



COLORADO

Department of Health Care
Policy & Financing

FY 2016–2017 Physical Health Performance Measure Validation Report for Denver Health Medicaid Choice

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Introduction

The Colorado State Medicaid agency, the Department of Health Care Policy & Financing (the Department) requires three mandatory external quality review (EQR) activities as per the Balanced Budget Act of 1997 (BBA), 42 Code of Federal Regulations (CFR) 438.358. One of these activities is the validation of performance measures. The Department has contracted with Health Services Advisory Group, Inc. (HSAG), an external quality review organization (EQRO), to conduct the validation of performance measures for **Denver Health Medicaid Choice (DHMC)**, a managed care organization (MCO), for fiscal year (FY) 2016–2017.

The Department opted to use selected National Committee for Quality Assurance (NCQA) Healthcare Effectiveness Data and Information Set (HEDIS®)¹ measures as the performance measures and calendar year 2016 as the measurement period for validation. Developed and maintained by NCQA, HEDIS is a set of performance data broadly accepted in the managed care environment as an industry standard. Because **DHMC** is required to calculate and submit HEDIS performance measures and undergo an NCQA HEDIS Compliance Audit™,² HSAG validated the results from the audits to meet the BBA requirements. More specifically, HSAG's role in the validation of performance measures was to ensure that the validation activities were conducted as outlined in the Centers for Medicare & Medicaid Services (CMS) publication, *EQR Protocol 2: Validation of Performance Measures Reported by the MCO: A Mandatory Protocol for External Quality Review (EQR)*, Version 2.0, September 1, 2012.³

The primary objectives of the performance measure validation process were to:

- Evaluate the accuracy of the performance measure data collected by **DHMC**.
- Determine the extent to which the specific performance measures calculated by **DHMC** (or on behalf of **DHMC**) followed the specifications established for each performance measure.

DHMC underwent an NCQA HEDIS Compliance Audit through an NCQA-licensed audit organization of its choice and submitted the audited results and audit statement to HSAG. Since the audit was conducted in compliance with NCQA's *2017 HEDIS Compliance Audit: Standards, Policies, and Procedures, Volume 5* and the NCQA HEDIS Compliance Audit is consistent with the CMS Performance Measure Validation Protocol, the findings and results from the NCQA HEDIS Compliance Audit can be reviewed,

¹ HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

² NCQA HEDIS Compliance Audit™ is a trademark of NCQA. The purpose of conducting a HEDIS audit is to ensure that rates submitted by **DHMC** are reliable, valid, accurate, and can be compared to one another. For a brief overview of the NCQA HEDIS Compliance Audit, please refer to Appendix A.

³ Department of Health and Human Services, Centers for Medicare & Medicaid Services. *EQR Protocol 2: Validation of Performance Measures Reported by the MCO: A Mandatory Protocol for External Quality Review (EQR)*, Version 2.0, September 2012. Available at: <https://www.medicare.gov/medicaid/quality-of-care/medicaid-managed-care/external-quality-review/index.html>. Accessed on: Aug 25, 2017.

validated, and eventually accepted as findings for the validation of performance measures to meet the BBA requirements.

Performance Measure List

The NCQA-licensed audit organizations validated, at a minimum, a set of performance measures selected by the Department. The measures, which are listed in Table 1, are HEDIS measures that follow the definitions outlined in NCQA’s *HEDIS 2017 Technical Specifications, Volume 2*, and the reporting method required by the Department.

Table 1—Health First Colorado⁴ 2017 Performance Measure Reporting Set

Performance Measures	Reporting Methodology
<i>Childhood Immunization Status</i>	Administrative
<i>Immunizations for Adolescents</i>	Administrative
<i>Well-Child Visits in the First 15 Months of Life</i>	Administrative
<i>Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life</i>	Administrative
<i>Adolescent Well-Care Visits</i>	Administrative
<i>Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents</i>	Administrative
<i>Appropriate Testing for Children With Pharyngitis</i>	Administrative
<i>Appropriate Treatment for Children With Upper Respiratory Infection</i>	Administrative
<i>Children’s and Adolescents’ Access to Primary Care Practitioners</i>	Administrative
<i>Prenatal and Postpartum Care</i>	Administrative
<i>Adults’ Access to Preventive/Ambulatory Health Services</i>	Administrative
<i>Controlling High Blood Pressure</i>	Administrative
<i>Comprehensive Diabetes Care (excluding HbA1c <7 indicator)</i>	Administrative
<i>Annual Monitoring for Patients on Persistent Medications</i>	Administrative
<i>Use of Imaging Studies for Low Back Pain</i>	Administrative
<i>Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis</i>	Administrative
<i>Pharmacotherapy Management of Chronic Obstructive Pulmonary Disease (COPD) Exacerbation</i>	Administrative
<i>Asthma Medication Ratio</i>	Administrative

⁴ In Colorado, Medicaid is now known as Health First Colorado (Colorado’s Medicaid Program).

