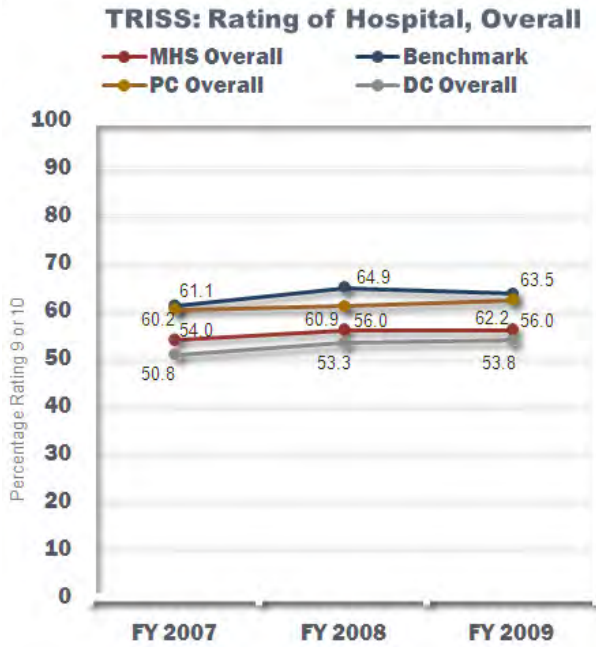


Figure 6-4: Annual TRICARE Inpatient Satisfaction Survey data are adjusted to account for the sampling design and non-response. Ratings are on a 0-10 point scale with "Satisfied" defined as a rating of 9 or better. Note: Terms above include the direct care (i.e., MTF-based care) and purchased care (i.e., care provided in the private sector, through claims-based reimbursement). "MHS" overall refers to the combination of responses from users of the direct and purchased care components.



In figure 6-5, the Surgical purchased care ratings of the hospital met or exceeded the benchmark each year from dates displayed. MHS beneficiaries who were discharged from either surgical or obstetric purchased care services rated their hospital higher than beneficiaries discharged from counterpart services in direct care hospitals. In addition, MHS beneficiaries who were discharged from medical services within direct care hospitals rated their hospital higher than beneficiaries discharged from purchased care hospitals.

As shown in Figure 6-5 surgical PC ratings of the hospital met or exceeded the benchmark each year. MHS beneficiaries who were discharged from either surgical or obstetrical purchased care services rated their hospital higher than beneficiaries discharged from counterpart services in DC MTF's each year. Shown in Figure 6-6, the overall MHS

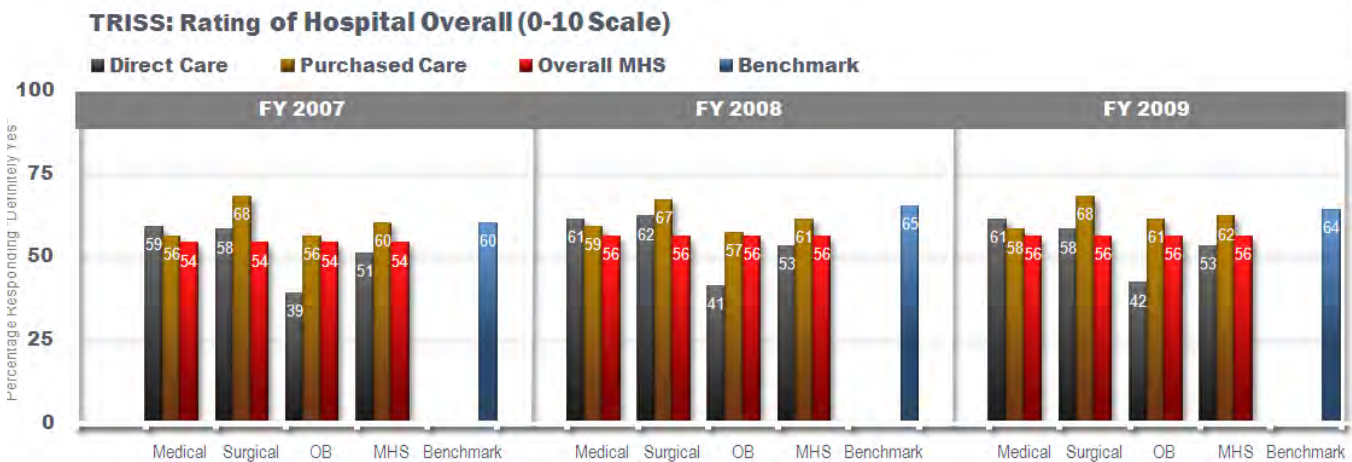


Figure 6-5: Source: Annual TRISS rating of hospital data are adjusted to account for the sampling design and non-response. Ratings are on a 0-10 point scale with "Satisfied" defined as a rating of 9 or better. Note: Terms above include direct care (i.e., MTF-based care) and purchased care (i.e., care provided in the private sector, through claims-based reimbursement). "MHS" overall refers to the combination of responses from users of the direct and purchased care components.

“willingness to recommend” ratings increased. Direct care ratings generally increased each year for all survey product lines. Surgical purchased care ratings met or exceeded the

civilian benchmark each year. Purchased care ratings generally increased each year for all survey product lines.

TRISS: Willingness to Recommend Hospital

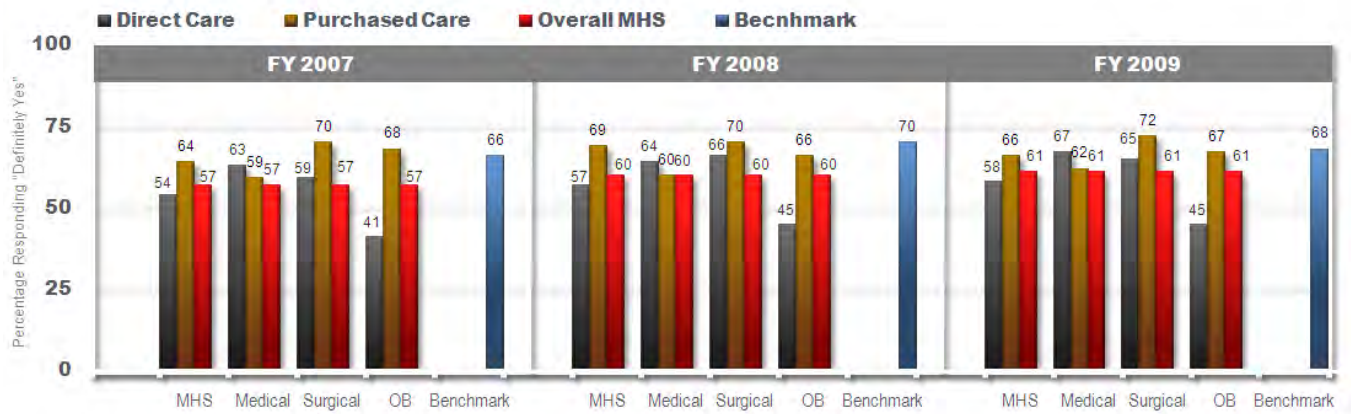


Figure 6-6: Annual data are adjusted to account for the sampling design and non-response. Ratings represent responses of “Definitely Yes”. Note: Terms above include direct care (i.e., MTF-based care) and purchased care (i.e., care provided in the private sector, through claims-based reimbursement). “MHS” refers to the combination of responses from users of the direct and purchased care components.

