**01 Apr 2021**

Referral Data

for the

MHS Data Repository (MDR)

(Version 1.04.02)

Future Specification

**Revision History**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Version** | **Date** | **Para/Tbl/Fig** | **Originator** | **Description of Change** |
| 1.00.00 | 08/16/2007 |  | W. Funk | * Baseline specification. |
| 1.01.00 | 12/10/2007 | * Table 3 | J. MacLeod | * Updated Record ID format; added Harvest Date and CHCS Host * Added instruction under Receiving Filters |
| 1.02.00 | 1/5/2011 | * Table 1 | J. MacLeod | * Added the appointment data set |
|  |  | * Table 2 |  | * Added two new variables that are appended to the referral data via a merge to the MDR appointment data |
| 1.02.01 | 2/8/2012 | * Table 2 | J. MacLeod | * Corrected many variable names, descriptions and lengths. |
| 1.02.02 | 4/24/2012 | * Table 1 | J. MacLeod | * Clarified the business rule for merging the referral data to the appointment data. |
| 1.02.03 | 4/19/2013 | * Section 5 * Table 2 | W. Funk | * Changed the date window for the receiving filters to 60 days * Added new data elements. |
| 1.03.00 | 6/9/2015 | * Table 1 * Table 2 | J. MacLeod | * Table 1 – Added the MTF Network Referral table * Table 2 – Added ref\_to\_mcsc, UIN, and harvest\_date variables |
| 1.03.01 | 6/30/2015 | * Table 2 | J. MacLeod | * Removed harvest\_date, because it was duplicative. That field is already in the data set under the name Extract Date. |
| 1.03.02 | 11/13/2015 | * Table 2 | C. Kangas | * Changed transformation logic for UIN field. |
| 1.03.03 | 9/29/2017 | * Table 2 | W. Funk | * Added fields related to NDAA 2017 and T2017 |
| 1.03.04 | 10/4/2017 | * Appendix B | W. Funk | * Corrected a typo in the ACV Group derivation |
| 1.03.05 | 11/15/2017 | * Table 2 | W. Funk | * Added enrollment regions |
| 1.04.00 | 01/31/2020 | * Table 2 | J. MacLeod | * Added Clinical Priority |
| 1.04.01 | 2/23/2021 | * Table 1 * Tables 2 | W. Funk | * Added PCM Identity Table * Added fields from the PCM Identity Table |
| 1.04.02 | 4/1/2021 | * Table 1 * Table 2 | T. Comer for W. Funk | * Added service line format file * Added logic for new fields, including refbyprv\_name, refto\_svcline, refby\_svcline |

# MDR Referral File

1. Background:

Referrals are a common way for health care organizations to manage demand, and to ensure that patients get to the providers they need to see, when they need to see them. There are many organizations doing referrals for DHP sponsored care. This data file will initially be fielded with only MTF referrals.

There are two data files prepared from the CHCS referral feeds. One data file is the master referral file; the other is the referral to appointment crosswalk; a mapping of referral number to appointment ID, to be used for processing Standard Ambulatory Data Records or for when users want to link referrals to appointments.

1. Source:

The data for the MDR referral table comes from the CHCS MCP Referral File

1. Transmission (Format and Frequency):

The MTF Referral files are provided as 100+ separate feeds; one for each CHCS Host. These feeds are sent from the CHCS Hosts on a weekly basis. Consult the interface control document for more information.

1. Organization and Batching

Data feeds are provided to the MDR for processing. Weekly batches will be generated on Monday and will contain all transmissions received since the previous week.

1. Receiving Filters

Records with a referral date that falls within the 60 days immediately preceding the date the extract is created are included in the raw data submission to the MDR.

1. Initial File Preparation

To prepare the initial referral datasets; all referral feeds should be concatenated together and only the most recent record (freshest harvest date) is retained for each combination of host / referral number (HOST\_REFIEN) and host/appointment number (HOST\_APTIEN). Once this first phase of de-duplication occurs, a separate file is prepared, containing only the referring provider ID, Referral Number, Treatment DMISID and Appointment IEN. This file is the initial referral to appointment crosswalk table.

After writing out the initial referral to appointment crosswalk table; the data feeds are further de-duplicated; resulting in one record per referral. To do this, for each HOST\_REFIEN, the record with the lowest host/appointment number is retained.

After this de-duplication, records are processed according to section VII.

1. Update Process

The update process is similar to the initial file preparation. The first step is to concatenate the weekly data feeds from each CHCS Host into one dataset and append to the existing crosswalk table, deriving fields as necessary first. Once this is complete, the crosswalk table is recreated by keeping the record with the most recent harvest date.