Performance Measures	Reporting Methodology
<i>Medication Management for People With Asthma</i>	Administrative
<i>Use of Spirometry Testing in the Assessment and Diagnosis of COPD</i>	Administrative
<i>Disease-Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis</i>	Administrative
<i>Chlamydia Screening in Women</i>	Administrative
<i>Breast Cancer Screening</i>	Administrative
<i>Cervical Cancer Screening</i>	Administrative
<i>Non-Recommended Cervical Cancer Screening in Adolescent Females</i>	Administrative
<i>Adult Body Mass Index (BMI) Assessment</i>	Administrative
<i>Statin Therapy for Patients with Diabetes</i>	Administrative
<i>Persistence of Beta-Blocker Treatment After Heart Attack</i>	Administrative
<i>Statin Therapy for Patients with Diabetes</i>	Administrative
<i>Anti-depressant Medication Management</i>	Administrative
<i>Follow-up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication</i>	Administrative
<i>Use of Multiple Concurrent Antipsychotics in Children and Adolescents</i>	Administrative
<i>Ambulatory Care: Emergency Department Visits and Outpatient Visits</i>	Administrative
<i>Inpatient Utilization—General Hospital/Acute Care</i>	Administrative
<i>Antibiotic Utilization</i>	Administrative
<i>Frequency of Selected Procedures</i>	Administrative

Technical Methods of Analysis

The CMS Performance Measure Validation Protocol identifies key types of data that should be reviewed. As part of the validation process, HSAG aggregated several sources of HEDIS-related data to determine if the licensed organizations’ (LOs’) audit process met CMS requirements.

This performance measure validation report uses two primary sources—NCQA’s Interactive Data Submission System (IDSS) data output reports and the final audit reports—to tabulate overall HEDIS reporting capabilities and functions for **DHMC**. The IDSS contained the final HEDIS rates that were verified, reviewed, and locked by the LOs. The auditor-locking mechanism in the IDSS tool ensured that no information could be changed without the consent of NCQA and the auditor. The IDSS review process allowed the LOs to assess the reasonability of the rates submitted by **DHMC**.

The following is a table identifying the key audit steps required by NCQA for the LO to conduct NCQA HEDIS Compliance Audits. The table also lists HSAG’s approach in validating the LO’s audit.

Table 2—Description of Data Sources Reviewed

Key Steps According to NCQA’s HEDIS Compliance Audit	HSAG’s Approach on Validating the LO’s Audit Results
<p>Pre-on-site Visit/Meeting—The initial conference call or meeting between the LOs and DHMC staff.</p>	<p>HSAG verified that key HEDIS topics such as timelines and on-site review dates were addressed by the LOs.</p>
<p>Roadmap Review—This review provided the LOs with background information on policies, processes, and data in preparation for on-site validation activities. DHMC was required to complete the Roadmap to provide the audit team with the necessary information to begin review activities.</p>	<p>HSAG looked for evidence in the final report that the LOs conducted a thorough review of all components of the Roadmap.</p>
<p>Source Code Review—Source code review is used to determine compliance with the performance measure definitions, including accurate numerator and denominator identification, sampling, and algorithmic compliance (to determine if rate calculations were performed correctly, medical record and administrative data were combined appropriately, and numerator events were counted accurately). This process is not necessary if DHMC uses a vendor who participates in NCQA’s measure certification process.</p>	<p>If the MCO used a software vendor to produce HEDIS rates, HSAG used the final audit report (FAR) and measure certification letter to assess whether or not the software vendor achieved full measure certification status by NCQA for the reported HEDIS measures. HSAG ensured that the LOs reviewed the programming language for calculating the HEDIS measures if such a vendor was not used.</p>

Key Steps According to NCQA’s HEDIS Compliance Audit	HSAG’s Approach on Validating the LO’s Audit Results
<p>Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Survey Vendor and Sample Frame Validation—A certified survey vendor must be used if DHMC performed a CAHPS survey as part of HEDIS reporting.⁵</p>	<p>HSAG verified that the LO performed detailed validations on the CAHPS Sample Frame if DHMC performed a CAHPS survey as part of HEDIS reporting. If DHMC used a survey vendor to perform the CAHPS surveys, HSAG verified that an NCQA-Certified survey vendor was used.</p>
<p>Supplemental Data Validation—If DHMC used any supplemental data for reporting, the LO was to validate the supplemental data according to NCQA’s guideline.</p>	<p>HSAG verified whether the LO was following the NCQA-required approach while validating the supplemental databases.</p>
<p>Convenience Sample Validation—The auditor reviews a small number of processed medical records to uncover potential problems in the process that may require corrective action early in the medical record review (MRR) process. A convenience sample must be prepared unless the auditor determines that a health plan is exempt. NCQA allows organizations to be exempt from the convenience sample if they participated in a HEDIS audit the previous year and passed MRR validation, and if the current MRR process has not changed significantly from the previous year and the organization does not report hybrid measures that the auditor determines to be at risk of inaccurate reporting.</p>	<p>HSAG verified that the LOs determined whether or not DHMC was required to undergo a convenience sample validation. HSAG also verified that if a convenience sample validation was not required by an LO, the specific reasons were documented.</p>
<p>Medical Record Review—The LOs are required to perform a more extensive validation of medical records reviewed, which is conducted late in the abstraction process. This validation ensures that the review process was executed as planned and that the results are accurate.</p>	<p>HSAG reviewed whether or not the LOs performed a review of the medical record review processes used by DHMC for collecting medical record data for their hybrid measures. HSAG also examined whether the LOs had conducted a re-review of a random sample of medical records for each applicable measure group based on NCQA’s protocol.</p>
<p>IDSS Review—DHMC is required to complete NCQA’s IDSS for the submission of audited rates to NCQA. The auditor finalizes the IDSS by completing the audit review and entering an audit result. This process verifies that the auditor validated all activities that culminated in a rate by DHMC. The auditor locks the IDSS so that no information can be changed.</p>	<p>HSAG verified that the LOs completed the IDSS review process.</p>