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**EVOLVING
PRACTICES &
INNOVATIONS**

The Department of Defense (DoD) has a range of supplemental programs and initiatives focused on enhancing the overall quality and breadth of health care provided across the enterprise. To this aim, the MHS has instituted several initiatives in multiple areas across the system. Programs such as the Health Care Innovations program, pilot projects and innovations in the Purchase Care network, and behavioral medicine initiatives that support specific areas of care just scratch the surface of the many leading-edge and evolving practices found within the MHS. Looking toward the future, DoD is committed to the research and evaluation of future initiatives that will yield benefits and improvements to military medicine as well as the public and private sectors of U.S. health care.



VIII

**EVOLVING PRACTICES
& INNOVATIONS**



HEALTH CARE INNOVATIONS PROGRAM (HIP)

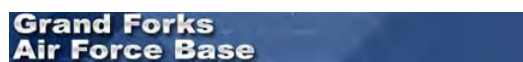
The Military Health System (MHS) has implemented many innovative programs to improve the experience of care, cost, and population health while enhancing the medical readiness of our Armed Forces. Often, however, one facility does not always know what another has accomplished, nor do facilities have time to do the research. The HIP, sponsored by the Office of the Chief Medical Officer (OCMO) at TMA, serves as a forum for leaders to share innovative programs and ideas for potential system-wide solutions.

The goals of the HIP are to showcase

MHS innovations from both the direct and purchased care systems in support of the MHS Quadruple Aim and to link people with ideas and innovations. The HIP categories are based on the Quadruple Aim strategy and focus on cost, readiness, experience of care and population health. All submitted abstracts are reviewed by a multidisciplinary evaluation panel of TMA physicians, nurses and administrators. The winner(s) of each category are invited to present their innovations during the 2011 MHS Conference. A synopsis of the award-winning program(s) in each of the four categories appears below.

COST

Prescription Pad Security
Grand Forks Air Force Base, ND



This initiative utilized a collaborative team that

increased prescription security by eliminating paper drug prescriptions from the Military Treatment Facility (MTF). This innovation increased the prescription accuracy rate to 94 percent and decreased processing time and waste in the pharmacy.

READINESS

Robotic Remote-Presence Readiness Training
Wright Patterson Air Force Base, OH



This Air Force facility established a distance learning platform capability to provide training and staff education about burn care, supplemented by hands on practice in a simulation center. In a joint collaboration with the U. S. Army Institute of Surgical Research,

remote presence burn training is conducted using a laptop, specially designed software and a remote presence robot with visual and auditory transmission capability. The training provides the 88th Medical Group staff with burn care education utilizing the principles of tele-medicine and provides a unique opportunity for staff to increase their knowledge of burn care. Approximately 250 staff members have participated and earned continuing education credits for this training.

EXPERIENCE OF CARE

1. Implementation of a Centralized Patient Transfer Center: Improving the Care Experience of Patients and their Families
Naval Medical Center San Diego, CA



A transfer center was established to provide a fast and efficient method for civilian emergency rooms to move patients to Naval Medical Center San Diego using a standardized and streamlined process. Streamlining a decentralized and cumbersome transfer process increased the number of transfers from civilian facilities by 34 percent, recapturing TRICARE beneficiaries and improving MTF utilization and fiscal responsibility.

2. Ventilator Associated Pneumonia: Targeting Zero
Tripler Army Medical Center, HI



The team at Tripler Army Medical Center implemented the Comprehensive Unit-based Safety Program (CUSP), which was developed by the Johns Hopkins University Quality and Safety Research Group, to significantly decrease the Ventilator Associated Pneumonia (VAP) rate in the Intensive Care Units (ICUs). The CUSP five steps were implemented in the ICU and compliance with the utilization of the VAP bundle in the ICU increased to 88 percent. The adoption of these strategies helped Tripler achieve zero VAPs in over 364 ventilator days.

POPULATION HEALTH

**Preventive Cardiology Clinic:
An Integrated Multi-Disciplinary
Approach to Risk Factor Modification**
Brooke Army Medical Center, TX



The Preventive Cardiology Clinic was designed within the Brooke Army Medical Center’s Department of Cardiology to

integrate resources and be modeled as a patient centered cardiovascular home concept. The clinic’s model resulted in improved identification and screening of cardiovascular patients as well as improved implementation of preventive therapies. The Preventive Cardiology Clinic increased preventive therapies by 100 percent, achieved tobacco cessation abstinence rates of 46 percent after six months and improved the quality of life for this high risk population.

OTHER SUCCESS STORIES & INNOVATIONS

U.S. Family Health Plan (USFHP)



The designated providers (DPs) and managed care support contractors

(MCSCs) across purchased care (PC) are also committed to recognizing and sharing innovations that result in quality health care. Below are three innovative examples based on the US Family Health Plan—one of three managed care plan options under TRICARE that provides civilian health care benefits to military personnel, retirees, and their families. These programs have been recognized for achieving stellar patient satisfaction rates (91 percent, which is 28 percent higher than the national average as assessed by NCQA), realizing clear cost savings cost effectiveness and positively impacting patient outcomes. The goal of all these programs is to concentrate on the concept of comprehensive, compassionate care focused on the patient’s lifespan, rather than a short term relationship with the health care organization.

improvements have come from a reduction in the number of unnecessary emergency room visits and hospital admissions. Hospital admissions were reduced by 25 percent and readmission rates were well below the Medicare benchmark.

