

MHSPHP Background

The Military Health System Population Health Portal (MHSPHP) methodology is based on 2012 Healthcare Effectiveness Data and Information Set (HEDIS®) criteria. These are a set of criteria used to benchmark treatment facilities using a common methodology and should not be confused with clinical practice guidelines.

Diabetes Care

A set of comprehensive diabetes benchmarking measurements were selected for diabetic patients age 18-75. As a set they provide a comprehensive view of the clinical management of patients diagnosed with diabetes. The “action report” provided to MTFs and MCSCs on the MHSPHP includes information regarding annual A1c testing, A1c control, LDL screening and control, retinal eye exams, and monitoring of kidney disease for MTF enrollees, at least age 1, identified with diabetes, regardless of continuous enrollment.

Measure Definition:

- Percent of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with at least one A1c test during the past year.
- Percent of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with most recent A1c value > 9.0% or no A1c test during the past year.
- Percent of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with most recent A1c value <7.0%. (Selected population. See exclusions below)
- Percent of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with most recent A1c value <8.0%.
- Percent of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, who had their most recent LDL-C lab performed during the past year.
- Percent of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with most recent LDL-C value < 100 mg/dl. Enrollees with no test on record will be assumed to be above 100 mg/dl.

Benchmark:

HEDIS® 50th-75th-90th percentiles: National Committee for Quality Assurance (NCQA), State of Health Care Quality, 2011.

Benchmark	HEDIS Percentiles (50-75-90)
Annual A1c	90.1% ---92.9%---94.2%

Benchmark	HEDIS Percentiles (50-75-90)
Annual LDL-C	85.8%---88.4%---91.0%
LDL-C < 100mg/dl	48.0%---53.3%---57.2%
A1c < 7.0	43.1%---47.2%---51.0%
A1c < 8.0	63.4%---67.7%---72.0%
A1c > 9.0 or No Annual Exam <i>A lower rate indicates better performance (i.e., low rates of poor control indicate better care). Therefore, the 10th percentile is a better performing level than the 90th percentile for this measure. This runs in the opposite direction of all other measures, therefore the percentiles are inverted on the MHSPHP to make higher score better.</i>	HEDIS[®] Percentiles (10-25-50) 16.8%---21.6%---26.0% Inverted: 74.0%---78.4%---83.2%

Numerators (A1c):

- ➔ Number of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, who had at least one A1c test during the past year
- ➔ Number of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with their most recent A1c value > 9.0% or no A1c test in the past year
- ➔ Number of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-64, with their most recent A1c value < 7.0%, performed sometime during the past year. (Note: Denominator is different from the other control measures. Patients must “not” meet certain criteria to be included in this measure. See A1c<7% exclusion criteria below.)
- ➔ Number of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with their most recent A1c value <8.0%, performed sometime during the past year

Numerators (LDL-C)

- ➔ Number of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with at least one LDL-C test during the past year
- ➔ Number of patients enrolled to TRICARE Prime with Type 1 or Type 2 diabetes, age 18-75, with their most recent LDL-C lab value < 100 mg/dl (performed sometime during the past year)

Denominator:

Number of patients, age 18-75, who were continuously enrolled in TRICARE Prime during the past 12 months with Type 1 or Type 2 diabetes. Two types of data are used to identify members with diabetes, pharmacy data and claims/encounter data. A patient only needs to be identified by one source, pharmacy data or encounter/claims data, to be included in the

measure. A patient whose enrollment lapses for more than one month (30 days) during each previous 12-month period of enrollment is not considered continuously enrolled.