To update the master dataset, the concatenated weekly feeds are appended to the existing master referral dataset. For each host/referral number, only the record with the lowest host/appointment number is retained. After completing this step, records are processed according to section VIII.

1. Data processing, Field Transformations and Deletions for MDR Core Database

This section of this functional specification describes the processing used to create the referral file for the MDR. No further processing is done on the crosswalk table.

The basic process for preparing the MDR Referral File involves archiving of auto-generated referral records, de-duplication and application of updates, merging to external reference files, and deriving data elements resulting from merges or other math.

Table 1 below describes the merge data files and associated matching rules.

**Table 1: Merge Rules for MDR Referral File Processing**

| **Merge** | **Merge basis** | **Additional Rules** |
| --- | --- | --- |
| MPI | Social Security Number and other demographics | This process uses the existing MPI code, and must be done prior to any other merging. See DEERS VM6 specification for more details. |
| DEERS VM6 | DEERS Person ID if available, otherwise use sponsor social security number where the relationship code is sponsor. | Use most recent VM6 file with no limits applied |
| DEERS LVM | DEERS Person ID where the FMP indicates the relationship. | Date matching is based on the referral date and matching segment. |
| Omni-CAD Format File | Referral FY and FM, FY/FM of MDR Omni CAD format file | Zip code and sponsor service aggregate, grouped into A, F, N (N, M and V) and O for all others. |
| DMISID Format File | Referral FY |  |
| Appointment Data | CHCS Host DMIS ID and Appointment IEN | There can be multiple appointments generated by a single referral. The processor should retain the data for the first appointment record associated with the referral. For each unique combination of CHCS Host DMIS ID and Appointment IEN, keep the first record by appointment date. |
| MTF Network Referrals | UIN |  |
| PCM Identity Lookup | End Date of Care is between the start and stop date of the PCM Identifier segment | Match of EDIPN |
| MEPR3\_SL\_fmt.txt file  /mdr/genesis/aprod/util |  | Apply format file to cln3 and refto3 |

Business rules for each of the appended fields that result from the merges above, are described in the body of table 2, or in an appendix, referenced in that table. Additional derived fields are also described in this table.

1. Record Layout and Content

The MDR Referral file is a SAS Dataset, with two members. The master dataset is contained in the member called “Referral”. Table 2 describes the format, file layout and field derivation rules for the MDR Referral data file.