⁵ CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

Validation Findings of Audit Process

Table 3 identifies the key elements used by **DHMC**'s LO while conducting its 2017 NCQA HEDIS Compliance Audit. These key elements were reviewed by HSAG during validation activities. As presented in Table 3, a checkmark indicates that the LO reviewed the HEDIS activities, which confirmed that HEDIS methodology was being followed. Some activities are identified as being compliant by inserting the name of the company **DHMC** contracted with to perform the required tasks.

Table 3—Validation Activities for DHMC

Licensed Organization	Attest Health Care Advisors
Pre-on-site Visit Call/Meeting	✓
Roadmap Review	✓
Software Vendor	Verscend Technologies Inc.
Source Code/Certified Measure Review	✓
Survey Vendor	Morpace Inc.
CAHPS Sample Frame Validation	✓
Supplemental Data Validation	✓
Medical Record Review	✓
IDSS Review	✓

Table 3 indicates that the audit conducted for **DHMC** included all of the listed validation activities. HSAG also determined that the data collected and reported for the Department-selected measures followed NCQA HEDIS methodology. Therefore, any rates and audit results are determined to be valid, reliable, and accurate.

Denver Health Medicaid Choice's Compliance With IS Standards

In addition to ensuring that data were captured, reported, and presented in a uniform manner, HSAG evaluated **DHMC**'s information system (IS) capabilities for accurate HEDIS reporting. HSAG reviewed **DHMC**'s final audit report for its LO's assessments of IS capabilities, specifically focused on those aspects of **DHMC**'s systems that could have impacted the HEDIS Medicaid reporting set.

For the purpose of HEDIS compliance auditing, the terms "information system" or "IS" are used broadly to include the computer and software environment, data collection procedures, and abstraction of medical records for hybrid measures. The IS evaluation includes a review of any manual processes that may have been used for HEDIS reporting as well. The LO determined if **DHMC** had the automated systems, information management practices, processing environment, and control procedures to capture, access, translate, analyze, and report each HEDIS measure.

In accordance with NCQA’s *2017 HEDIS Compliance Audit: Standards, Policies, and Procedures, Volume 5*, the LO evaluated IS compliance with NCQA’s IS standards. These standards detail the minimum requirements **DHMC**’s IS systems should meet, as well as criteria that any manual processes used to report HEDIS information must meet. For circumstances in which a particular IS standard was not met, the LO rated the impact on HEDIS reporting capabilities and, particularly, any measure that could be impacted. **DHMC** may not be fully compliant with many of the IS standards but may still be able to report the selected measures.

For the current reporting period, **DHMC**’s information systems and processes were found adequate to meet NCQA’s IS standards and the HEDIS determination reporting requirements. The section that follows provides a summary of **DHMC**’s key findings for each IS standard as noted in its final audit report. A more in-depth explanation of NCQA’s IS standards is provided in Appendix A of this report. IS 6.0—Member Call Center Data—Capture, Transfer, and Entry was removed from HEDIS 2017 reporting.

Table 4—Summary of DHMC’s Compliance With IS Standards

NCQA’s IS Standards	IS Standards Compliance Findings Based on HSAG’s Review of the HEDIS 2017 Final Audit Report
<p>IS 1.0—Medical Services Data—Sound Coding Methods and Data Capture, Transfer, and Entry</p> <ul style="list-style-type: none"> • Industry standard codes are required and captured. • Primary and secondary diagnosis codes are identified. • Nonstandard codes (if used) are mapped to industry standard codes. • Standard submission forms are used. • Timely and accurate data entry processes and sufficient edit checks are used. • Data completeness is continually assessed and all contracted vendors involved in medical claims processing are monitored. 	<p>The auditor determined that DHMC was fully compliant with IS Standard 1.0 for medical services data capture and processing.</p>
<p>IS 2.0—Enrollment Data—Data Capture, Transfer, and Entry</p> <ul style="list-style-type: none"> • All HEDIS-relevant information for data entry or electronic transmissions of enrollment data is accurate and complete. • Manual entry of enrollment data is timely and accurate, and sufficient edit checks are in place. • The health plans continually assess data completeness and take steps to improve performance. 	<p>The auditor determined that DHMC was fully compliant with IS Standard 2.0 for enrollment data capture and processing.</p>

