Vitals
for the MHS Mart (M2)
(Version 2.00.08)

Future Specification

Revision History

Version	Date	Originator	Para/Tbl/Fig	Description of Change
1.00.00	3/19/2013	W. Funk	• Whole document	• Initial version
1.01.00	4/4/2013	K. Hutchinson for W. Funk	• Table 2	• Modified ACV Group for ACV R and V
1.01.01	4/12/2013	W. Funk	• Table 1 • Table 2	• Noted that person ID is only available in the restricted universe. • Changed the merge rule for OCO and IIW data elements to use a pseudo identifier, rather than a direct identifier. Indicated that BMI should be averaged rather than summed. Clarified lengths of numeric data elements.
1.01.02	4/26/2013	W. Funk	• Table 1 • Table 2	• Replace Sponsor SSN with Sponsor ID • Replace Patient SSN with Beneficiary ID • change TOBACCO_AMOUNT to length 20
1.01.03	5/30/2013	K. Hofmann	• Table 1 • Table 2	• Label Treatment DMIS ID as Tmt DMIS ID. • Get Enrollment Site Parent Name and Tmt Parent DMIS ID Name from merges using Enrollment Site and Tmt DMIS ID respectively. • Add date criteria to IIW merge. • Change labels for OCO objects. • Note that future specs will use pseudo person ID to match to CTS file instead of pseudo sponsor ID.
1.01.04	7/18/2013	W. Funk	• Table 2	• Changed rule for OCO Deployed Data Fields
1.01.05	1/30/2017	W. Funk	• Table 1 • Table 2	• Added MEPRS4 Code • Added MEPRS3 Code and Description.
1.01.06	4/5/17	K. Hofmann	• Table 1	• Changed format of temperature to include the first decimal place • Added Most Recent BMI Record Flag
1.01.07	5/25/17	K. Hofmann	• Table 2	• Added MEPRS4 Code Description
1.01.08	8/21/2017	B. Ross for W. Funk	• Table 1 • Table 2	• Added new fields related to NDAA and region transition • Hid region fields
1.01.09	3/26/2018	K. Hofmann	• Table 2	• Added header for Table 2 • Changed format for eligibility group and enrollment group • Pointed region variables to the correct MDR SAS variable names • Fixed ACV Group derivation for values of "Desig Prov" and "Overseas Remote"
2.00.01	12/18/2018	W. Funk	• Table 2	• Added MHS GENESIS content
2.00.02	3/02/2019	T. Comer for W. Funk	• Table 2	• Slight adjustments to variable names for MHS GENESIS content
2.00.03	6/29/201	W. Funk	• Table 2	• Added more DMIS ID Hierarchy fields
2.00.04	2/2/2022	T. Comer	• Table 2	• Adjusted length of eligibility and enrollment group variables from 3 to 1
2.00.05	8/12/2022	T. Comer	• Table 2	• Updated Menstrual Period, Last logic
2.00.06	8/23/2024	T. Comer	• Table 2	• Updated oxygen_sat, pulse_periph, temperature_f logic
2.00.07	12/3/2024	T.Comer	• Table 1	• Removed Table 1; renamed Table 2 to Table 1 • Added pseudo_mrn field

Version	Date	Originator	Para/Tbl/Fig	Description of Change
2.00.08	01/14/2025	T.Comer	• Table 1	• Added note to hid T3 region fields • Added T5 region fields

Vitals Data

I.   Source: The Vitals data is provided to M2 by the MDR.

II.   File Format: Regardless of the length specified, all fields are variable length and delimited by "|". A null field will simply have an end of field delimiter "|" immediately following the previous field's end of field delimiter.

III.   File Content: The M2 Vitals table will contain vital signs information from the MDR CDR Vitals file and the MDR GENESIS Vitals file.

IV.   Organization and Batching: Each week, two feed files are provided; a "delete file" and an "add file". The "delete file" contains record identifiers for rows of the vitals table that are to be removed in that week's process, while the "add file" contains records that are to be added in the week's process. These feed files will contain both CDR Vitals and GENESIS Vitals.

