COLORADO
Department of Health Care Policy & Financing

FY 2015–2016 Physical Health Performance Measure Validation Report for The Department's Fee-for-Service Population

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This report was produced by Health Services Advisory Group, Inc., for the Colorado Department of Health Care Policy & Financing.

HSAG HEALTH SERVICES ADVISORY GROUP

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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 its **Fee-for-Service** (**FFS**) population for fiscal year (FY) 2015–2016.

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 (CY) 2015 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, which meets the BBA requirement for validation of performance measures. 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.[2]

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

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

The Department underwent an NCQA HEDIS Compliance Audit™[,3] 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 *2016 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

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

[2] 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: http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Quality-of-Care-External-Quality-Review.html. Accessed on: Sept 1, 2016.

[3] NCQA HEDIS Compliance Audit™ is a trademark of NCQA. The purpose of conducting a HEDIS audit is to ensure that rates submitted by the Department 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.

reviewed, 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 2016 Technical Specifications, Volume 2*, and the reporting method required by the Department.

Table 1—Health First Colorado[4] 2016 Performance Measure Reporting Set

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

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

Performance Measures	Reporting Methodology
Asthma Medication Ratio	Administrative
Medication Management for People With Asthma	Administrative
Use of Spirometry Testing in the Assessment and Diagnosis of COPD	Administrative
Disease-Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis	Administrative
Chlamydia Screening in Women	Administrative
Breast Cancer Screening	Administrative
Cervical Cancer Screening	Hybrid
Non-Recommended Cervical Cancer Screening in Adolescent Females	Administrative
Adult Body Mass Index (BMI) Assessment	Hybrid
Anti-depressant Medication Management	Administrative
Follow-up Care for Children Prescribed Attention Deficit Hyperactivity Disorder (ADHD) Medication	Administrative
Ambulatory Care: Emergency Department Visits and Outpatient Visits	Administrative
Inpatient Utilization—General Hospital/Acute Care	Administrative
Antibiotic Utilization	Administrative
Frequency of Selected Procedures	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 the Department. 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 the Department.

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
Pre-on-site Visit/Meeting—The initial conference call or meeting between the LOs and the Department's staff.	HSAG verified that key HEDIS topics such as timelines and on-site review dates were addressed by the LOs.
Roadmap Review—This review provided the LOs with background information on policies, processes, and data in preparation for on-site validation activities. The Department was required to complete the Roadmap to provide the audit team with the necessary information to begin review activities.	HSAG looked for evidence in the final report that the LOs conducted a thorough review of all components of the Roadmap.
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 the Department uses a vendor who participates in NCQA's measure certification process.	If the Department 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.

Key Steps According to NCQA's HEDIS Compliance Audit	HSAG's Approach on Validating the LO's Audit Results
Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Survey Vendor and Sample Frame Validation—A certified survey vendor must be used if the Department performed a CAHPS survey as part of HEDIS reporting.[5]	HSAG verified that the LO performed detailed validations on the CAHPS Sample Frame if the Department performed a CAHPS survey as part of HEDIS reporting. If the Department used a survey vendor to perform the CAHPS surveys, HSAG verified that an NCQA-Certified survey vendor was used.
Supplemental Data Validation—If the Department used any supplemental data for reporting, the LO was to validate the supplemental data according to NCQA's guideline.	HSAG verified whether the LO was following the NCQA-required approach while validating the supplemental databases.
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.	HSAG verified that the LOs determined whether or not the Department 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.
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.	HSAG reviewed whether or not the LOs performed a review of the medical record review processes used by the Department 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.
IDSS Review—The Department 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 the Department. The auditor locks the IDSS so that no information can be changed.	HSAG verified that the LOs completed the IDSS review process.

[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 the Department's LO while conducting its 2016 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 the Department contracted with to perform the required tasks.