NCQA’s IS Standards	IS Standards Compliance Findings Based on HSAG’s Review of the HEDIS 2017 Final Audit Report
<ul style="list-style-type: none"> • The health plans effectively monitor the quality and accuracy of electronic submissions. • The health plans have effective control processes for the transmission of enrollment data. 	
<p>IS 3.0—Practitioner Data—Data Capture, Transfer, and Entry</p> <ul style="list-style-type: none"> • Provider specialties are fully documented and mapped to HEDIS provider specialties. • Effective procedures for submitting HEDIS-relevant information are in place. • Electronic transmissions of practitioner data are checked to ensure accuracy. • Processes and edit checks ensure accurate and timely entry of data into the transaction files. • Data completeness is assessed and steps are taken to improve performance. • Vendors are regularly monitored against expected performance standards. 	<p>The auditor determined that DHMC was fully compliant with IS Standard 3.0 for practitioner data capture and processing.</p> <p>However, the auditor noted that DHMC currently did not have a system in place to house and document all contracted, credentialed provider data and that affiliated hospitals’ systems were used to gather board credentialing information on providers. The <i>Board Certification (BCR)</i> measure will be audited next year; therefore, the auditor recommended that DHMC implement the Cactus system and maintain all provider-related information. This could provide an opportunity to use an automated process for future reporting of the BCR measure.</p>
<p>IS 4.0—Medical Record Review Processes—Training, Sampling, Abstraction, and Oversight</p> <ul style="list-style-type: none"> • Forms or tools used for medical record review capture all fields relevant to HEDIS reporting. • Checking procedures are in place to ensure data integrity for electronic transmission of information. • Retrieval and abstraction of data from medical records are accurately performed. • Data entry processes, including edit checks, are timely and accurate. • Data completeness is assessed, including steps to improve performance. • Vendor performance is monitored against expected performance standards. 	<p>The auditor determined that DHMC was fully compliant with IS Standard 4.0 for medical record review processes.</p>

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2017 Final Audit Report
<p>IS 5.0—Supplemental Data—Capture, Transfer, and Entry</p> <ul style="list-style-type: none"> • Nonstandard coding schemes are fully documented and mapped to industry standard codes. • Effective procedures for submitting HEDIS-relevant information are in place. • Electronic transmissions of supplemental data are checked to ensure accuracy. • Data entry processes, including edit checks, are timely and accurate. • Data completeness is assessed, including steps to improve performance. • Vendor performance is monitored against expected performance standards. 	<p>The auditor determined that DHMC was fully compliant with IS Standard 5.0 for supplemental data capture and processing.</p>
<p>IS 7.0—Data Integration—Accurate Reporting, Control Procedures That Support Measure Reporting Integrity</p> <ul style="list-style-type: none"> • Nonstandard coding schemes are fully documented and mapped to industry standard codes. • Data transfers to the HEDIS repository from transaction files are accurate. • File consolidations, extracts, and derivations are accurate. • The repository structure and formatting are suitable for HEDIS measures and enable required programming efforts. • Report production is managed effectively and operators perform appropriately. • HEDIS reporting software is managed properly. • Physical control procedures ensure HEDIS data integrity. • The organization regularly monitors vendor performance against expected performance standards. 	<p>The auditor determined that DHMC was fully compliant with IS Standard 7.0 for data integration.</p> <p>In addition, although it did not have any negative impact on HEDIS reporting, the auditor noted that DHMC experienced problems with extracting and properly formatting data to the appropriate layout. Due to the plan's limited IT resources, DHMC was unable, in a timely manner, to implement measure changes outlined by NCQA. In addition, since DHMC did not have sufficient documentation of the prior year's extract and formatting process, any corrections and attempts to correctly load the data into the vendor's software affected the total time available for hybrid data review. As a result of this issue, DHMC reported several measures with administrative data only. Based on this observation, the auditor recommended that, during the summer and fall of 2017, DHMC perform extensive testing of the data extraction and data mapping processes of the vendor software.</p>

Appendix A. Information Systems Standards

Overview of the NCQA HEDIS Compliance Audit

Developed and maintained by NCQA, HEDIS is a set of performance data broadly accepted in the managed care environment as an industry standard. Organizations seeking NCQA accreditation or wishing to publicly report their HEDIS performance results undergo an NCQA HEDIS Compliance Audit through an NCQA-licensed audit organization. The audits are conducted in compliance with NCQA's *2017 HEDIS Compliance Audit: Standards, Policies, and Procedures, Volume 5*. The purpose of conducting a HEDIS audit is to ensure that rates submitted by the organizations are reliable, valid, accurate, and can be compared to one another.

During the HEDIS audit, data management processes were reviewed using findings from the NCQA HEDIS Record of Administration, Data Management, and Processes (Roadmap) review; interviews with key staff members; and a review of queries and output files. Data extractions from systems used to house production files and generate reports were reviewed, including a review of data included in the samples for the selected measures. Based on validation findings, the LOs produced an initial written report identifying any perceived issues of noncompliance, problematic measures, and recommended opportunities for improvement. The LOs also produced a final report with updated text and findings based on comments on the initial report.