V.   Frequency of Processing: Refreshes are weekly, or whenever the CDR and GENESIS Vitals tables are updated in the MDR.

VI.   Filters: All CDR and GENESIS Vitals records are provided to M2, and no additional filters are applied.

VII. Updating the Master Tables: For the initial loading of the M2 Vitals table, there will only be an "add file". Thereafter, each week records from the "delete file" will be matched to the existing M2 Vitals table by Record ID. If a match is found in the master Vitals table, the Vitals record is deleted. After applying the delete file, records from the "add file" are simply added with field transformations as specified below performed. The order of operations is important. The delete file is always applied first, and then records are appended from the "add file."

VIII. Feed Record Layout and Content. ~~Table 1 contains the layout of the "delete" file.~~ Table 1 contains the layout of the file.

~~**Table 1: M2 Vitals Delete File Layout**~~

~~M2 Data Element~~	~~Format~~	~~SAS Name from MDR for CDR Data~~	~~SAS Name from MDR for GENESIS Data~~	~~Processing Rule/Comments~~
~~Record ID~~	~~$20~~	~~CDR_VITALS_ID~~	~~ENCOUNTER_SK~~	~~No transformation~~

Table 1: M2 Vitals ~~Add~~ File Layout

M2 Data Element	Format	SAS Name from MDR for CDR Data	SAS Name from MDR for GENESIS Data	Processing Rule/Comments
Record ID	$20	CDR_VITALS_ID	ENCOUNTER_SK	No transformation.
ACV	$1	ACV	ACV	No transformation.
Age Group Code	$1	AGEGRP	AGEGRP	No transformation.
Alcohol Annoy	$1	ALCOHOL_ANNOY	TBD	No transformation.
Alcohol Cut Down	$1	ALCOHOL_CUT_DOWN	TBD	No transformation.
Alcohol Eye Opener	$1	ALCOHOL_EYE_OPENER	TBD	No transformation.
Alcohol Guilt	$1	ALCOHOL_GUILT	NA	No transformation.

M2 Data Element	Format	SAS Name from MDR for CDR Data	SAS Name from MDR for GENESIS Data	Processing Rule/Comments
Alcohol Use	$1	ALCOHOL_USE	ALCOHOL_USE	No transformation.
Appointment Date	YYYYMMDD	APPTDT	ENC_DT	No transformation for M2.
Associated CAPER Record ID	$10	APPTIDNO	ENCOUNTER_SK	No transformation.
Beneficiary Category	$3	BENCAT	BENCAT	No transformation.
CDR Appointment ID	$20	CDR_APPT_ID	N/A	No transformation.
Bencat Common	$1	COMBEN	COMBEN	No transformation.
Beneficiary Zip Code	$5	DEERSZIP	PATZIP	No transformation.
Enrollment SIte	$4	DENRSITE	DENRSITE	No transformation.
Blood Pressure, No Position	$7	DIASTOLIC_BLANK; SYSTOLIC_BLANK	DIASTOLIC_BLANK; SYSTOLIC_BLANK	No transformation In M2. In MDR, SYSTOLIC_BLANK / DIASTOLIC_BLANK
Blood Pressure, Sitting	$7	DIASTOLIC_SIT; SYSTOLIC_SIT	DIASTOLIC_SIT; SYSTOLIC_SIT	No transformation in M2. In MDR, SYSTOLIC_SIT / DIASTOLIC_SIT
Blood Pressure, Standing	$7	DIASTOLIC_STAND; SYSTOLIC_STAND	DIASTOLIC_STAND; SYSTOLIC_STAND	No transformation in M2. In MDR, SYSTOLIC_STAND / DIASTOLIC STAND
Blood Pressure, Supine	$7	DIASTOLIC_SUPINE; SYSTOLIC_SUPINE	DIASTOLIC_SUPINE; SYSTOLIC_SUPINE	No transformation in M2. In MDR, SYSTOLIC_SUPINE / DIASTOLIC SUPINE
Tmt DMISID	$4	DMISID	MTF	No transformation
Sponsor Service	$1	DSPONSVC	N/A	No transformation
Sponsor Service, Aggregate	$1	DSVCAGG	SPONSVC	No transformation.
Person ID	$10	EDI_PN	EDIPN	No transformation. In restricted universe only
Entry Date	YYYYMMDD	ENTRY_DT	N/A	No transformation.
Entry Time	8	ENTRY_TIME	N/A	No transformation.
FY	$4	FY	FY	No transformation.
FM	$2	FM	FM	No transformation.
Gender	$1	GENDER	GENDER_R	No transformation.
HCDP - Enrolled	$3	HCDP	HCDP	No transformation.
Height	4	HEIGHT_INCHES	HEIGHT_INCHES	No transformation
CHCS Host	$4	HOSTDMIS	N/A	No transformation. For M2 feed, in MDR fill GENESIS data with "GEN"
Oxygen Saturation	3	OXYGEN_SAT	OXYGEN_SAT; OXYGEN_SAT_REST	If OXYGEN_SAT is populated, use OXYGEN_SAT. Else use OXYGEN_SAT_REST.
Pain Scale	2	PAIN	PAIN_SCORE	No transformation
Age	3	PATAGE	PATAGE	No transformation