Table 3—Validation Activities for the Department

Licensed Organization	Health Services Advisory Group, Inc. (HSAG)
Pre-on-site Visit Call/Meeting	✓
Roadmap Review	✓
Software Vendor	IMI Health
Source Code/Certified Measure Review	✓
Survey Vendor	Survey sample frame validation was not applicable to the scope of the audit.
CAHPS Sample Frame Validation	Survey sample frame validation was not applicable to the scope of the audit.
Supplemental Data Validation	✓
Medical Record Review	✓
IDSS Review	✓

Table 3 indicates that the audit conducted for the Department 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.

The Department's Compliance With IS Standards

In addition to ensuring that data were captured, reported, and presented in a uniform manner, HSAG evaluated the Department's information system (IS) capabilities for accurate HEDIS reporting. HSAG reviewed the Department's final audit report for its LO's assessments of IS capabilities, specifically focused on those aspects of the Department'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 the Department 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 *2016 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 the Department'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. The Department 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, information systems and processes used by the Department to calculate performance measures for the **FFS** population were found adequate to meet NCQA's IS standards and the HEDIS determination reporting requirements. The section that follows provides a summary of 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.

Table 4—Summary of the Department's Compliance With IS Standards

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2016 Final Audit Report
IS 1.0—Medical Services Data—Sound Coding Methods and Data Capture, Transfer, and Entry • 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.	The Department was fully compliant with IS Standard 1.0. It continued to contract with Xerox Services (Xerox) to process claims in its Medicaid Management Information System (MMIS). Almost all of the claims (more than 99 percent) were received electronically; only industry-standard codes were allowed in claims submissions. Claims for vision and laboratory services were processed the same way as other medical claims. Xerox's process of receiving and processing claims was highly automated. Claims were received primarily through clearinghouses or a Web portal and underwent a series of edits before being loaded to MMIS for adjudication. The auto-adjudication rate for medical claims was 99 percent. Pharmacy claims were processed via the Prescription Drug Claims System (PDCS), which was also operated by Xerox. All pharmacy claims were paid electronically at the point of sale. PDCS had an interface with the MMIS, and pharmacy claims data were loaded to MMIS nightly. The Department contracted with DentaQuest to provide dental services to its members for CY 2015. Encounters received from DentaQuest were processed by Xerox the

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2016 Final Audit Report
	same way as the other medical claims (into MMIS). Although the Department did not have any independent claim audits, ongoing vendor oversight was evident via weekly and monthly meetings as well as report monitoring. On-site discussion suggested that the ICD-10 implementation, effective October 1, 2015, did not have any major adverse impact on claims submission by the providers. During on-site record tracing verification, the auditor also checked that MMIS had all the data elements required for HEDIS reporting. The auditor did not have any major concerns about the Department's medical service data processing.
IS 2.0—Enrollment Data—Data Capture, Transfer, and Entry • 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. • 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.	The Department was fully compliant with IS Standard 2.0. During CY 2015, the Medicaid population increased by 12.4 percent; the majority of the increase occurred in the Expansion Adult category. Similar to prior years, Medicaid client eligibility data initially resided in the Colorado Benefits Management System (CBMS), a rule-based system in which a client's Medicaid and other program eligibility were determined. Deloitte was the contractor the Department used for processing all data in CBMS. Individuals applying for Medicaid submitted an application by contacting a county technician or online via the Department's Program Eligibility and Application Kit (PEAK) system. Nightly, changes in the Medicaid eligibility data were sent from CBMS to MMIS, and Xerox was contracted by the Department to process eligibility data within MMIS. A full file load was also transferred from CBMS to MMIS monthly to ensure that data in both systems were synchronized. The file load process was highly automated, and completeness of data transmission was monitored via load balancing reports. Manual review occurred whenever there was a load failure. Within MMIS, all eligibility data elements required for HEDIS reporting were present, including the client's enrollment history, by specific programs (e.g., Medicaid versus Child Health Plus). Oversight of Deloitte and Xerox's performance in handling and processing eligibility data was in the form of frequent, regular