The FAR included information on the organization's information system (IS) capabilities; each measure's reportable results; medical record review validation results; the results of any corrected programming logic, including corrections made to numerators, denominators, or sampling used for final measure calculation; and opportunities and recommendations for improvement of data completeness, data integrity, and health outcomes.

Information Systems Standards

Listed below are the Information Systems Standards published in NCQA's *2017 HEDIS Compliance Audit: Standards, Policies, and Procedures, Volume 5*.

IS 1.0—Medical Services Data—Sound Coding Methods and Data Capture, Transfer, and Entry

IS 1.1 Industry standard codes (e.g., ICD-9/ICD-10, CPT, DRG, HCPCS) are used and all characters are captured.

IS 1.2 Principal codes are identified and secondary codes are captured.

IS 1.3 Nonstandard coding schemes are fully documented and mapped back to industry standard codes.

- IS 1.4 Standard submission forms are used and capture all fields relevant to measure reporting. All proprietary forms capture equivalent data. Electronic transmission procedures conform to industry standards.
- IS 1.5 Data entry processes are timely and accurate and include sufficient edit checks to ensure accurate entry of submitted data in transaction files for measure reporting.
- IS 1.6 The organization continually assesses data completeness and takes steps to improve performance.
- IS 1.7 The organization regularly monitors vendor performance against expected performance standards.

Rationale

The organization must capture all clinical information pertinent to the delivery of services to provide a basis for calculating measures. The audit process ensures that the organization consistently captures sufficient clinical information. Principal among these practices and critical for computing clinical measures is consistent use of standardized codes to describe medical events, including nationally recognized schemes to capture diagnosis, procedure, DRG, and DSM codes. Standardized coding improves the comparability of measures through common definition of identical clinical events. The organization must cross-reference nonstandard coding schemes at the specific diagnosis and service level to attain equivalent meaning. The integrity of measures requires using standard forms, controlling receipt processes, editing and verifying data entry, and implementing other control procedures that promote completeness and accuracy in receiving and recording medical information. The transfer of information from medical charts to the organization's databases should be subject to the same standards for accuracy and completeness.

IS 2.0—Enrollment Data—Data Capture, Transfer, and Entry

- IS 2.1 The organization has procedures for submitting measure-relevant information for data entry. Electronic transmissions of membership data have necessary procedures to ensure accuracy.
- IS 2.2 Data entry processes are timely and accurate and include sufficient edit checks to ensure accurate entry of submitted data in transaction files.
- IS 2.3 The organization continually assesses data completeness and takes steps to improve performance.
- IS 2.4 The organization regularly monitors vendor performance against expected performance standards.

Rationale

Controlling receipt processes, editing and verifying data entry, and implementing other control procedures to promote completeness and accuracy in receiving and recording member information are critical in databases that calculate measures. Specific member information includes age, gender, benefits, product line (commercial, Medicaid, and Medicare), and the dates that define periods of membership so gaps in enrollment can be determined.

IS 3.0—Practitioner Data—Data Capture, Transfer, and Entry

- IS 3.1 Provider specialties are fully documented and mapped to provider specialties necessary for measure reporting.
- IS 3.2 The organization has effective procedures for submitting measure-relevant information for data entry. Electronic transmissions of practitioner data are checked to ensure accuracy.
- IS 3.3 Data entry processes are timely and accurate and include edit checks to ensure accurate entry of submitted data in transaction files.
- IS 3.4 The organization continually assesses data completeness and takes steps to improve performance.
- IS 3.5 The organization regularly monitors vendor performance against expected performance standards.

Rationale

Controlling receipt processes, editing and verifying data entry, and implementing other control procedures to promote completeness and accuracy in receiving and recording provider information are critical in databases that calculate measures. Specific provider information includes the provider's specialty, contracts, credentials, populations served, date of inclusion in the network, date of credentialing, board certification status, and information needed to develop medical record abstraction tools.

IS 4.0—Medical Record Review Processes—Training, Sampling, Abstraction, and Oversight

- IS 4.1 Forms capture all fields relevant to measure reporting. Electronic transmission procedures conform to industry standards and have necessary checking procedures to ensure data accuracy (logs, counts, receipts, hand-off, and sign-off).
- IS 4.2 Retrieval and abstraction of data from medical records are reliably and accurately performed.
- IS 4.3 Data entry processes are timely and accurate and include sufficient edit checks to ensure accurate entry of submitted data in the files for measure reporting.
- IS 4.4 The organization continually assesses data completeness and takes steps to improve performance.
- IS 4.5 The organization regularly monitors vendor performance against expected performance standards.

Rationale

Medical record review validation ensures that record abstraction performed by or on behalf of the entity meets standards for sound processes and that abstracted data are accurate. Validation includes not only

an over-read of abstracted medical records, but also a review of medical record review tools, policies, and procedures related to data entry and transfer, and training materials developed by or on behalf of the entity.