Medical Home: USFHP at Pacific Medical Centers in Seattle has increased its focus on the medical home model to reduce complications and provide coordinated care. This group was recently recognized by NCQA for Quality Assurance as a medical home—only the second practice in the state of Washington to receive the designation. Ninety-nine percent of patients can get a same day appointment and the opportunity to talk with a nurse, pharmacist or physician. Clinical outcomes exceed the 75th percentile for most diabetic and cardiac care measures. In addition, hospital readmission rates are at 11.3 percent—lower than the 10th percentile for Medicare. These results are attributed to the medical model’s ability to focus on coordination of care and case management.

Transitional Care Program: Christus Health in Houston (a USFHP network of hospitals and contracted



providers) established a transitional care program that identifies and supports patients with five or more chronic conditions. This population consists of only five percent of Christus Health’s patients but represents nearly 50 percent of total health care costs. Most of this population is over age 65. Plan resources are focused on providing care to patients who have a high risk of complications. Through this approach, utilization

Triple Aim: Martin’s Point Health Care (a network of health care centers in Maine, New Hampshire, Vermont, NE New York, and northern Pennsylvania) was



one of the first 40 organizations invited by the Institute for Healthcare Improvement (IHI) to be a prototyping organization for the Triple Aim initiative. The Triple Aim’s goals are to improve population health, enhance the patient experience of care, and reduce or control the per capita cost of care. Martin’s Point adopted the Triple Aim as a framework for its quality plan, set specific goals for each

aim, and is working on multiple projects to make improvements toward each of those aims. Martin's Point is also integrating the Triple Aim into its pilot programs, such as the one for using electronic medical records to flag patients with two or more high blood pressure readings as patients to be contacted, screened further for treatment needs, and followed for results. Similar processes are followed for diabetics with a focus on assessing blood sugar levels, targeting the reduction of HbA1C levels, increasing the number of foot and eye

examinations, and maintaining a consistent follow-up of care. The outcome of these approaches has resulted in significant care improvements. For example, the pre-Triple Aim percentage of diabetic patients receiving HbA1C tests every six months was 74.8 percent; after Martin's Point began to apply the Triple Aim principles, that percentage increased to 92.3 percent. The next step is to spread these pilots across all practice sites and network physicians as well.

BEHAVIORAL MEDICINE SUSTAINED INITIATIVES & INNOVATIONS

Behavioral medicine initiatives and innovations in the MHS are multifaceted and focused on continually assessing and meeting the dynamic care needs of the beneficiaries through the provision of high quality, patient-centered and efficient behavioral health care. Highlighted below are key FY 2010 behavioral health initiatives and innovations related to medical readiness, population health and the experience of care.

The Behavioral Medicine Division (BMD) in the Office of the Chief Medical Officer provides leadership on behavioral health beneficiary health issues affecting the MHS in the direct care and purchased care components of the TRICARE. Areas of focus for BMD in FY 2010 include the development of a DoD/VA Integrated Mental Health Strategy (IMHS) for enhanced coordination of services; establishment of clinical guidance for behavioral health in primary care patient centered medical home within the direct care system; coordination of DoD efforts related to the prevention, identification, assessment and treatment of substance misuse and abuse through the establishment of the Addictive Substances Misuse Advisory Committee (ASMAC); and comprehensive review and assessment of the DoD programs and activities for the prevention, diagnosis, and treatment of substance use disorders (SUDs) in members of the Armed Forces.

New Program to Train and Certify Medical Personnel in Deployment Mental Health

The Office of Force Health Protection and Readiness and the Deployment Health Clinical Center have established a new program to train and certify medical personnel

in implementing deployment mental health assessments for Service members. Through the program, medical personnel will learn to conduct effective deployment mental health screenings, education, and referral.

By law, mental health assessments are required for each member of the Armed Forces deployed in connection with a contingency operation. Before and after deployment mental health assessments are completed to identify and assess post-traumatic stress disorder (PTSD), depression, suicidal tendencies, and other mental health conditions, risks and concerns.

Streamlined Certification Procedure for Psychiatric Partial Hospitalization

The certification procedure for psychiatric partial hospitalization has been streamlined in 2010, making it available to more beneficiaries. Partial hospitalization programs (PHPs) at TRICARE-authorized hospitals are now considered TRICARE-authorized providers and no longer need a separate certification. Freestanding PHPs, however, must be certified and must be participating TRICARE providers.

The TRICARE PHP benefit is provided through day, evening, or weekend program options. Partial hospitalization care is usually provided for a minimum of three hours a day, five days per week. However, the TRICARE benefit also includes care sometimes referred to as intensive outpatient treatment, which may be provided three hours a day, three days a week. Because there are no "emergency" admissions to PHPs, prior authorization is required for all PHP admissions.



New Center for Treatment of Traumatic Brain Injury and Psychological Health



Conditions
The National Intrepid Center of Excellence opened June 24, 2010 at National Naval Medical Center in Bethesda, MD. The center specializes in the treatment of Service members and veterans diagnosed with traumatic brain injury and psychological health conditions. The center is a project of the Intrepid Fallen Heroes Fund, a nonprofit organization funded by private donations from individuals, corporations, and nonprofit organizations. The funds from the Intrepid Fallen Heroes Fund helped build and equip the center; it will now be turned over to DoD to operate. The center will conduct research, test new treatments, and provide comprehensive training and education to patients, providers and families.

“inTransition” Helps Ensure Continuity of Behavioral Health Care



A new program, inTransition, ensures continuity of behavioral health care for Service members as they move between health care systems and/or providers. The program is open to Service members in all branches who are currently receiving mental health treatment and are transitioning station or status, such as those going through a PCS or those going from MHS care to Veterans Affairs (VA) behavioral health care. The program is voluntary, confidential and simple. The entire inTransition process occurs telephonically.

Once enrolled, the transitioning Service member is assigned a personal transition support coach, who assists the Service member during the transition and helps him or her connect with a new behavioral health provider. Support coaches are licensed, master’s- or doctoral-level, mental health clinicians who understand military culture and respect the Service member’s privacy. Providers can enroll transitioning Service members in the program or Service members can enroll themselves, 24 hours a day, seven days a week, 365 days a year by calling any of the following numbers:

within the continental U.S.: 1-800-424-7877, toll free; overseas: 1-800-424-4685, toll free/1-314-387-4700, collect.

Using the Internet to Identify and Treat Stress

TRICARE, the military Services, and the VA have begun using Internet-based tools to identify and treat Service members with traumatic brain injuries and post-traumatic stress disorder. Using Internet- and text-based technology is increasingly important to reach Service members because these are media they are comfortable with, and because many beneficiaries—such as National Guard, Reserve members and veterans who have separated from service—are widely dispersed and sometimes hard to reach.