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2016 Final Audit Report
	meetings and review of reports. The auditor did not have any major concerns on how eligibility data were received and processed.
IS 3.0—Practitioner Data—Data Capture, Transfer, and Entry • 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.	The Department was fully compliant with IS Standard 3.0. As in previous years, Xerox managed the entire provider application process on behalf of the Department, including security checks and validation of licenses to ensure provider eligibility. Within MMIS, each provider was assigned a unique provider identification number. Provider data were entered manually by Xerox into MMIS. Xerox had a process in place to ensure the accuracy of data entry via verification of records from random samples against the original application forms. Xerox was also contracted by the Department to process provider data for claims processing purposes. Beginning September 2015, the Department's new claims processing vendor, Hewlett Packard (HP), began the provider reenrollment process. This process allowed the providers to supply updated and more complete information to the Department and did not impact the completeness of provider data currently existing in MMIS. The Department relied on weekly meetings and operations reports to monitor Xerox's performance. Provider type mapping was reviewed, and the cross-walk of provider types to the required specialties for HEDIS reporting was considered appropriate. During the on-site visit, the challenges of having reliable specialty data were discussed. In Colorado, one third of the primary care services was provided at federally qualified health centers and rural health clinics, yet due to Colorado's unique billing requirements, rendering provider information was not captured in the claims. As a result, primary care services provided by these facilities were not included in the rates for measures requiring provider specialty information based on NCQA's specification. Unless the specification relaxes this specific requirement, the rates may not reflect the true performance rates. With the exception of this caveat, the auditor did not have any concerns about how practitioner data were processed.

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2016 Final Audit Report
IS 4.0—Medical Record Review Processes—Training, Sampling, Abstraction, and Oversight • 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.	The Department was fully compliant with IS Standard 4.0. The Department contracted HSAG's Analytics and Informatics (A&I) team to oversee the entire medical record data review process. A&I subcontracted Guardian Angel Consulting for medical record procurement and abstraction. HSAG reviewed the IS 4.0 Roadmap pertaining to the policies and procedures for IS standards 4.1, 4.2, 4.3, 4.4, and 4.5. The Roadmap review found these policies and procedures to be consistent with NCQA's *2016 HEDIS Compliance Audit: Standards, Policies, and Procedures, Volume 5*. Hybrid samples were drawn according to the HEDIS sampling guidelines, and measure-specific oversample was considered appropriate. Provider chase logic was reviewed and determined to be appropriate across all hybrid measures. Guardian Angel Consulting used IMI Health's ChartNet abstraction tools to facilitate medical record procurement and abstractions. HSAG participated in a live vendor demonstration of IMI Health's tools and instructions. All fields, edits, and drop-down boxes were reviewed for accuracy against NCQA's *HEDIS 2016, Volume 2, Technical Specifications for Health Plans*. The Department conducted appropriate oversight of its vendor through quality assurance reviews, including over-reads of all abstractions resulting in numerator positives or exclusions, and a random sample of numerator negatives. Due to changes in the 2016 technical specifications, a convenience sample was required for the following measures: *Adult BMI Assessment (ABA)*, and *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents (WCC)—BMI Percentile Documentation* and *Counseling for Physical Activity*. HSAG completed the convenience sample review and did not find any issues.

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2016 Final Audit Report
	The Department passed the medical record review validation (MRRV) process for the following measure groups: Group A: Biometrics (BMI, BP) & Maternity—*WCC-BMI* Group B: Anticipatory Guidance & Counseling—*WCC-Physical Activity* Group C: Laboratory—*CDC-Nephropathy* Group D: Immunization & Other Screenings—*CDC-Eye Exam* Group F: Exclusions Upon validation of the *WCC-BMI* measure, a critical error was detected. According to the NCQA MRRV protocol, a second sample was required and subsequently passed the validation.
IS 5.0—Supplemental Data—Capture, Transfer, and Entry • 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.	The Department was fully compliant with IS Standard 5.0. The Department contracted A&I to manage the entire HEDIS production, including procurement of supplemental data from the Colorado Immunization Information System (CIIS) registry. A&I subcontracted IMI Health to integrate all data sources and calculate the measures. Effective procedures for collecting measure-relevant information were noted. Part of the supplemental data collection process involved the generation of a data file that was sent to the registry for data collection. The CIIS data were collected annually to supplement immunization-related rates. This file contained all eligible members with numerator negatives for the *Childhood Immunization Status (CIS)—Combination 10* and *Immunizations for Adolescents (IMA)—Combination 1* measures. The file was reviewed by A&I before it was sent to the registry for immunization data extraction. The registry staff has standard processes and procedures for extracting immunization data and providing an outbound file to A&I. Basic validation was performed on the immunization data file received from the registry before it was sent to IMI Health for data integration. Although the process was not automated, adequate control was present to ensure data completeness and accuracy.