IS 5.0—Supplemental Data—Capture, Transfer, and Entry

- IS 5.1 Nonstandard coding schemes are fully documented and mapped to industry standard codes.
- IS 5.2 The organization has effective procedures for submitting measure-relevant information for data entry. Electronic transmissions of data have checking procedures to ensure accuracy.
- IS 5.3 Data entry processes are timely and accurate and include edit checks to ensure accurate entry of submitted data in transaction files.
- IS 5.4 The organization continually assesses data completeness and takes steps to improve performance.
- IS 5.5 The organization regularly monitors vendor performance against expected performance standards.

Rationale

Organizations may use a supplemental database to collect and store data, which is then used to augment rates. These databases must be scrutinized closely since they can be standard, nonstandard, or member-reported. The auditor must determine whether sufficient control processes are in place related to data collection, validation of data entry into the database, and use of these data. Mapping documents and file layouts may be reviewed as well, to determine compliance with this standard. Beginning with HEDIS 2014, NCQA provided new validation requirements for auditing supplemental data to ensure that all data included for reporting are complete and have required supporting documentation.

IS 6.0—Member Call Center Data—Capture, Transfer, and Entry*

- IS 6.1 Member call center data are reliably and accurately captured.

*This standard was removed from HEDIS 2017 reporting.

IS 7.0—Data Integration—Accurate Reporting, Control Procedures That Support Measure Reporting Integrity

- IS 7.1 Nonstandard coding schemes are fully documented and mapped to industry standard codes.
- IS 7.2 Data transfers to repository from transaction files are accurate.
- IS 7.3 File consolidations, extracts, and derivations are accurate.
- IS 7.4 The repository structure and formatting are suitable for measures and enable required programming efforts.

- IS 7.5 Report production is managed effectively and operators perform appropriately.
- IS 7.6 Measure reporting software is managed properly with regard to development, methodology, documentation, revision control, and testing.
- IS 7.7 Physical control procedures ensure measure data integrity such as physical security, data access authorization, disaster recovery facilities, and fire protection.
- IS 7.8 The organization regularly monitors vendor performance against expected performance standards.

Rationale

Calculating rates requires data from multiple sources. The systems used to assemble the data and to make the required calculations should be carefully constructed and tested. The organization's quality assurance practices and backup procedures serve as an organizational infrastructure supporting all information systems. The practices and procedures promote accurate and timely information processing and data protection in the event of a disaster. Data needed to calculate measures are produced by the organization's information systems and may be directly or indirectly affected by IS practices and procedures.

Appendix B. Audit Results and Rates

This appendix presents the audited rates in the IDSS as submitted by **DHMC**. According to the Department’s required data collection methodology, the rates displayed in Table B-2 reflect administrative data-only rates and for some of the measures were not the final, reported, hybrid rates in **DHMC**’s IDSS. In addition, for measures with multiple indicators (e.g., *Annual Monitoring for Patients on Persistent Medications*) more than one rate is required for reporting. It is possible that **DHMC** may have received an “*NA*” designation for an indicator due to a small denominator within the measure but still have received an “*R*” designation for the total population.

Table B-1—HEDIS Audit Results

Audit Finding	Description	Audit Result
For HEDIS Measures		
The rate or numeric result for a HEDIS measure is reportable. The measure was fully or substantially compliant with HEDIS specifications or had only minor deviations that did not significantly bias the reported rate.	Reportable	<i>R</i>
HEDIS specifications were followed but the denominator was too small to report a valid rate.	Denominator <30	<i>NA</i>
The health plan did not offer the health benefits required by the measure.	No Benefit (Benefit Not Offered)	<i>NB</i>
The health plan chose not to report the measure.	Not Reported	<i>NR</i>
The health plan was not required to report the measure.	Not Required	<i>NQ</i>
The rate calculated by the health plan was materially biased.	Biased Rate	<i>BR</i>
The health plan chose to report a measure that is not required to be audited. This result applies only to a limited set of measures (e.g., measures collected using electronic clinical data systems).	Un-Audited	<i>UN</i>

Table B-2—DHMC’s Rates and Audit Results

HEDIS Measure	2017 HEDIS Rate	Audit Result
Childhood Immunization Status		
<i>DTaP</i>	73.25%	R
<i>IPV</i>	84.22%	R
<i>MMR</i>	83.23%	R
<i>HiB</i>	84.06%	R
<i>Hepatitis B</i>	86.31%	R
<i>VZV</i>	83.12%	R
<i>Pneumococcal Conjugate</i>	77.38%	R
<i>Hepatitis A</i>	82.65%	R
<i>Rotavirus</i>	63.79%	R
<i>Influenza</i>	58.52%	R
<i>Combination #2</i>	72.57%	R
<i>Combination #3</i>	71.58%	R
<i>Combination #4</i>	71.42%	R
<i>Combination #5</i>	59.46%	R
<i>Combination #6</i>	53.76%	R
<i>Combination #7</i>	59.35%	R
<i>Combination #8</i>	53.76%	R
<i>Combination #9</i>	46.50%	R
<i>Combination #10</i>	46.50%	R
Immunizations for Adolescents		
<i>Meningococcal</i>	76.92%	R
<i>Tdap</i>	76.76%	R
<i>HPV</i>	25.50%	R
<i>Combination 1</i>	75.37%	R
<i>Combination 2</i>	24.88%	R
Well-Child Visits in the First 15 Months of Life		
<i>0 Visits</i>	7.03%	R
<i>6+ Visits</i>	3.52%	R
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	58.59%	R
Adolescent Well-Care Visits	34.68%	R
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents		
<i>BMI Percentile (3–11 Years)</i>	5.82%	R
<i>BMI Percentile (12–17 Years)</i>	11.00%	R
<i>BMI Percentile (Total)</i>	7.68%	R