Some 780,000 soldiers have responded to the Army’s Internet-based Global Accessing Tool to measure resilience and the service plans to expand its Web outreach. Also, the Army uses an Internet-based mental health screening to assess soldiers returning from deployments. The Afterdeployment.org Web site, which is similar to the Web-based TRICARE Assistance Program, delivers content from diverse sources. In addition to offering Web-based tools targeting behavioral health issues, the revamped site showcases expanded content and easily accessed connections to real-time support. Facebook and Twitter announce the availability of new topic content. All topics are easily accessed from the home page, allowing users to link up to a vast matrix of expert information and other resources.



Families Overcoming Under Stress

The Families Overcoming Under Stress (FOCUS) program was developed in 2007 to help Navy and Marine Corps families cope with stress from multiple deployments and other pressures. The program aims to offer practical help in situations where symptoms may be mild, acute or anywhere in between. FOCUS uses a color code to help families pinpoint current stress levels. The colors range from green (“good to go”) through the continuum to red (“not good to go”). That baseline guides the services best suited for clients. The services range from education and

guidance on stress prevention to skills-based peer learning groups to multi-session resilience training, which runs from eight to ten weeks. Four Air Force and four Army locations are running pilot programs. The Pentagon's Military Community and Family Policy Office independently reviewed the program and cited it as a best-practice program. As a result, plans are under way to expand FOCUS to other branches of the military.

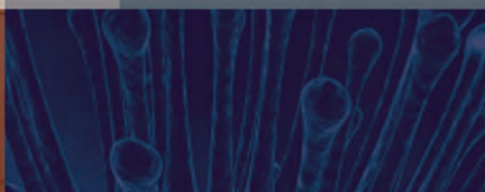
Ongoing efforts to identify new opportunities for improvement of the TRICARE behavioral health benefits and of behavioral health clinical quality continue. Behavioral health benefits are evaluated for revision and expansion in accordance with industry standards and advances in the evidence-base. These ongoing efforts demonstrate MHS's commitment to providing high quality behavioral health care benefits to the 9.6 million TRICARE beneficiaries worldwide.

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THE ARMED
FORCES HEALTH
SURVEILLANCE
CENTER: AN
OVERVIEW

The Armed Forces Health Surveillance Center (AFHSC) provides DoD with the uniquely centralized epidemiologic capability to maintain and enhance the health of military and military-associated populations by providing relevant, timely, actionable, and comprehensive health surveillance information. An integral component of AFHSC's role is the continuous monitoring of military-relevant infectious disease prevalence, to include incidence and trends in time, person and place to estimate the operational impact and disease burden of all DoD health care beneficiaries. AFHSC also provides evidence-based recommendations to key DoD decision makers for implementing control measures in support of Force Health Protection.



BIOSURVEILLANCE



EPIDEMIOLOGIC ANALYSIS

The AFHSC operates the Defense Medical Surveillance System (DMSS), an executive information system whose longitudinal database contains up-to-date and historical data on diseases and medical events on personnel and deployments (e.g., hospitalizations, ambulatory visits, reportable medical conditions, HIV tests, acute respiratory diseases, and longitudinal data). Also, AFHSC can assess vaccine safety, immunization rates, acute respiratory diseases, clinical outcomes, and incidence and prevalence of operationally-acquired infections. Through extensive analyses of baseline rates and trends on a wide range of medical conditions among Army, Navy, Air Force, Marines, and Coast Guard, the AFHSC is able to track Service members' health status prior to and after deployment.

The world's largest serum repository is also maintained by AFHSC. The DoD Serum Repository (DoDSR), houses more than 53 million specimens that are linked to relevant demographic, occupational and medical information in DMSS. Together, DMSS and DoDSR provide the unprecedented capability to conduct military medical surveillance, clinical care assessments, and sero-epidemiologic investigations.

The Center continues to work with other government agencies in the collaborative effort to enhance DoD biosurveillance capabilities. AFHSC, the Military Vaccine Agency (MILVAX) and Centers for Disease Control and Prevention (CDC) established the Vaccine Analysis Unit to monitor vaccine related adverse events. Outcomes of special interest that are evaluated include:

1. Guillain-Barré syndrome;
2. Rheumatoid arthritis and Systemic Lupus Erythematosus;
3. Type 1 diabetes mellitus;
4. Optic neuritis;
5. Safety of concomitant vaccines,
6. Optimal Tetanus-Diphtheria-Pertussis schedule for safety;
7. Autoimmune thyroid disease;
8. Unintentional injuries; as well as
9. Anaphylaxis.

In FY2010, AFHSC generated over 550 time-sensitive, surveillance-related products for DoD stakeholders, from ad hoc requests, that involved scientific rigor and comprehensive analyses. Throughout the year, AFHSC produced nearly 2,800 recurring surveillance reports and summaries of the incidence, impact, distribution and trends of medical events occurring in DoD-associated populations. Such analyses and the proficiency developed in producing them are vital to providing needed expertise for short-term surveillance activities, outbreak investigations, and generation of actionable public health information that contributes to improving and protecting the health of Service members.

From medical administrative and other theater-based data integrated into DMSS, AFHSC routinely publishes about eight summary reports per issue in the Medical Surveillance Monthly Report (MSMR). Since 1995, these monthly publications include reports of notifiable diseases, trends of illnesses of special surveillance interest, and field reports describing outbreaks and case occurrences (i.e. evidence-based estimates of the incidence, distribution, and impact of illness and injuries) among United States military members and associated populations. The MSMR is widely read by military leaders, physicians and other health care professionals, epidemiologists, and news media personnel.

The AFHSC website (www.afhsc.mil) provided access in FY2010 to over 12,000 audience-specific reports and surveillance products, epidemiology databases with over 500 million rows of data, and preventive medicine applications used globally by investigators and partners from 92 countries.

Through the development, documentation, and dissemination of standard surveillance case definitions and methodologies, AFHSC enhanced the quality and coordination of health surveillance in the DoD and within AFHSC. Moreover, the AFHSC worked with the Services' public health centers to identify and create standardized surveillance procedures and reporting mechanisms to promote reproducible and analytic health surveillance methods for the DoD.