Table 2: MDR Referral SAS Dataset

| **MDR Referral File Data Element** | **MDR SAS Name** | **Format** | **Source Element** | **Business Rule** |
| --- | --- | --- | --- | --- |
| Record ID | refnum | $11 | HOST\_REFIEN | Position 6-16 of the host concatenated with the referral internal entry number |
| Person ID | edi\_pn | $10 | PID (EDI\_PN) | If person ID is blank, fill with a space. |
| Treatment DMISID Host | apptdmisid | $4 | APTCLNDMIS |  |
| Patient Category Code | patcat | $3 | PATCATCD |  |
| Referral Date | refdate | $8 | RDT (Ref Date & Time) | Put into YYYYMMDD format based on the first 8 characters of the Referral date and time.  03/01/07 08:57 |
| Referral Time | reftime | $5 | RDT (Ref Date & Time) | Position 10-14 of the referral date and time. |
| CHCS HCDP | chcshcdp | $5 | HCDP |  |
| Order Number | ordnum | $12 | HOST\_ORDER # | Postion 6-17 of the host concatenated with the CHCS order # |
| Referral Start Date | begdate | $8 | START | YYYYMMDD |
| Referral End Date | enddate | $8 | STOP | YYYYMMDD |
| Number of Visits Authorized | visits | 2 | VST (# of Visits) |  |
| Access to Care Category | atc\_cat | $1 | ATC (Access to Care Category) |  |
| Referring from provider ID | refbyprv\_id | $9 | REFBY (CHCS Provider ID) |  |
| Referring from provider EDI\_PN | refbyprv\_edipn | $10 | REFBYEDIPN |  |
| MEPRS Code of Referring from Provider | refbyprv\_meprs | $4 | REFBYMEPRS |  |
| Referring from Provider Name | refbyprv\_name | $61 | REFBYPRV\_NAME |  |
| Referring from Clinic (MEPRS 4 Code) | cln | $4 | CLN |  |
| Clinical Priority | priority | $20 | PRIORITY |  |
| Referring from Host DMIS ID | chcshost | $4 | HOST(DMIS ID) |  |
| Referring to provider ID | reftoprv\_id | $9 | REFTO (CHCS Provider ID) |  |
| Referring to provider EDI\_PN | reftoprv\_edipn | $10 | REFtoEDIPN |  |
| MEPRS Code of Referring to Provider | reftoprv\_meprs | $4 | REFtoMEPRS |  |
| Referring to Clinic MEPRS | poc | $4 | POC |  |
| Referring to Clinic DMIS ID | poc\_dmis | $4 | POCDMIS |  |
| Refusal Date | refusdate | $8 | RFUDTTM (Refusal Date & Time) | Put into YYYYMMDD format based on the first 8 characters of the Refusal date and time.  03/01/07 08:57 |
| Refusal Time | refustime | $5 | RFUDTTM (Refusal Date & Time) | Position 10-14 of the refusal date and time. |
| Refusal Reason # | refusrsn | $2 | RFURESIEN (Refusal Reason #) |  |
| Associated Record ID | apptien | $10 | HOST\_APTIEN | Position 6-15 of the host DMIS ID concatenated with the Appointment ien. |
| Appointment Type | appttype | $10 | APTTYPE |  |
| Appointment Status | apptstat | $15 | APTSTATUS |  |
| Appointment Clinic MEPRS | apptmeprs | $4 | APTCLNMEPRS |  |
| Referring NPI, Type 1 | tbd | $10 | Blank Currently |  |
| Referring NPI, Type 2 | tbd | $10 | Blank Currently |  |
| CHCS Host DMISID | chcshost | $4 | HOST (DMISID) |  |
| Extract Date | extrdt | $8 | HARVESTDATE | YYYYMMDD Position 1-8 only |
| Referring DMISID | dmisid | $4 | Referring DMISID | No transformation |
| UIN | uin | $17 | UIN | dmisid concatenated with a “-“ and concatenated with position 6-17 of the raw UIN value. |
| Referred by Provider NPI | refbyprv\_npi | $10 | Referred By Provider NPI | No transformation |
| Referred by Provider Taxonomy | refbyprv\_tax | $10 | Referred by Provider Taxonomy | No transformation |
| Referral NPI | reftoprv\_npi | $10 | Referred to Provider NPI | No transformation |
| Referral Provider Taxonomy | reftoprv\_tax | $10 | Referred to Provider Taxonomy | No transformation |
| Patient SSN | patssn | $9 | Patient SSN | No transformation |
| Patient SSN Type Code | patssn\_type | $1 | Patient SSN Type Code | No transformation |
| Sponsor SSN | sponssn | $9 | Sponsor SSN | No transformation |
| Sponsor SSN Type Code | sponssn\_type | $1 | Sponsor SSN Type Code | No transformation |
| **Fields returned from MPI Merge** | | | | |
| Sponsor SSN | sponssn | $9 |  | See VM6 Specification. |
| Person Association Reason Code | parc | $2 |  | See VM6 Specification. |
| **Fields derived from LVM Merge** | | | | |
| DEERS Sponsor Service Aggregate | sponsvc | $1 | From LVM4 | Fill with DEERS sponsor service (aggregate) from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions. If no match, set to “X” |
| DEERS Health Care Delivery Program Code - Enrolled | deershcdp | $3 | From LVM4 | Fill with DEERS HCDP (enrolled) from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| DEERS Alternate Care Value | deersacv | $1 |  | Fill with DEERS Alternate Care Value from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions. BLANK FILL AFTER 1/1/2018 |