NCQA's IS Standards	IS Standards Compliance Findings Based on HSAG's Review of the HEDIS 2016 Final Audit Report
	There were no major issues or concerns regarding the processing of supplemental immunization data. The CIIS data were considered standard supplemental data and were approved for HEDIS 2016 reporting.
IS 6.0—Member Call Center Data—Capture, Transfer, and Entry	IS Standard 6.0 was not applicable to the measures under the scope of the audit.
IS 7.0—Data Integration—Accurate Reporting, Control Procedures That Support Measure Reporting Integrity • 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.	The Department was fully compliant with IS Standard 7.0. There were no changes in the Department's processes for data transfer, data preparation, and file consolidations from prior year's processes for HEDIS 2016 reporting. All data sources (medical, pharmacy, provider, and eligibility) were transferred from MMIS to the Department's Decision Support System (DSS) weekly by Xerox. The Department and its contractor followed a well-defined HEDIS production timeline for data integration and rate calculation. In December 2015, A&I began to extract data from DSS and formatted the data according to IMI Health's (A&I's calculation vendor) required data specification. To ensure data reasonableness, A&I monitored data download statistics and conducted data checks and year-to-year comparisons. Upon receiving the data from A&I, IMI Health generated a data assessment report and discussed potential data completeness and accuracy issues with A&I and the Department. A&I held regular meetings with IMI Health to monitor its performance. The auditor began record tracing verification during the on-site visit on selected measures to fulfill NCQA's Query 3—On-site Drill-down audit requirement. The verification was eventually completed post-on-site with no major issues. Results for other queries requested were reviewed with no concerns. IMI Health underwent NCQA's measure certification program, and all measures were approved. The Department submitted preliminary and final rates and provided feedback in a timely manner. A&I was able to provide sufficient information and data results to resolve questions raised by the auditor. The auditor did not have any major concerns about the rates produced for HEDIS 2016.

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 *2016 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 *2016 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 not applicable to the measures under the scope of the audit.

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 the Department. Please note that the Department was not required to report the *Prenatal and Postpartum Care* measure and received an "NQ" designation for this measure.

The Department reported five measures *(Childhood Immunization Status; Immunizations for Adolescents; Well-Child Visits in the First 15 Months of Life; Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life;* and *Adolescent Well-Care Visits)* using administrative-only data collection methodology.

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	***R***
HEDIS specifications were followed but the denominator was too small to report a valid rate.	Denominator <30	***NA***
The health plan did not offer the health benefits required by the measure.	No Benefit (Benefit Not Offered)	***NB***
The health plan chose not to report the measure.	Not Reported	***NR***
The health plan was not required to report the measure.	Not Required	***NQ***
The rate calculated by the health plan was materially biased.	Biased Rate	***BR***
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	***UN***