EMERGING INFECTIOUS DISEASE SURVEILLANCE

The Global Emerging Infections Surveillance and Response System (DoD-GEIS) was established by the DoD in response to President Clinton's 1996 Directive (NSTC-7) to better protect US and

global communities from the growing threat of emerging diseases. Congressional supplementary appropriations in FY 2006 allowed for the expansion of GEIS' pandemic influenza program,

and in FY 2008 DoD-GEIS became a division within the AFHSC. The Division of GEIS Operations (AFHSC-GEIS) at AFHSC promotes national and international preparedness for emerging infections while maintaining its focus on protecting the health of all DoD health care beneficiaries. Following the aims outlined in the 2009 National Strategy for Countering Biological Threats, AFHSC-GEIS contributes to the US Government's (USG) ability to better assess and respond to threats and outbreaks. By monitoring emerging and re-emerging infectious diseases (EIDs) among US service members, dependents and associated host-country nationals, AFHSC-GEIS strengthens domestic and international military epidemiologic and laboratory capabilities. To sustain US Force Health Protection and to support the Military Health System (MHS), the AFHSC-GEIS mission is to integrate global emerging infectious disease surveillance and response efforts. AFHSC-GEIS strives to be recognized as a worldwide surveillance system for emerging infections through its global network of DoD research laboratories and its strong relationships with partner host countries.



Today, AFHSC-GEIS provides direction, funding and oversight to a network of global partners that includes over 500 sentinel sites in at least 84 countries. The three key components of the AFHSC-GEIS partner network are: 1) the five far-reaching and specialized reference overseas laboratories located in strategic regions of Southeast Asia (Armed Forces Research Institute of Medical Research and Science, and Naval Medical Research Unit No.2), Africa

(Naval Medical Research Unit No. 3 and US Army Medical Research Unit-Kenya) and South America (Naval Medical Research Unit No. 6); 2) the unique complement of four continental US reference laboratories

(Naval Medical Research Center, Naval Health Research Center, US Air Force School of Aerospace Medicine, and Walter Reed Army Institute of Research); and 3) the comprehensive system of medical treatment facilities and medical center-based laboratories within the MHS. Through focusing on five categories of military-relevant infectious diseases, AFHSC-GEIS monitors emerging infections such as pandemic and avian influenza and other novel respiratory diseases; malaria, dengue and other vector-borne illnesses; acute diarrheal diseases; antimicrobial resistant pathogens including bacterial wound infections; and sexually-transmitted infections.

The AFHSC'-GEIS' most salient contribution to biosurveillance is its support of the large and comprehensive DoD Influenza Surveillance Network. Comprised of several domestic and international sites and laboratories, the network has a substantial role in the USG contributions to the global surveillance of influenza viruses, and contributes to the vaccine development efforts of CDC and the World Health Organization's (WHO) Global Influenza Surveillance Network. AFHSC-GEIS partners report on influenza trends from a variety of sources, including: military recruit and host-country local population-based surveillance, the electronic MHS, and lab-specific and regional surveillance. AFHSC-GEIS also supports network partners with the capacity to rapidly diagnose and detect emerging influenza and other respiratory pathogens.

During FY 2010, AFHSC-GEIS influenza and respiratory disease surveillance network played an integral role in monitoring the circulation, disease severity, and epidemiologic patterns of influenza viruses (avian, seasonal, and influenza A /H1N1). The partner network continued to support the USG and international pandemic surge response with a 400 percent increase, from the FY2009 pre-pandemic period, in the number of samples collected and analyzed. Over 81,000 respiratory pathogen samples were screened, and one specimen (A/Iraq/8529/2009) was selected as an influenza A/H1N1 reference strain for the WHO Northern Hemisphere 2010-2011 seasonal vaccine (Figure 9-1). To enhance avian influenza surveillance, the epidemiologic and laboratory capabilities were expanded in FY 2010 to enable deployed veterinary personnel to screen for highly pathogenic avian influenza in animals, which also resulted in the validation of the National Veterinary Service Laboratory's avian

DoD Influenza Surveillance Results

Viral Strain	Year	Notes
A/Panama/H3N2	2000-04	Seed Virus for Vaccine
A/New Caledonia/H1N1	2000-07	Peruvian Cadets, 1999
A/California/H3N2	2005-06	Nepal, 2004
B/Malaysia	2006-08	Arizona & Nepal
A/South Dakota/H1N1	2008-09	Strain & Seed Virus
A/Iraq/H1N1	2009-11	WHO Reference Strain
A/California/7/2009/H1N1	2009-11	Pandemic Virus Seed Strain

Figure 9-1: DoD Influenza virus isolate contributions to the Northern Hemisphere Influenza Trivalent Vaccine components.



Figure 9-2: Scientists from Naval Health Research Center and the Instituto Nacional de Referencia Epidemiológica collaborating in Cross-Border Disease Surveillance activities

influenza matrix assay for H5N1 and H7N3 strain through the Joint Biological Agent Identification and Diagnostic System. Partners at the Naval Health Research Center continued to collaborate with CDC and the Instituto de Diagnóstico y Referencia Epidemiológica (InDRE) on monitoring trends of influenza-like illness at clinics near the US border with Mexico.

NHRC’s participation

in CDC’s Border Infectious Disease Surveillance and Early Warning Infectious Disease Surveillance programs allowed for NHRC researchers to train public health professionals from InDRE in 2010. Trainings focused on detecting respiratory pathogens using classical culture techniques and advanced platforms (Figure 9-2). This surveillance effort with Mexico helped foster strong collaborative relationships, and joint training and communications critical for emerging disease surveillance. Many of the overseas partners also engaged in new military-to-military partnerships for respiratory surveillance in Africa, Central America, and Southeast Asia.

The AFHSC-GEIS network supported several other disease-specific training and capacity building efforts with partner countries, developed new surveillance and diagnostic platforms, and provided timely reporting of surveillance results and disease trends to public health authorities.

CAPACITY BUILDING INITIATIVES & OUTBREAK RESPONSE EFFORTS

Key aspects of the AFHSC and Division of -GEIS missions are the promotion and facilitation of national and international preparedness for EIDs. Strengthening capacity for disease surveillance and public health laboratories for the U.S. military and

aspects of the IHR, and the quick identification and reporting of public health emergencies of international concern (PHEIC).