M2 Data Element	Format	SAS Name from MDR for CDR Data	SAS Name from MDR for GENESIS Data	Processing Rule/Comments
Date of Birth	YYYYMMDD	PATDOB	PATDOB	No transformation
Beneficiary ID	$9	PATSSN	PATSSN	No transformation. In restricted universe only.
Peak Flow	8	PEAK_FLOW	N/A	No transformation
Heart Rate, No Position	4	RATE_BLANK	PULSE_PERIPH	No transformation
Heart Rate, Sitting	4	RATE_SIT	PULSE_SIT	No transformation
Heart Rate, Standing	4	RATE_STAND	PULSE_STAND	No transformation
Heart Rate, Supine	4	RATE_SUPINE	PULSE_SUPINE	No transformation
Relationship to Sponsor	$1	RELATIONSHIP	N/A	No transformation
Respiratory Rate	8	RESPIRATORY_RATE	RESP_RATE	No transformation
Heart Rhythm, No Position	$1	RHYTHM_ID_BLANK	RHYTHM_ID_BLANK	if find(rhythm_id_blank,'irregularly irregular','i') ge 1 then rhythm_id_blank_use='Y'; else if find(rhythm_id_blank,'irregular','i') ge 1 then rhythm_id_blank_use='I'; else if find(rhythm_id_blank,'regular','i') ge 1 then rhythm_id_blank_use='R'; else rhythm_id_blank_use='';
Heart Rhythm, Sitting	$1	RHYTHM_ID_SIT	N/A	No transformation
Heart Rhythm, Standing	$1	RHYTHM_ID_STAND	N/A	No transformation
Heart Rhythm, Supine	$1	RHYTHM_ID_SUPINE	N/A	No transformation
Sponsor ID	$9	SPONSSN	SPONSSN	No transformation. In restricted universe only.
Temperature	5.1	TEMPERATURE_F	TEMP_ARTERY_F; TEMP_TYMPANIC_F	If TEMP_ARTERY_F is populated, use TEMP_ARTERY_F. Else use TEMP_TYMPANIC_F.
Temperature Site	$1	TEMP_SITE_ID	TEMP_SITE_ID	No transformation.
Tobacco User	$1	TOBACCO	TOBACCO	If TOBACCO fields contains 'NO', 'NEVER', or 'N', then set to "N"
Tobacco Amount Used	$20	TOBACCO_AMOUNT	TBD	No transformation
Tobacco Desire to Quit	$1	TOBACCO_QUIT	TBD	No transformation
Tobacco Type Used	$20	TOBACCO_TYPE	TBD	No transformation