Table B-2—The Department's Rates and Audit Results

HEDIS Measure	2016 HEDIS Rate	Audit Result
Childhood Immunization Status		
DTaP	62.13%	***R***
IPV	78.19%	***R***
MMR	79.94%	***R***
HiB	72.97%	***R***
Hepatitis B	79.64%	***R***
VZV	79.28%	***R***
Pneumococcal Conjugate	65.49%	***R***
Hepatitis A	70.48%	***R***
Rotavirus	58.81%	***R***
Influenza	34.44%	***R***
Combination #2	53.24%	***R***
Combination #3	50.63%	***R***
Combination #4	47.23%	***R***
Combination #5	41.45%	***R***
Combination #6	23.73%	***R***
Combination #7	38.85%	***R***
Combination #8	22.55%	***R***
Combination #9	20.35%	***R***
Combination #10	19.35%	***R***
Immunizations for Adolescents		
Meningococcal	64.94%	***R***
Tdap/Td	78.88%	***R***
Combination 1	63.79%	***R***
Well-Child Visits in the First 15 Months of Life		
0 Visits	4.72%	***R***
6+ Visits	47.02%	***R***
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	56.65%	***R***
Adolescent Well-Care Visits	31.67%	***R***
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents		
BMI Percentile (3–11 Years)	59.36%	***R***
BMI Percentile (12–17 Years)	58.75%	***R***
BMI Percentile (Total)	59.12%	***R***
Counseling for Nutrition (3–11 Years)	60.16%	***R***
Counseling for Nutrition (12–17 Years)	56.25%	***R***

HEDIS Measure	2016 HEDIS Rate	Audit Result
Counseling for Nutrition (Total)	58.64%	***R***
Counseling for Physical Activity (3–11 Years)	46.61%	***R***
Counseling for Physical Activity (12–17 Years)	50.00%	***R***
Counseling for Physical Activity (Total)	47.93%	***R***
Appropriate Testing for Children With Pharyngitis	72.82%	***R***
Annual Dental Visit		
2–3 Years	54.11%	***R***
4–6 Years	65.53%	***R***
7–10 Years	68.81%	***R***
11–14 Years	64.18%	***R***
15–18 Years	53.62%	***R***
19–21 Years	34.54%	***R***
Total	60.59%	***R***
Appropriate Treatment for Children With Upper Respiratory Infection	91.59%	***R***
Children's and Adolescents' Access to Primary Care Practitioners		
12–24 Months	91.97%	***R***
25 Months–6 Years	79.33%	***R***
7–11 Years	83.17%	***R***
12–19 Years	82.62%	***R***
Prenatal and Postpartum Care		
Timeliness of Prenatal Care	***NQ***	***NQ***
Postpartum Care	***NQ***	***NQ***
Adults' Access to Preventive/Ambulatory Health Services		
20–44 Years	63.77%	***R***
45–64 Years	74.61%	***R***
65+ Years	74.72%	***R***
Total	67.91%	***R***
Controlling High Blood Pressure	58.64%	***R***
Comprehensive Diabetes Care (excluding HbA1c <7 indicator)		
HbA1c Testing	77.13%	***R***
HbA1c Poor Control (>9.0%)	55.96%	***R***
HbA1c Control (<8.0%)	36.74%	***R***
Eye Exam	39.66%	***R***
Medical Attention for Nephropathy	85.16%	***R***
Blood Pressure Controlled <140/90 mm Hg	57.42%	***R***
Annual Monitoring for Patients on Persistent Medications		
ACE Inhibitors or ARBs	83.49%	***R***
Digoxin	55.51%	***R***

HEDIS Measure	2016 HEDIS Rate	Audit Result
Diuretics	83.57%	R
Total	83.37%	R
Use of Imaging Studies for Low Back Pain	76.92%	R
Avoidance of Antibiotic Treatment in Adults With Acute Bronchitis	30.46%	R
Pharmacotherapy Management of COPD Exacerbation		
Systemic corticosteroid	68.45%	R
Bronchodilator	82.29%	R
Asthma Medication Ratio		
5–11 Years	72.46%	R
12–18 Years	61.45%	R
19–50 Years	51.73%	R
51–64 Years	61.85%	R
Total	62.20%	R
Medication Management for People With Asthma		
Medication Compliance 50%		
5–11 Years	71.42%	R
12–18 Years	65.54%	R
19–50 Years	70.80%	R
51–64 Years	81.16%	R
Total	70.44%	R
Medication Compliance 75%		
5–11 Years	47.88%	R
12–18 Years	42.53%	R
19–50 Years	49.02%	R
51–64 Years	58.84%	R
Total	47.64%	R
Use of Spirometry Testing in the Assessment and Diagnosis of COPD	25.11%	R
Disease-Modifying Anti-Rheumatic Drug Therapy in Rheumatoid Arthritis	80.72%	R
Chlamydia Screening in Women		
16–20 Years	46.75%	R
21–24 Years	55.50%	R
Total	51.17%	R
Breast Cancer Screening	29.79%	R
Cervical Cancer Screening	47.45%	R
Non-Recommended Cervical Cancer Screening in Adolescent Females	1.39%	R
Adult BMI Assessment	71.53%	R
Anti-depressant Medication Management		
Effective Acute Phase Treatment	67.72%	R