Figure 9-3: In September 2010, the International Military Forum, in collaboration with the WHO and the IMMC, was held to discuss the IHR as it pertains to militaries.

partner host countries represents a critical contribution to meeting the WHO’s International Health Regulations 2005 [IHR(2005)] detection, reporting, and response requirements. In August 2010, AFHSC sponsored a pre-conference workshop at the Force Health Protection Conference in Phoenix, Arizona for DoD Public Health Emergency Officers to present “lessons learned” from the nH1N1 influenza pandemic. Specifically, key topics discussed included the use of non-pharmaceutical interventions such as screening, isolation and quarantine, social distancing, school closures, risk communication, and personal protection from real-life events during the pandemic. Additionally, during September 2010, the AFHSC, WHO, and the International Committee of Military Medicine (IMMC) co-sponsored a 39-nation forum in St. Petersburg, Russia that addressed key host country and military-relevant

To guide global military medical and preventive medicine efforts, AFHSC hosted bi-weekly Epidemiology Chiefs teleconferences with 32 military associated organizations worldwide, providing a forum for information sharing, professional consultation, and dialogue with the Armed Services’ leaders in epidemiology, public health centers, preventive medicine partners, policymakers, healthcare providers, and researchers. Subjects covered included outbreak detection, disease response, epidemiology investigations, routine and special health surveillance activities and findings, and mortality associated with infectious diseases. Furthermore, military Service liaisons hosted monthly forums with DoD public health hubs and subject matter experts to address special surveillance topics.

As the primary DoD proponent for health surveillance and epidemiologic training, AFHSC staff members supervised and mentored nine preventive medicine residents during their rotations from Walter Reed Army Medical Center and the Uniformed Services University of the Health Sciences. The Center’s experienced staff members also provided subject-matter expertise to military public health courses, exercises, and convened conferences in support of the AFHSC mission.

The global AFHSC-GEIS Partner Network provides a coordinated approach for executing capacity building efforts and ensures core capacities are developed to support host countries. In FY2010, capacity building efforts included the enhancement of diagnostics and the expansion of surveillance capabilities for militarily-relevant infectious and tropical diseases. Partners worked closely with over 80 Ministries of Health (MoH), Agriculture, Defense, and other foreign government entities, and international institutions. Initiatives supported training of members from at least 52 National Influenza Centers (NIC), other country-specific influenza, and EID reference laboratories (44 civilian, eight military) in 46 countries worldwide. For instance, in collaboration with WHO's Eastern Mediterranean Regional Office, the NAMRU-3 conducted trainings on molecular genetics and sequencing for students from the NICs of Egypt, Morocco and Oman. Additionally, the Center for Disaster and Humanitarian Assistance Medicine (CDHAM) conducted 14 training sessions involving 607 individuals from 19 countries, in support of US Combatant Command partnerships, improving the abilities of local Ministries of Defense and Health to respond to and prevent emerging disease threats.

Partners responded to more than 70 outbreaks in over 50 countries. The most common diseases investigated were influenza, cholera, dengue fever and malaria. Human disease was present in

all outbreaks and specific causative agents were identified in over 90 percent of them. Nearly one-half of the outbreak investigations involved AFHSC-GEIS partners supporting civilian entities through formal bilateral requests or as part of their role as a WHO regional reference laboratory; partner WHO reference laboratories included the U.S. Naval Medical Research Unit No. 3, the Armed Forces Research Institute of Medical Sciences (AFRIMS), and the U.S. Army Medical Research Unit-Kenya. In the majority of partner responses to outbreak requests: testing of samples from civilian populations was performed; about one-third of the partner responses to these requests involved outbreaks among U.S. troops stationed in the continental U.S. or at overseas locations; and one-quarter of the responses involved investigations in collaboration with foreign military partners and multinational forces involved in peacekeeping activities or exercises.

Response activities included a range of efforts, from providing basic consultative services to comprehensive outbreak packages that included field support, epidemiologic consultation and laboratory diagnostic support. Laboratory diagnostic and testing support was provided to a majority of the outbreak support requests. Partner researchers and epidemiologists were needed in over one-third of the outbreaks, and in half of the outbreaks, local health officials received epidemiologic or clinical consultative support.

ELECTRONIC SURVEILLANCE INITIATIVES

The Electronic Surveillance System for the Early Notification of Community-based Epidemics (ESSENCE) system is a web-based disease surveillance application that examines DoD outpatient health care data for rapid or unusual increases in the frequency of certain syndromes. ESSENCE links medical data with geographic information systems, allowing DoD public health investigators to track the spread of symptoms by examining specific locations. During 2009 pandemic and the 2010 influenza season, ESSENCE was used to detect and track novel influenza A/H1N1 outbreaks.



With the ultimate goal of Force Health Protection and global public health stability, the AFHSC-GEIS and its global network of partners have continued to develop other automated electronic surveillance and early warning systems for use in resource-limited settings. Leveraging the successes and experiences gained through the development of ESSENCE, AFHSC-GEIS and Johns Hopkins University Applied Physics Lab (JHU/APL) initiated the development of the Suite for Automated Global Electronic bioSurveillance (SAGES). SAGES is an open-source, electronic disease surveillance tool built to be used by host-countries as an early warning system to achieve IHR (2005) compliance for sustainable disease surveillance.

Incorporation of the analysis and visualization components of ESSENCE into the ESSENCE

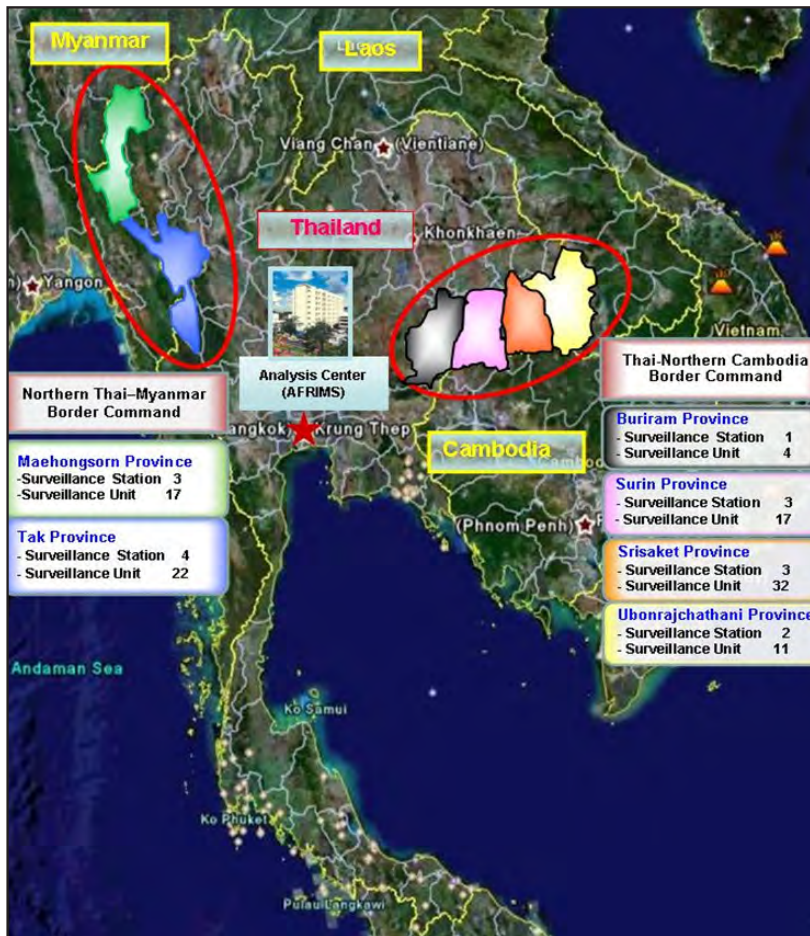


Figure 9-4: Border areas of Thailand where unit-based surveillance by the Royal Thai Army and AFRIMS Epidemiology Section has operated since 2009. Data: ©2007 Tele Atlas, ©2007 Europa Technologies, Image: ©2007 TerraMetrics and NASA.