| DEERS Enrollment DMIS ID | deersenr | $4 |  | Fill with DEERS Enrollment DMIS ID from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| DEERS Beneficiary Category | bencatx | $3 |  | Fill with DEERS Beneficiary Category from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| DEERS Common Beneficiary Category | comben | $1 |  | Fill with DEERS Beneficiary Category Common from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| DEERS Zip Code | patzip | $5 |  | Fill with DEERS Zip Code from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| Enrollment Group | enr\_grp | $2 |  | Fill with enrollment group from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| Eligibility Group | elg\_grp | $2 |  | Fill with Eligibility Group from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| PCM Type | pcm\_type | $1 |  | Fill with PCM\_TYPE from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| HCDP - Assigned | hcdp\_assgn | $3 |  | Fill with assigned HCDP from LVM, if the referral date is between the begin and end date associated with the segment. See DEERS VM-6 spec, Sections G18 and G19 for segment and field positions |
| **Fields derived from Omni-CAD Merge** | | | | |
| Catchment Area ID | catch | $4 |  | If sponsvc=A then set equal to ACATCH, if sponsvc = F then set equal to FCATCH; if sponsvc in (M, N, V) then set equal to NCATCH, otherwise set equal to OCATCH. If zip code not found in MDR Omni-CAD, set equal to ‘0999’ |
| PRISM Area ID | prism | $4 |  | If sponsvc=A then set equal to APRISM, if sponsvc = F then set equal to FPRISM; if sponsvc in (M, N, V) then set equal to NPRISM, otherwise set equal to OPRISM. If zip code not found in MDR Omni CAD, set to ‘0999’ |
| Tnex Region | tnexreg | $1 |  | Based on matching FY, FM and zip code If zip code not found in MDR Omni CAD set to blank |
| Traditional Region | reg | $2 |  | Based on matching FY, FM and zip code If zip code not found in MDR Omni CAD set to 16. |
| MTF Service Area | mtfsvcarea | $4 |  | FY06+; If sponsvc=A then set equal to ACATCH, if sponsvc = F then set equal to FCATCH; if sponsvc in (M, N, V) then set equal to NCATCH, otherwise set equal to OCATCH. If zip code not found in MDR Omni CAD set to blank |
| Beneficiary T3 Region | ben\_t3\_reg | $2 |  | T3 region from Omi-CAD merge |
| Beneficiary T2017 region | ben\_t17\_reg | $2 |  | T17 Region from Omni CAD merge |
| **Fields derived from DMISID Table Merge** | | | | |
| Enrollment Site Service | enrsvc | $1 |  | UBU\_SVC, based on matching FY and enrollment site. Set to “X” if no match found. |
| Catchment Area MSMA | catchmsma | $3 |  | MSMA, based on matching FY and catchment area. Leave blank if no match found. |
| PRISM Area MSMA | prismmsma | $3 |  | MSMA, based on matching FY and PRISM area. Leave blank if no match found. |
| Referring MTF T3 Region | mtf\_t3\_reg | $2 |  | T3\_REG, based on matching FY and Referral MTF. |
| Referring MTF T17 Region | mtf\_t17\_reg | $2 |  | T17\_REG, based on matching FY and Referral MTF |
| Enrollment Site T3 Region | enr\_t3\_reg | $2 |  | No transformation |
| Enrollment Site T17 Region | enr\_t17\_reg | $2 |  | No transformation |
| **Fields from the PCM Identity Lookup Merge** | | | | |
| PCM NPI | pcm\_npi | $10 |  | PCM NPI |
| PCM Name | pcm\_name | $40 |  | PCM Name |
| **Fields derived from the Appointment Data Merge** | | | | |
| Appointment Date | apptdt | yyyymmdd |  |  |
| Date Appointment Made | apptmddt | yyyymmdd |  |  |
| **Fields derived from MTF Network Referrals Merge** | | | | |
| MTF Network Referral Flag | ref\_to\_mcsc | $1 |  | If a match is found in the MTF Network Referral data, set the flag to 1, otherwise set the flag to 0. |
| **Internally Derived Fields** | | | | |
| Referral CY | refcy | $4 |  | Append positions 7-8 to ‘20’. |
| Referral CM | refcm | $2 |  | Positions 4-5 of RDT |
| Referral Day of Week | refwkday | $1 |  | 1=Sunday, 2=Monday, 3=Tuesday, 3=Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 7=Sunday |
| Referral FY | reffy | $4 |  | If refcm is 10, 11, 12 then year=refcy-1; else reffy=refcy |
| Referral FM | reffm | $2 |  | If refcm is 10, 11, 12 then reffm=refcm-9; else reffm=refcm+3 |
| Referring Clinic (MEPRS 3 Code) | cln3 | $3 |  | 1st three characters of Referring Clinic (MEPRS 4 Code) |
| MEPRS 3 Code Referred to | refto3 | $3 | Refto | 1st three characters of the MEPRS Code Referred To (refto). |
| Referral Type | reftype | $1 | REFTYPE | Derive value from mapping table in Appendix A |
| Status | status | $1 | STATUS | Derived value from mapping table in Appendix A. |
| Refusal Status | refusstat | $1 | RFUSTAT (Refusal Status) | Set to 0 if MTF DECLINED; 1 if NON-MTF DECLINED and 2 if NETWORK DECLINED |
| Appointment Request Status | apptreqstat | $2 | APTRQSTAT | Derived value from mapping table in Appendix A. |
| ACV Group | acvgroup | $2 |  | If referral date is >=1/1/2018 then:f enr\_grp is “P” then set to “PR” elseif enr\_grp is “L” then set to “PL” elseif enr\_group=”U” then set to “DP” elseif (bencat common=4 and pcm\_type=N) then “R” elseif pcm\_type=”O” then “R” elseif elg\_grp in (“R” “S”) then “O” else “O”. Prior to 1/1/2018 see appendix |
| Refer from Service Line | refby\_svcline | $5 |  | Apply service line format file to cln3 field (i.e. put(cln3,$slfmt.)) |
| Refer to Service Line | refto\_svcline | $5 |  | Apply service line format file to refto3 field (i.e. put(refto3,$slfmt.)) |