Notes:

- ➔ Lab values are not used to identify diabetics, because of the high false positive rate associated with this method.
- ➔ The A1c <7.0 measure has a separate denominator. Diabetics in this denominator will not meet any of the following exclusion criteria:

A1c<7% exclusion criteria:

To be evaluated against the A1c values <7.0% control indicator, patients must NOT fall into one or more of the following categories:

- ➔ 65years of age and older as of the last day of the measurement period.
- ➔ Discharged following coronary artery bypass graft (CABG) or percutaneous coronary intervention (PCI) in the measurement year or the year prior to the measurement year. Inpatient CABG cases only. Includes all cases of PCI regardless of setting.
- ➔ Ischemic vascular disease (IVD). Enrollees who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.
 - At least one outpatient visit with an IVD diagnosis or
 - At least one acute inpatient visit with an IVD diagnosis
- ➔ For the following conditions patients must have had at least one encounter, in any setting with any code, to identify the condition. The diagnosis can occur at any time during the patient's history, through the last day of the measurement period.
 - Chronic Heart Failure (CHF)
 - Prior myocardial infarction (MI)
 - Chronic Renal Failure/End Stage Renal Disease (CRF/ESRD)
 - Dementia
 - Blindness
 - Amputation – lower extremity

Criteria to identify patients with diabetes via encounter data (within the past 24 months):

- ➔ Two or more face to face encounters with different dates of service in an outpatient setting
- ➔ Two or more face to face encounters in a non-acute inpatient setting
- ➔ One acute inpatient visit

➔ One Emergency Department (ED) visit

Pharmacy Data Criteria:

Prescription medications will also be used to identify diabetics. These include ambulatory prescriptions dispensed during the past 24 month period for any of the following:

Description	Prescription	
Alpha-glucosidase inhibitors	acarbose	miglitol
Amylin analogs	pramlinitide	
Antidiabetic combinations	glimepiride-pioglitazone glimepiride-rosiglitazone glipizide-metformin glyburide-metformin	metformin-pioglitazone metformin-rosiglitazone metformin-sitagliptin
Insulin	insulin aspart insulin aspart-insulin aspart protamine insulin detemir insulin glargine insulin glulisine insulin inhalation insulin isophane beef-pork insulin isophane human insulin isophane pork	insulin isophane-insulin regular insulin lispro insulin lispro-insulin lispro protamine insulin regular beef-pork insulin regular human insulin regular pork insulin zinc beef-pork insulin zinc extended human insulin zinc human insulin zinc pork
Meglitinides	nateglinide	repaglinide
Miscellaneous antidiabetic agents	exenatide liraglutide sitagliptin	
Sulfonylureas	acetohexamide chlorpropamide glimepiride glipizide	glyburid tolazamide tolbutamide
Thiazolidinediones	pioglitazone	rosiglitazone

Note: Glucophage/metformin is not included because it is used to treat conditions other than diabetes; patients with diabetes on these medications are identified through diagnosis coding only.

Exclusions

- Exclude patients with a diagnosis of polycystic ovaries if they did not have any face-to-face encounters that were coded for diabetes, in any setting, in the past 2 years. A diagnosis of polycystic ovaries can occur at any time in the patient's history, but must have occurred by the last day of the measurement period.
- Exclude patients with steroid induced diabetes, gestational diabetes, prediabetes, or metabolic syndrome if they did not have any face-to-face encounters that were coded for diabetes, in any setting, in the past 2 years. A diagnosis of steroid induced diabetes, gestational diabetes, prediabetes, or metabolic syndrome can occur any time during the past 2 years, but must have occurred by the last day of the measurement period.

Data Sources:

- Defense Eligibility Enrollment Registration System (DEERS)
- Standard Inpatient Data Record (SIDR) (M2)
- Standard Ambulatory Data Record (SADR) (M2)
- Composite Occupational Health and Operational Risk Tracking (COHORT)
- Comprehensive Ambulatory/Professional Encounter Record (CAPER) (M2)
- Purchased Care Claims Data (NETWORK) (M2)
- Composite Health Care System (CHCS) Managed Care Platform National Enrollment Database (NED) module
- MHS CHCS laboratory module
- Pharmacy Data Transcription Service (PDTS) (M2) (Includes prescriptions received from MTF, network and mail order pharmacies)
- AHLTA Vitals (MDR)

Methodology:

- Use DEERS to identify patients enrolled to specific MTFs and MCSCs
- Use M2 (CAPER, SADR, SIDR, PDTS and Network) data to identify patients with diabetes via diabetes-related visits and medications
- Use M2 (CAPER, SADR, SIDR, PDTS and Network) data to identify diabetes-related visits, retinal eye exams, and number of prescriptions
- Use COHORT / CHCS Lab ad hocs to identify diabetes-related labs in direct care
- Use M2 Network data to identify diabetes-related labs in network
- Use CHCS Managed Care Platform NED module ad hoc report to identify Primary Care Manager (PCM) in direct care

Numerator Data Sources & Codes:**Identifying A1c Tests:**

CHCS Laboratory extract to identify patients with the above diabetes codes who had at least one A1c test completed in the past 12 months, in direct care, and value of the test documented. CPT codes and lab test names are used to find individuals with A1c tests performed. Purchased care claims are used to identify A1c test performed in purchased care.