Desktop Edition (EDE) provided a useful, user-friendly software platform for locations where web-access is not readily available. SAGES, then, uses components of EDE for data acquisition, analysis and visualization, communications, and modeling/simulation/evaluation; these tools are easily customizable to host-country needs. By providing countries with the ability to better detect, monitor, and provide timely reports and notifications of PHEICs, SAGES will help to facilitate local

electronic disease surveillance, regional public health collaborations, and international disease reporting of emerging disease threats.

FY2010 partner initiatives include electronic surveillance efforts at AFRIMS and at the Naval Medical Research Unit Six (NAMRU-6). Efforts included the continuation of projects with the Royal Thai Army and with the Philippine Ministry of Health. Support and enhancement of the electronic “Unit-based Surveillance (UBS)” project has continued in FY2010 in remote border areas of Thailand (Fig. 9-4); this early warning system has added three new surveillance stations along the northern Thai-Cambodia border area, and has trained over 1,000 personnel on utilization of the UBS software.

In the Philippines, the piloted Short Message Service-based surveillance project with the Philippine MoH continues to leverage progress made in FY 2009 with new participating health centers in Cebu City. Additionally, the NAMRU-6 in Peru continues to support electronic disease surveillance in Latin America. Activities included optimization of Alerta, a public-private initiative that has revolutionized surveillance for the Peruvian military over the past eight years. The Alerta system was vital in identifying several outbreaks during FY 2010, including Influenza A/H1N1, dengue, malaria, chicken pox, and other respiratory diseases. In collaboration with JHU/APL, NAMRU-6 implemented the testing of a new open-sourced electronic syndromic surveillance system that can be used in resource-limited environments. Numerous developing countries in Latin America and in other regions show interest in the system’s potential as a useful surveillance tool. All partner efforts constitute important global situational awareness initiatives and serve a crucial role in medical diplomacy in the support of global public health.

SUMMARY

In summary, AFHSC and its extensive network of national, international and DoD Partners around the world are in a unique position to detect the emergence of new respiratory pathogens, other EIDs, and PHEICs as they arise and before they compromise mission

essential functions. AFHSC will continue to leverage its many assets described above to optimize Force Health Protection and global public health. For additional information, please visit AFHSC’s Web site (<http://afhsc.mil>).

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APPENDICES



ACRONYMS

A

AAAHC	Accreditation Association of Ambulatory Health Care
AAFP	American Academy of Family Physicians
AAP	American Academy of Pediatrics
ABA	Applied Behavioral Analysis
ACC	American College of Cardiology
ACEI	Angiotensin Converting Enzyme Inhibitor
ACP	American College of Physicians
ACTD	Advanced Concept Technology Demonstration
AD	Active Duty
ADSMs	Active Duty Service Members
AF	Atrial Fibrillation
AFHSC	Armed Forces Health Surveillance Center
AFIOH	Air Force Institute for Operational Health
AFRIMS	Armed Forces Research Institute of Medical Sciences (Bangkok, Thailand)
AHA	American Heart Association
AHLTA-T	AHLTA-Theater
AHRQ	Agency for Healthcare Research and Quality
AMI	Acute Myocardial Infarction
AOA	American Osteopathic Association
AOR	Area of Responsibility
ARB	Angiotensin Receptor Blocker
ASA	American Society of Anesthesiologists
ARM-P	Anesthesia Reporting and Monitoring Panel
ASC	Andersen Simulation Center
ASD(HA)	Assistant Secretary of Defense (Health Affairs)
ASD	Autism Spectrum Disorders
ATTC	Army Trauma Training Center

B

BCF	Basic Core Formulary
BHIE	Bidirectional Health Information Exchange
BMD	Behavioral Medicine Division
BMI	Body Mass Index
BSC	Balanced Score Card

C

C&G	Clinician and Group
CAC	Children's Asthma Care
CAHPS	Consumer Assessment of Health Plans Survey
CARF	Commission on Accreditation Rehabilitation Facilities
CDC	Centers for Disease Control and Prevention
CDR	Clinical Data Repository
CDW	Clinical Data Warehouse
CERPS	Center for Education and Research in Patient Safety
CHCS	Composite Health Care System
CHF	Congestive Heart Failure
CM	Case Management
CMDAMC	Carl R. Darnall Army Medical Center
CME	Continuing Medical Education
CMS	Centers for Medicare and Medicaid Services
CMS	Command Management System
CMSP	Clinical Measures Steering Panel
CNE	Continuing Nursing Education
CONUS	Continental United States
COPD	Chronic Obstructive Pulmonary Disease
CPOE	Computer-based Provider Order Entry
CPG	Clinical Practice Guideline
CPSC	Clinical Proponency Steering Committee
CQF	Clinical Quality Forum

CQM	Clinical Quality Management
CRDAMC	Carl R. Darnall Army Medical Center
CQMP	Clinical Quality Management Program
CSS	Customer Satisfaction Survey
C-STARS	Center for Sustainment of Trauma and Readiness Skills

D

DC	Direct Care
DCS	Direct Care System
DHIMS	Defense Health Information Management System
DHSS	Defense Health Services Systems
DM	Disease Management
DMAA	Disease Management Association of America
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DoDI	Department of Defense Instruction
DoDSR	DoD Serum Repository
DP	Designated Provider

E

EBM	Evidence-Based Medicine
ED	Emergency Department
EHR	Electronic Health Record
EIA	Education Intervention for Autism Spectrum Disorders
EID	Emerging Infectious Diseases
ER	Emergency Room
ESSENCE	Electronic Surveillance System for the Early Notification of Community-Based Epidemics
EUCOM	European Command
EWORS	Early Warning Outbreak Recognition System