The file layout for the referral to appointment crosswalk is described in table 3. The member name for this file is “xwalk”.

Table 3: MDR Referral to Crosswalk SAS Dataset

| **MDR Referral File Data Element** | **MDR SAS Name** | **Format** | **Source Element** | **Business Rule** |
| --- | --- | --- | --- | --- |
| Record ID | refnum | $11 | HOST\_REFIEN | Position 6-16 of the host concatenated with the referral internal entry number |
| Referring Provider | ref\_prov | $9 | REFBY (CHCS Provider ID) | Rename refbyprv\_id to ref\_prov |
| Treatment DMISID | apptdmisid | $4 | APTCLNDMIS |  |
| Associated Record ID | apptien | $10 | HOST\_APTIEN | Position 6-15 of the host DMIS ID concatenated with the Appointment ien. |
| Extract Date | extrdt | $8 | HARVESTDATE |  |
| Referring from Host DMIS ID | chcshost | $4 | HOST (DMISID) |  |

1. Data Marts

Data feeds are prepared in MDR processing and provided to the M2 on a weekly basis, as described in M2 Referral File Specification.

1. Special Outputs

None.

1. Quality Review

TBD

1. Directory location

/mdr/pub/referral

/mdr/apub/referral

/mdr/raw/referral

Appendix A

**Referral Type**

|  |  |
| --- | --- |
| **Type** | **Description** |
| 0 | Manual |
| 1 | Non-Enrolled Automatic |
| 2 | Enrolled Automatic |
| 3 | Enrolled/Non-Enrolled Automatic |
| 4 | Self-Referral Booking |
| 5 | OPS Force Booking |
| 6 | EWRAS Referral |

**Status**

|  |  |
| --- | --- |
| **Status** | **Description** |
| 1 | PENDING |
| 1 | KEPT |
| 0 | CANCEL |
| 7 | NO-SHOW |
| 3 | WALK-IN |
| 4 | S-CALL |
| 6 | TEL-CON |
| L | LWOBS |
| A | ADMIN |
| 1 | OCC-SVC |
| 1 | BOOKED NON-MTF |
| 1 | BOOKED |

**Appointment Request Status**

| **Status** | **Description** |
| --- | --- |
| 1 | PENDING REVIEW |
| 2 | UNABLE TO APPOINT |
| 3 | APPOINTMENT CHANGED |
| 4 | APPOINTMENT CANCELLED |
| 5 | NO SHOW |
| 6 | APPOINTMENT KEPT |
| 7 | WAIT LIST |
| 8 | APPOINTED |
| 9 | APPOINT TO MTF |
| 10 | DEFER TO NETWORK |
| 11 | SPACE AVAILABLE |
| 12 | INFO NEEDED |
| 13 | NO APPOINTMENT REQUIRED |
| 14 | REFER TO SUBSPECIALTY |
| 15 | ADVICE ONLY |
| 16 | NOT REVIEWED |
| 17 | BOOKED TO REMOTE SITE |
| 18 | PATIENT REFUSED APPOINTMENT |
| 19 | LEAVE WITHOUT BEING SEEN |
| 20 | REFERRAL DELETED |
| 21 | ADMIN CLOSURE - 30 DAY AUTO |
| 22 | ADMIN CLOSURE - 45 DAY AUTO |
| 23 | DEFERRED - RESULTS RECEIVED |
| 24 | ADMIN CLOSURE - 90 DAY AUTO |
| 25 | ADMIN CLOSURE - NOT RESULTED |
| 26 | CANCELLED |
| 27 | ADMIN CLOSURE - 60 DAY AUTO |

Appendix B: ACV Logic for Referral Dates before 1/1/2018

For FY03 and before:

If ACV = A, D, or E then “PR”

Else if ACV = G or L then “PL”

Else if ACV = U then “DP”

Else if Ben Cat Common = 4 then “R”

Else “O”

For FY04 and after:

If ACV = A, E, H, or J then “PR”

Else if ACV = B or F then “OP”

Else if ACV = G or L then “PL”

Else if ACV = U then “DP”

Else if ACV = R or V then “O”

Else if ACV = M or Q then “R”

Else if Ben Cat Common = 4 then “R”

Else “O”