HEDIS Measure	2017 HEDIS Rate	Audit Result
<i>Counseling for Nutrition (3–11 Years)</i>	0.35%	R
<i>Counseling for Nutrition (12–17 Years)</i>	2.37%	R
<i>Counseling for Nutrition (Total)</i>	1.08%	R
<i>Counseling for Physical Activity (3–11 Years)</i>	0.07%	R
<i>Counseling for Physical Activity (12–17 Years)</i>	1.41%	R
<i>Counseling for Physical Activity (Total)</i>	0.55%	R
<i>Appropriate Testing for Children With Pharyngitis</i>	80.52%	R
<i>Appropriate Treatment for Children With Upper Respiratory Infection</i>	96.04%	R
<i>Children’s and Adolescents’ Access to Primary Care Practitioners</i>		
<i>12–24 Months</i>	88.32%	R
<i>25 Months–6 Years</i>	71.74%	R
<i>7–11 Years</i>	76.19%	R
<i>12–19 Years</i>	76.40%	R
<i>Prenatal and Postpartum Care</i>		
<i>Timeliness of Prenatal Care</i>	74.04%	R
<i>Postpartum Care</i>	44.42%	R
<i>Adults’ Access to Preventive/Ambulatory Health Services</i>		
<i>20–44 Years</i>	53.95%	R
<i>45–64 Years</i>	69.17%	R
<i>65+ Years</i>	82.63%	R
<i>Total</i>	59.87%	R
<i>Comprehensive Diabetes Care (excluding HbA1c <7 indicator)</i>		
<i>HbA1c Testing</i>	82.60%	R
<i>HbA1c Poor Control (>9.0%)</i>	44.02%	R
<i>HbA1c Control (<8.0%)</i>	44.33%	R
<i>Eye Exam</i>	45.70%	R
<i>Medical Attention for Nephropathy</i>	87.35%	R
<i>Blood Pressure Controlled <140/90 mm Hg</i>	57.41%	R
<i>Annual Monitoring for Patients on Persistent Medications</i>		
<i>ACE Inhibitors or ARBs</i>	85.93%	R
<i>Digoxin</i>	NA	NA
<i>Diuretics</i>	84.95%	R
<i>Total</i>	85.46%	R
<i>Statin Therapy for Patients With Diabetes</i>		
<i>Received Statin Therapy</i>	59.83%	R
<i>Statin Adherence 80%</i>	54.71%	R
<i>Statin Therapy for Patients With Cardiovascular Disease</i>		
<i>Received Statin Therapy—Males—Ages 21 to 75 Years</i>	80.28%	R

HEDIS Measure	2017 HEDIS Rate	Audit Result
<i>Received Statin Therapy—Females—Ages 40 to 75 Years</i>	62.90%	R
<i>Received Statin Therapy—Total</i>	72.18%	R
<i>Statin Adherence 80%—Males—Ages 21 to 75 Years</i>	52.63%	R
<i>Statin Adherence 80%—Females—Ages 40 to 75 Years</i>	56.41%	R
<i>Statin Adherence 80%—Total</i>	54.17%	R
<i>Use of Imaging Studies for Low Back Pain</i>	65.53%	R
<i>Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis</i>	65.57%	R
<i>Pharmacotherapy Management of COPD Exacerbation</i>		
<i>Systemic corticosteroid</i>	64.16%	R
<i>Bronchodilator</i>	81.82%	R
<i>Asthma Medication Ratio</i>		
<i>5–11 Years</i>	54.46%	R
<i>12–18 Years</i>	37.06%	R
<i>19–50 Years</i>	34.72%	R
<i>51–64 Years</i>	38.46%	R
<i>Total</i>	42.41%	R
<i>Medication Management for People With Asthma</i>		
<i>Medication Compliance 50%</i>		
<i>5–11 Years</i>	41.46%	R
<i>12–18 Years</i>	42.76%	R
<i>19–50 Years</i>	54.42%	R
<i>51–64 Years</i>	70.83%	R
<i>Total</i>	47.83%	R
<i>Medication Compliance 75%</i>		
<i>5–11 Years</i>	16.59%	R
<i>12–18 Years</i>	15.79%	R
<i>19–50 Years</i>	31.97%	R
<i>51–64 Years</i>	41.67%	R
<i>Total</i>	22.64%	R
<i>Use of Spirometry Testing in the Assessment and Diagnosis of COPD</i>	22.47%	R
<i>Disease-Modifying Anti-Rheumatic Drug Therapy in Rheumatoid Arthritis</i>	86.49%	R
<i>Chlamydia Screening in Women</i>		
<i>16–20 Years</i>	68.65%	R
<i>21–24 Years</i>	68.85%	R
<i>Total</i>	68.73%	R
<i>Breast Cancer Screening</i>	51.85%	R
<i>Cervical Cancer Screening</i>	45.77%	R
<i>Non-Recommended Cervical Cancer Screening in Adolescent Females</i>	0.06%	R