➔ CPT Codes:

- 83036
- 83037

Identifying LDL-C Lab Tests:

CHCS Laboratory extract to identify diabetic patients with the specified diabetes codes who had at least one LDL-C screening test completed in the past 12 months and value of test documented. CPT and lab test names were used to find individuals with LDL-C labs performed.

➔ CPT Codes:

- 80061
- 83700
- 83701
- 83704
- 83721

Codes to identify eye exams using Network (M2) and CAPER/SADR (M2) claims data:

CPT Codes	HCPCS	ICD-9-CM Procedure
67028, 67030, 67031, 67036, 67039-67043, 67101, 67105, 67107, 67108, 67110, 67112, 67113, 67121, 67141, 67145, 67208, 67210, 67218, 67220, 67221, 67227, 67228, 92002, 92004, 92012, 92014, 92018, 92019, 92134, 92225-92228, 92230, 92235, 92240, 92250, 92260, 99203-99205, 99213-99215, 99242-99245	S0620, S0621, S0625**, S3000	14.1-14.5, 14.9, 95.02-95.04, 95.11, 95.12, 95.16

** HCPCS S0625 does not need to be limited to an optometrist or ophthalmologist. These codes indicate an eye exam was performed by an eye care professional.

Codes to identify Microalbuminuria Tests:

CHCS Laboratory extract to identify patients who had at least one microalbuminuria lab test completed in the past 12 months and value of test documented. CPT and lab test names were used to find individuals with microalbuminuria labs performed.

➔ Microalbuminuria CPT Codes

- 82042
- 82043
- 82044
- 84156

Denominator Data Sources & Codes:Codes to identify diabetics:

➔ Diabetes Mellitus ICD-9-CM Codes:

- 250
- 357.2
- 362.0
- 366.41
- 648.0

Codes to identify Diabetic Visits:

Description	CPT Codes
Outpatient	92002, 92004, 92012, 92014, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99384-99387, 99394-99397, 99401-99404, 99411,99412, 99420, 99429, 99455, 99456
Nonacute Inpatient	99304-99310, 99315, 99316, 99318, 99324-99328, 99334-99337
Acute Inpatient	99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291
Emergency Dept	99281-99285

Codes to exclude patients for secondary diabetes and other conditions requiring diabetic medications:

Description	ICD-9-CM Codes	Notes
Polycystic Ovarian Syndrome	256.4	Occurring anytime during the member's history with no face to face encounters for diabetes, in any setting, during the past 24

Description	ICD-9-CM Codes	Notes
		months.
Steroid-Induced Diabetes	249, 251.8, 962.0	Occurring during the past 24 months with no face to face encounters for diabetes, in any setting, during the past 24 months.
Gestational Diabetes	648.8	Occurring during the past 24 months with no face to face encounters for diabetes, in any setting, during the past 24 months.
Prediabetes	790.29	Occurring during the past 24 months with no face to face encounters for diabetes, in any setting, during the past 24 months.
Metabolic Syndrome	277.7	Occurring during the past 24 months with no face to face encounters for diabetes, in any setting, during the past 24 months.