M2 Data Element	Format	SAS Name from MDR for CDR Data	SAS Name from MDR for GENESIS Data	Processing Rule/Comments
Weight	4	WEIGHT_LBS	WEIGHT_LB WEIGHT_EST_LB WEIGHT_DOSING_LB	If WEIGHT_LB is populated, use WEIGHT_LB. Else if WEIGHT_EST_LB is populated, fill with WEIGHT_EST_LB. Else if WEIGHT_DOSING_LB is populated, fill field with WEIGHT_DOSING_LB. Else leave blank.
MEPRS4 Code	$4	MEPRSCD	MEPRSCD	No transformation
Most Recent BMI Record Flag	$1	RECENT_BMI	RECENT_BMI	No transformation
Eligibility Group	$1	ELG_GRP	ELG_GRP	No transformation
Enrollment Group	$1	ENR_GRP	ENR_GRP	No transformation
Enrollment PCM Type	$1	PCM_TYPE	PCM_TYPE	No transformation
HCDP - Assigned	$3	HCDP_ASSGN	HCDP_ASSGN	No transformation
Beneficiary T3 Region	$2	BEN_REG_T3	BEN_T3_REG	No transformation; HIDE this field
Beneficiary T2017 Region	$2	BEN_REG_T17	BEN_T17_REG	No transformation
Enrollment Site T3 Region	$2	ENR_REG_T3	ENR_T3_REG	No transformation; HIDE this field
Enrollment Site T2017 Region	$2	ENR_REG_T17	ENR_T17_REG	No transformation
Tmt DMIS ID T3 Region	$2	MTF_REG_T3	mtf_t3_reg	No transformation; HIDE this field
Tmt DMIS ID T2017 Region	$2	MTF_REG_T17	mtf_t17_reg	No transformation
ACV Group	$15	ACVGROUP	ACVGROUP	No transformation in M2. In MDR, when preparing the M2 feed, map PR to Prime; DP to Designated Provider, OP to Overseas Remote, PL to Plus, O to Other and R to Reliant.
Tympanic Temperature (degrees Fahrenheit)	5.1	N/A	TEMP_TYMPANIC_F	No transformation
Primary Pain Location	$80	N/A	PAIN_LOC	No transformation
Corrective Lenses	$80	N/A	CORR_LENSES	No transformation
Heart Rate Monitored	$3	N/A	HEART_RATE_MON	No transformation
Eye, Right Visual Acuity	$6	N/A	VIS_ACUITY_R	No transformation
Eye, Left Visual Acuity	$6	N/A	VIS_ACUITY_L	No transformation
Menstrual Period, Last	$8	N/A	MENS_LAST	If data cannot be put into date format (MM/DD/YY), then make field blank.
Menstrual Status	$20	N/A	MENS_STAT	No transformation

M2 Data Element	Format	SAS Name from MDR for CDR Data	SAS Name from MDR for GENESIS Data	Processing Rule/Comments
MHS GENESIS Flag	$1	N/A	N/A	In M2, value will be Y or N. In data from the MDR GENESIS will have a value of 1 and other non-GENESIS records will have a value of 0.
Financial Indicator Number (FIN)	$40	N/A	FINANCIAL_NBR	No transformation
Encounter Type	$40	N/A	ENCOUNTER_TYPE	No transformation
Medical Record Number	$40	N/A	MRN	No transformation
Pseudo MRN	$12	N/A	PSEUDO_MRN	No transformation
Beneficiary T5 Region	$2	BEN_REG_T5	BEN_T17_R5	No transformation
Enrollment Site T5 Region	$2	ENR_REG_T5	ENR_T5_REG	No transformation
Tmt DMIS ID T5 Region	$2	MTF_REG_T5	MTF_T5_REG	No transformation

IX. <u>Appended Fields</u>: The M2 has many data fields that are viewed in the M2 either by joining to another table, or through data element additions made during loading of the data. Table 2 describes these elements and the rules to create them.