HEDIS Measure	2016 HEDIS Rate	Audit Result
Effective Continuation Phase Treatment	53.53%	R
Follow-up Care for Children Prescribed ADHD Medication		
Initiation Phase	35.26%	R
Continuation and Maintenance Phase	35.36%	R
Ambulatory Care: Emergency Department Visits and Outpatient Visits		
Outpatient Visits per 1,000 MM	277.74	R
ED Visits per 1,000 MM	59.69	R
Inpatient Utilization—General Hospital/Acute Care		
Discharges per 1,000 MM (Total Inpatient)	7.21	R
Days per 1,000 MM (Total Inpatient)	31.36	R
Average Length of Stay (Total Inpatient)	4.35	R
Discharges per 1,000 MM (Medicine)	3.50	R
Days per 1,000 MM (Medicine)	13.81	R
Average Length of Stay (Medicine)	3.95	R
Discharges per 1,000 MM (Surgery)	1.71	R
Days per 1,000 MM (Surgery)	12.48	R
Average Length of Stay (Surgery)	7.31	R
Discharges per 1,000 MM (Maternity)	2.86	R
Days per 1,000 MM (Maternity)	7.23	R
Average Length of Stay (Maternity)	2.53	R
Antibiotic Utilization		
Average Scrips for PMPY for Antibiotics (All Ages)	0.99	R
Averages Days Supplied per Antibiotic Scrip (All Ages)	9.75	R
Average Scrips PMPY for Antibiotics of Concern (All Ages)	0.38	R
Percentage of Antibiotics of Concern of All Antibiotic Scrips (All Ages)	38.20%	R
Frequency of Selected Procedures (Procedures per 1,000 MM)		
Bariatric Weight Loss Surgery (0–19 Male)	0.00	R
Bariatric Weight Loss Surgery (0–19 Female)	0.00	R
Bariatric Weight Loss Surgery (20–44 Male)	0.01	R
Bariatric Weight Loss Surgery (20–44 Female)	0.05	R
Bariatric Weight Loss Surgery (45–64 Male)	0.01	R
Bariatric Weight Loss Surgery (45–64 Female)	0.07	R
Tonsillectomy (0–9 Male & Female)	0.59	R
Tonsillectomy (10–19 Male & Female)	0.36	R
Hysterectomy, Abdominal (15–44 Female)	0.10	R
Hysterectomy, Abdominal (45–64 Female)	0.24	R
Hysterectomy, Vaginal (15–44 Female)	0.14	R

HEDIS Measure	2016 HEDIS Rate	Audit Result
Hysterectomy, Vaginal (45–64 Female)	0.18	***R***
Cholecystectomy, Open (30–64 Male)	0.05	***R***
Cholecystectomy, Open (15–44 Female)	0.02	***R***
Cholecystectomy, Open (45–64 Female)	0.04	***R***
Cholecystectomy (Laparoscopic) (30–64 Male)	0.38	***R***
Cholecystectomy (Laparoscopic) (15–44 Female)	0.73	***R***
Cholecystectomy (Laparoscopic) (45–64 Female)	0.72	***R***
Back Surgery (20–44 Male)	0.29	***R***
Back Surgery (20–44 Female)	0.24	***R***
Back Surgery (45–64 Male)	0.88	***R***
Back Surgery (45–64 Female)	0.85	***R***
Mastectomy (15–44 Female)	0.04	***R***
Mastectomy (45–64 Female)	0.25	***R***
Lumpectomy (15–44 Female)	0.10	***R***
Lumpectomy (45–64 Female)	0.30	***R***