HEDIS Measure	2017 HEDIS Rate	Audit Result
Adult BMI Assessment	81.03%	R
Anti-depressant Medication Management		
<i>Effective Acute Phase Treatment</i>	49.05%	R
<i>Effective Continuation Phase Treatment</i>	31.02%	R
Follow-up Care for Children Prescribed ADHD Medication		
<i>Initiation Phase</i>	26.88%	R
<i>Continuation and Maintenance Phase</i>	NA	NA
Use of Multiple Concurrent Antipsychotics in Children and Adolescents		
<i>Ages 1 to 5 Years</i>	NA	NA
<i>Ages 6 to 11 Years</i>	NA	NA
<i>Ages 12 to 17 Years</i>	0.00%	R
<i>Total</i>	0.00%	R
Persistence of Beta-Blocker Treatment After a Heart Attack	NA	NA
Ambulatory Care: Emergency Department Visits and Outpatient Visits		
<i>Outpatient Visits per 1,000 MM</i>	193.35	R
<i>ED Visits per 1,000 MM</i>	42.22	R
Inpatient Utilization—General Hospital/Acute Care		
<i>Discharges per 1,000 MM (Total Inpatient)</i>	4.85	R
<i>Days per 1,000 MM (Total Inpatient)</i>	21.39	R
<i>Average Length of Stay (Total Inpatient)</i>	4.41	R
<i>Discharges per 1,000 MM (Medicine)</i>	2.63	R
<i>Days per 1,000 MM (Medicine)</i>	10.36	R
<i>Average Length of Stay (Medicine)</i>	3.94	R
<i>Discharges per 1,000 MM (Surgery)</i>	0.81	R
<i>Days per 1,000 MM (Surgery)</i>	7.11	R
<i>Average Length of Stay (Surgery)</i>	8.79	R
<i>Discharges per 1,000 MM (Maternity)</i>	2.07	R
<i>Days per 1,000 MM (Maternity)</i>	5.78	R
<i>Average Length of Stay (Maternity)</i>	2.79	R
Antibiotic Utilization		
<i>Average Scrips for PMPY for Antibiotics (All Ages)</i>	0.31	R
<i>Averages Days Supplied per Antibiotic Scrip (All Ages)</i>	9.28	R
<i>Average Scrips PMPY for Antibiotics of Concern (All Ages)</i>	0.09	R
<i>Percentage of Antibiotics of Concern of All Antibiotic Scrips (All Ages)</i>	27.79%	R
Frequency of Selected Procedures (Procedures per 1,000 MM)		
<i>Bariatric Weight Loss Surgery (0–19 Male)</i>	0.00	R
<i>Bariatric Weight Loss Surgery (0–19 Female)</i>	0.00	R
<i>Bariatric Weight Loss Surgery (20–44 Male)</i>	0.01	R

HEDIS Measure	2017 HEDIS Rate	Audit Result
<i>Bariatric Weight Loss Surgery (20–44 Female)</i>	0.05	R
<i>Bariatric Weight Loss Surgery (45–64 Male)</i>	0.02	R
<i>Bariatric Weight Loss Surgery (45–64 Female)</i>	0.02	R
<i>Tonsillectomy (0–9 Male & Female)</i>	0.29	R
<i>Tonsillectomy (10–19 Male & Female)</i>	0.16	R
<i>Hysterectomy, Abdominal (15–44 Female)</i>	0.06	R
<i>Hysterectomy, Abdominal (45–64 Female)</i>	0.10	R
<i>Hysterectomy, Vaginal (15–44 Female)</i>	0.02	R
<i>Hysterectomy, Vaginal (45–64 Female)</i>	0.15	R
<i>Cholecystectomy, Open (30–64 Male)</i>	0.01	R
<i>Cholecystectomy, Open (15–44 Female)</i>	0.01	R
<i>Cholecystectomy, Open (45–64 Female)</i>	0.04	R
<i>Cholecystectomy (Laparoscopic) (30–64 Male)</i>	0.05	R
<i>Cholecystectomy (Laparoscopic) (15–44 Female)</i>	0.40	R
<i>Cholecystectomy (Laparoscopic) (45–64 Female)</i>	0.33	R
<i>Back Surgery (20–44 Male)</i>	0.07	R
<i>Back Surgery (20–44 Female)</i>	0.03	R
<i>Back Surgery (45–64 Male)</i>	0.36	R
<i>Back Surgery (45–64 Female)</i>	0.33	R
<i>Mastectomy (15–44 Female)</i>	0.01	R
<i>Mastectomy (45–64 Female)</i>	0.06	R
<i>Lumpectomy (15–44 Female)</i>	0.07	R
<i>Lumpectomy (45–64 Female)</i>	0.19	R