Table 3: Appended/Inferred data elements visible in M2 but not in the data feed from the MDR

Data Element	Transformation
Beneficiary First Name	Join to MPI table by Person ID.
Beneficiary Last Name	Join to MPI table by Person ID.
Beneficiary Name	Last Name, First Name (e.g., DOE, JOHN).
Beneficiary Region	HIDE See M2 Omni-CAD specification for business rules.
Beneficiary HSSC Region	HIDE See M2 Omni-CAD specification for business rules.
Body Mass Index	(Weight/ (Height*Height))*703. Set aggregation rule to average rather than sum
Catchment Area ID	See M2 Omni-CAD specification for business rules.
Catchment Area Name	See M2 DMIS ID Index specification for business rules.
Catchment Area Command	See M2 DMIS ID Index specification for business rules.
Catchment Area Military Service	See M2 DMIS ID Index specification for business rules.
Catchment Area MSMA	See M2 DMIS ID Index specification for business rules.
Catchment Area Readiness CMD	See M2 DMIS ID Index specification for business rules.
Catchment Area Readiness Service	See M2 DMIS ID Index specification for business rules.
Catchment Area Base Market Code	See M2 DMIS ID Index specification for business rules.
Catchment Area Expanded Market Code	See M2 DMIS ID Index specification for business rules.
Catchment Area Market Name	See M2 DMIS ID Index specification for business rules.
Catchment Area Reporting Market Code	See M2 DMIS ID Index specification for business rules.
Catchment Area Reporting Market Name	See M2 DMIS ID Index specification for business rules.
Catchment Area Type of Market Code	See M2 DMIS ID Index specification for business rules.

Data Element	Transformation
Catchment Area Type of Market Name	See M2 DMIS ID Index specification for business rules.
Enrollment Site Name	See M2 DMIS ID Index specification for business rules.
Enrollment Site Command	See M2 DMIS ID Index specification for business rules.
Enrollment Site DHP Code	See M2 DMIS specification for business rules.
Enrollment Site Financial Parent	See M2 DMIS ID Index specification for business rules.
Enrollment Site Financial Parent Name	See M2 DMIS ID Index specification for business rules.
Enrollment Site Military Service	See M2 DMIS ID Index specification for business rules..
Enrollment Site Region	HIDE See M2 DMIS ID Index specification for business rules.
Enrollment Site MSMA	See M2 DMIS ID index specification for business rules.
Enrollment Site Parent	See M2 DMIS ID index specification for business rules.
Enrollment Site Parent Name	See M2 DMIS ID index specification for business rules.
Enrollment Site Readiness CMD	See M2 DMIS ID Index specification for business rules.
Enrollment Site Readiness Service	See M2 DMIS ID Index specification for business rules.
Enrollment Site Readiness Parent	See M2 DMIS ID Index specification for business rules.
Enrollment Site Base Market Code	See M2 DMIS ID Index specification for business rules.
Enrollment Site Expanded Market Code	See M2 DMIS ID Index specification for business rules.
Enrollment Site Market Name	See M2 DMIS ID Index specification for business rules.
Enrollment Site Reporting Market Code	See M2 DMIS ID Index specification for business rules.
Enrollment Site Reporting Market Name	See M2 DMIS ID Index specification for business rules.
Enrollment Site Type of Market Code	See M2 DMIS ID Index specification for business rules.
Enrollment Site Type of Market Name	See M2 DMIS ID Index specification for business rules.
Enrollment Site HSSC Region	HIDE See M2 DMIS ID specification for business rules.
IIW Flag	See M2 IIW specification for business rules.
Market Area ID	See M2 Omni-CAD specification for business rules.
MEPRS3 Code	1st 3 characters of MEPRS4 Code
MEPRS3 Code Description	Join to MEPRS 3 Code Reference table by FY and MEPRS3 Code.
MEPRS4 Code Description	Join to MEPRS 4 Code Reference table by FY, Tmt DMIS ID and MEPRS4 Code.
MTF Service Area	See M2 Omni-CAD specification for business rules.
MTF Service Area Name	See M2 DMIS ID specification for business rules.
MTF Service Area Base Market Code	See M2 DMIS ID specification for business rules.
MTF Service Area Expanded Market Code	See M2 DMIS ID specification for business rules.
MTF Service Area Reporting Market Code	See M2 DMIS ID specification for business rules.
MTF Service Area Type of Market Code	See M2 DMIS ID specification for business rules.
Number of Records	Set to 1 for all records.
Prime Service Area	See M2 Omni-CAD specification for business rules.
PRISM Area ID	See M2 Omni-CAD specification for business rules.
PRISM Area Name	See M2 DMIS specification for business rules.
PRISM Area Command	See M2 DMIS specification for business rules.
PRISM Area Military Service	See M2 DMIS specification for business rules.
PRISM Area MSMA	See M2 DMIS specification for business rules. Populated FY04+.
PRISM Area Readiness CMD	See M2 DMIS ID Index specification for business rules.