Codes to identify required exclusions for A1c < 7.0 measure:

Description	CPT	HCPCS	ICD-9-CM Diagnosis	ICD-9-CM Procedure	POS
IVD			411, 413, 414.0, 414.2, 414.8, 414.9, 429.2, 433-434, 440.1, 440.2, 440.4, 444, 445		
CABG (inpatient only)	33510-33514, 33516-33519, 33521-33523, 33533-33536	S2205-S2209		36.1, 36.2	
PCI	92980, 92982, 92995	G0290		00.66, 36.06, 36.07	
Dementia			290, 291.2, 292.82, 294.0, 294.1, 294.8, 331.0, 331.1, 331.82		
MI			410, 412		
CRF/ESRD	36145, 36147, 36800, 36810, 36815, 36818-36821, 36831-36833, 90919-90921, 90923-90925, 90935, 90937, 90940, 90945, 90947, 90957- 90962, 90965, 90966, 90969, 90970, 90989, 90993,	G0257, G0311-G0319, G0321-G0323, G0325-G0327, G0392, G0393, S9339	585.4, 585.5, 585.6, V42.0, V45.1	38.95, 39.27, 39.42, 39.43, 39.53, 39.93-39.95, 54.98	65

Description	CPT	HCPCS	ICD-9-CM Diagnosis	ICD-9-CM Procedure	POS
	90997, 90999, 99512				
Blindness			369.0, 369.1, 369.2, 369.4, 369.6, 369.7		
Amputation (lower extremity)	27290, 27295, 27590-27592, 27594, 27596, 27598, 27880, 27881, 27882, 27884, 27886, 27888, 27889, 28800, 28805, 28810, 28820, 28825			84.1	
CHF			428		

Action Report:

List of TRICARE Prime/Plus enrolled diabetics, at least age 1, by PCM.² The action list is based on current DEERS enrollment, in contrast to the HEDIS[®] aggregate report which specifies continuous enrollment and age constraints.

Action Report Data Elements:

- ➔ ACG RUB (only AF users: see ACG methodology)
- ➔ Patient's Name
- ➔ Sponsor's Social Security Number
- ➔ Family Member Prefix (FMP)
- ➔ Date of Birth
- ➔ Age
- ➔ Gender
- ➔ Beneficiary Category (BENCAT)
- ➔ PCM**
- ➔ Provider Group**
- ➔ PCM ID*

- ➔ PCMID Type*
- ➔ Number of Diabetic Outpatient Visits
- ➔ Number of Diabetic Hospitalizations
- ➔ Number of Diabetic ED Visits
- ➔ Rx Count
- ➔ Insulin
- ➔ A1C Date
- ➔ A1C Result³
- ➔ A1C Source
- ➔ A1C System
- ➔ Retinal Exam Date⁴
- ➔ Retinal Source
- ➔ Retinal System
- ➔ LDL Date
- ➔ LDL Result¹
- ➔ LDL Source
- ➔ LDL System
- ➔ Cholesterol Date
- ➔ Cholesterol Result
- ➔ Cholesterol Source
- ➔ Cholesterol System
- ➔ HDL Date
- ➔ HDL Result
- ➔ HDL Source
- ➔ HDL System
- ➔ CHOL/HDL Ratio
- ➔ Comorbid (Yes= patient has comorbidity that excludes from A1c<7 metric)
- ➔ Comorbid Date
- ➔ BP Date

- ➔ Systolic
- ➔ Diastolic
- ➔ Contact Information**
- ➔ Defense Medical Information System (DMIS)
- ➔ TRO*
- ➔ Notes detail for Diabetes and/or Generic notes entered by users

*TRO Action List only

**Direct Care Action Lists only

For known diabetics, if microalbumin results can be found in CHCS lab data, those results are displayed in a separate file.

Recommended Action:

- ➔ Review chronic disease burden data to project provision of health care services and exams.
- ➔ Consider implementation of DoD/VA (or other) clinical practice guidelines.⁵
- ➔ Review medical records of the patients that need to have an HbA1c, LDL or retinal exam and arrange to have a member of the health care team schedule the test.
- ➔ Consider case management for patients with HbA1c >9.0, or LDL >100.

Notes:

¹ Lab values cannot be obtained from purchased care data. Only the exam date will be displayed.

² Due to the record reporting lag time, not all of the previous months' records may be included in this reporting period.

³ A1c values are not available for tests accomplished in purchased care.

⁴ Only retinal exams with provider specialty codes of (120, 121, 510, 708) (Direct Care) or (18, 98) (Purchased Care Claims) will be counted.

⁵ DoD/VA guidelines can be located at: <https://www.qmo.amedd.army.mil/pguide.htm>