F

FLS	Fundamentals of Laparoscopic Skills
FMEA	Failure Mode and Effects Analysis
FY	Fiscal Year

G

GAO	Government Accountability Office
GEIS	Global Emerging Infections Surveillance and Response System
GERD	Gastro-Esophageal Reflux Disease
GI	Gastrointestinal
GISN	Global Influenza Surveillance Network

H

HA	Health Affairs
HAI	Healthcare-Associated Infection and Hospital-Acquired Infection
HAWC	Health and Wellness Centers
HCAHPS	Hospital Consumer Assessment of Healthcare Providers and Systems
HCD	Health Care Data, Inc.
HCSDB	Health Care Survey of DoD Beneficiaries
HCTCP	Health Care Team Coordination Program
HEDIS®	Healthcare Effectiveness Data and Information Set
HF	Heart Failure
HFAP	Healthcare Facilities Accreditation Program
HHS	Department of Health and Human Services
HIP	Healthcare Innovations Program
HPV	Human Papilloma Virus
HQMC	Headquarters Marine Corps
HRB	Health-Related Behaviors

I

- ICD-9-CM International Classification of Diseases, 9th Edition, Clinical Modification
- IHI Institute for Healthcare Improvement
- IHR International Health Regulations
- IITSEC Interservice/Industry Training, Simulation and Education Conference
- IOM Institute of Medicine
- IPCP Infection Prevention and Control Panel
- ICSI Institute for Clinical Systems Improvement
- IVR Interactive Voice Recognition

J

- JHHC Johns Hopkins Health Care
- JHU/APL Johns Hopkins University's Applied Physics Laboratory
- JMeWS Joint Medical Workstation
- JMO-T ACTD Joint Medical Operations-Telemedicine Advanced Concept Demonstration Program
- JTF Joint Task Force

K

- KEPRO Keystone Peer Review Organization

L

- LAN Learning Action Network
- Lao PDR Lao People's Democratic Republic

- LBP Low Back Pain
- LOS Length of Stay
- LVEF Left Ventricular Ejection Fraction
- LVS Left Ventricular Systolic
- LVSD Left Ventricular Systolic Dysfunction

M

- MC Managed Care
- MCSCs Managed Care Support Contracts
- MDR Military Health System Data Repository
- MDRO Multidrug-Resistant Organism
- MEDCOM Medical Command
- MHS Military Health System
- MHS CQM Military Health System Clinical Quality Management
- MHSPHP Military Health System Population Health Portal
- MILVAX Military Vaccine Agency
- MM Medical Management
- MOES Mobile Obstetrics Emergencies Simulator
- MoH Ministries of Health
- MSAT Medical Situational Awareness in the Theater
- MTF Medical Treatment Facility
- MTPAT Medical Team Performance Assessment

N

- NAD Non-Active Duty
- NAMRU-2 Naval Medical Research Unit No. 2 (Indonesia)
- NAMRU-3 Naval Medical Research Unit No. 3 (Egypt)
- NCAMSC National Capital Area Medical Simulation Center
- NCQA National Committee on Quality Assurance

NDAA National Defense Authorization Act
 NF Non-Formulary
 NHRC Naval Health Research Center
 NHRCD Naval Health Research Center Detachment
 NHSN National Healthcare Safety Network
 NMCP Naval Medical Center Portsmouth
 NMCSO Naval Medical Center, San Diego
 NMRCO Naval Medical Research Center Detachment in Peru
 NNDC National Naval Dental Center
 NPIC National Perinatal Information Center
 NQF National Quality Forum
 NQMC National Quality Monitoring Contractor
 NRT Nicotine Replacement Therapy

O

OASD Office of the Secretary of Defense
 OCMO Office of the Chief Medical Officer
 OCONUS Outside the Contiguous United States

P

PACOM U.S. Pacific Command
 PAM Patient Activation Measure
 PAP Prenatal Advisory Panel
 PC Purchased Care
 PCI Percutaneous Coronary Intervention
 PCM Primary Care Manager

PCMH Patient-Centered Medical Home
 PDTS Pharmacy Data Transaction System
 PH Population Health
 PHEIC Public Health Events of International Concern
 PHI Population Health Improvement
 PHMMD Population Health and Medical Management Division
 PHP Partial Hospitalization Program
 PHR Personal Health Record
 PMPM Per Member Per Month
 PN Pneumonia
 PPI Proton Pump Inhibitor
 PR Pregnancy
 PRA Proactive Risk Assessments
 PSA Public Service Announcement
 PSAC Patient Safety Analysis Center
 PSC Patient Safety Center
 PSI Patient Safety Indicator
 PSLC Patient Safety Learning Center
 PSP Patient Safety Program
 PSR Patient Safety Reporting System

Q

QHC Quality in Health Care
 QI Quality Indicators
 QIP Quality Improvement Plan

R

RCA Root Cause Analysis
 RM Risk Management
 RTA Royal Thai Army

S

SADR	Standard Ambulatory Data Record
SAP	Scientific Advisory Panel
SC	Support Contract
SCIP	Surgical Care Improvement Project
SIDR	Standard Inpatient Data Record
SMMAC	Senior Military Medicine Advisory Council
SMS	Short Message Service
SRE	Serious Reportable Events

T

TATRC	Telemedicine & Advanced Technology Research Center
TBI	Traumatic Brain Injury
TeamSTEPPS®	Team Strategies and Tools to Enhance Performance and Patient Safety
TFL	TRICARE for Life
TJC	The Joint Commission
TMA	TRICARE Management Activity
TMPI-J	Theater Medical Information Program-Joint
TOM	TRICARE Operations Manual
TRC	Team Resource Centers
TRISS	TRICARE Inpatient Satisfaction Survey
TRO	TRICARE Regional Office
TROSS	TRICARE Outpatient Satisfaction Survey
TTH	Transition to Home

U

UBS	Thai Unit-Based Surveillance
UF	Uniform Formulary
UM	Utilization Management
URAC	Formerly Utilization Review Accreditation Commission (now acronym is the name of the organization)
URFO	Unintended Retained Foreign Object
USACHPPM	United States Army Center for Health Promotion and Preventive Medicine
USAMRU-K	United States Army Medical Research Unit-Kenya
USFHP	U.S. Family Health Plan
USG	U.S. Government
USUHS	Uniformed Services University of the Health Sciences

V

VA	Veterans Administration
VAU	Vaccine Analysis Unit
VBAC	Vaginal Birth After Caesarean Section

W

WHO	World Health Organization
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