Data Element	Transformation
PRISM Area Readiness Service	See M2 DMIS ID Index specification for business rules.
PRISM Area Base Market Code	See M2 DMIS ID Index specification for business rules.
PRISM Area Expanded Market Code	See M2 DMIS ID Index specification for business rules.
PRISM Area Market Name	See M2 DMIS ID Index specification for business rules.
PRISM Area Reporting Market Code	See M2 DMIS ID Index specification for business rules.
PRISM Area Reporting Market Name	See M2 DMIS ID Index specification for business rules.
PRISM Area Type of Market Code	See M2 DMIS ID Index specification for business rules.
PRISM Area Type of Market Name	See M2 DMIS ID Index specification for business rules.
Pseudo Person ID	Encryption algorithm applied to Person ID.
Pseudo Sponsor ID	Encryption algorithm applied to Sponsor ID.
Reservist Status Code	See M2 Reservist specification for business rules.
Special Operations Code	See M2 Reservist specification for business rules.
Tmt DMIS ID Name	See M2 DMIS ID specification for business rules.
Tmt DMIS ID Command	See M2 DMIS ID specification for business rules.
Tmt DMIS ID DHP Code	See M2 DMIS ID specification for business rules.
Tmt DMIS ID HSSC Region	HIDE See M2 DMIS ID specification for business rules.
Tmt DMIS ID Military Service	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID MSMA	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Financial Parent	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Financial Parent Name	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Parent	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Parent Name	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Readiness CMD	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Readiness Service	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Base Market Code	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Expanded Market Code	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Market Name	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Reporting Market Code	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Reporting Market Name	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Type of Market Code	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Type of Market Name	See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID HSSC Region	HIDE See M2 DMIS ID Index specification for business rules.
Tmt DMIS ID Region (HIDE)	HIDE See M2 DMIS ID Index specification for business rules.
TPR Flag	See M2 Omni-CAD specification for business rules.
Ever Deployed Flag (OCO)	See M2 CTS specification for business rules.
Days Since Most Recent OCO Depl	See M2 CTS specification for business rules. This is a measure.
Days Since Return from OCO Depl	See M2 CTS specification for business rules. This is a dimension.
Cumulative OCO Deployed Days	See M2 CTS specification for business rules.
OCO Deployed Flag	See M2 CTS specification for business rules.

X.   Quality Review

- Record counts should match those contained in the transmittal letter representing each feed

- After applying the update files, the record counts in the M2 Vitals table should match the record counts in the MDR Vitals table.
- The first and last 10 records in the files should be visually inspected to ensure proper formatting after loading
- The number of records should always be >0

XI.   File Location

Health Care Services / Direct Care / CDR Vitals

XII.   Special Outputs: N/A