State of Michigan
Department of Community Health

Behavioral Health and Developmental Disabilities Administration

Prepaid Inpatient Health Plans

STATE FISCAL YEAR 2014

VALIDATION OF PERFORMANCE MEASURES

for

Region 5—Mid-State Health Network

September 2014

HSAG HEALTH SERVICES ADVISORY GROUP

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HSAG HEALTH SERVICES ADVISORY GROUP

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for **Mid-State Health Network**

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Validation of Performance Measures

for **Mid-State Health Network**

Validation Overview

Validation of performance measures is one of three mandatory external quality review (EQR) activities required by the Balanced Budget Act of 1997 (BBA). State Medicaid agencies must ensure that performance measures reported by their managed care organizations (MCOs) are validated. The State, its agent that is not an MCO, or an external quality review organization (EQRO) can perform this validation. Health Services Advisory Group, Inc. (HSAG), the EQRO for the State of Michigan Department of Community Health (MDCH), Behavioral Health and Developmental Disabilities Administration, conducted the validation activities for the prepaid inpatient health plans (PIHPs) that provided mental health and substance abuse services to Medicaid-eligible recipients.

In 2013, MDCH issued an *Application for Participation for Specialty Prepaid Inpatient Health Plans* and selected 10 regional entities to manage the Medicaid specialty benefit for the entire region defined by MDCH. HSAG conducted the state fiscal year (SFY) 2014 validation activities for the 10 regional entities 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.*

For PIHPs that were new regional entities, HSAG conducted a readiness review to prepare them for SFY 2015 performance measure (indicator) reporting. The readiness review assessed the data collection and reporting processes used by the PIHPs to determine their capability of reporting the MDCH-required performance indicators. The new PIHPs were not required to report rates for SFY 2014.

Prepaid Inpatient Health Plan (PIHP) Information

Information about **Mid-State Health Network** appears in Table 1.

Table 1—Mid-State Health Network Information	
PIHP Name:	Mid-State Health Network
PIHP Site Visit Location:	530 W. Ionia St., Lansing, MI 48933
PIHP Contact:	Amanda Brown, Chief Compliance Officer
Contact Telephone Number:	517.253.7551
Contact E-mail Address:	Amanda.brown@midstatehealthnetwork.org
Site Visit Date:	07/09/2014

Performance Measures Validated

HSAG validated a set of performance indicators that were developed and selected by MDCH for validation. The reporting cycle and measurement period were specified for each indicator by MDCH. Table 2 lists the audited performance indicators calculated by the PIHPs for different populations for the first quarter of Michigan SFY 2014, which began October 1, 2013, and ended December 31, 2013. Table 3 lists the audited performance indicators calculated by MDCH, each with its specific measurement period. The indicators are numbered as they appear in the MDCH Codebook. Please note for the PIHPs that were new regional entities, HSAG only reviewed the indicators calculated by the PIHPs for the second quarter SFY 2014 measurement period, which began January 1, 2014, and ended March 31, 2014.

Table 2—List of Audited Performance Indicators Calculated by PIHPs

	Indicator	Sub-Populations
#1	The percentage of Medicaid beneficiaries receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours.	◆ Children ◆ Adults
#2	The percentage of new Medicaid beneficiaries during the quarter receiving a face-to-face assessment with a professional within 14 calendar days of a non-emergency request for service.	◆ MI-Adults ◆ MI-Children ◆ DD-Adults ◆ DD-Children ◆ Medicaid SA
#3	The percentage of new Medicaid beneficiaries during the quarter starting any needed ongoing service within 14 days of a non-emergent face-to-face assessment with a professional.	◆ MI-Adults ◆ MI-Children ◆ DD-Adults ◆ DD-Children
#4a	The percentage of discharges from a psychiatric inpatient unit during the quarter that were seen for follow-up care within 7 days.	◆ Children ◆ Adults
#4b	The percentage of discharges from a substance abuse detox unit during the quarter that were seen for follow-up care within 7 days.	◆ Consumers
#10	The percentage of readmissions of MI and DD children and adults during the quarter to an inpatient psychiatric unit within 30 days of discharge.	◆ MI and DD-Adults ◆ MI and DD-Children

MI = mental illness, DD = developmental disabilities, SA = substance abuse

Table 3—List of Audited Performance Indicators Calculated by MDCH			
Indicator		Sub-Populations	Measurement Period
#5	The percent of Medicaid recipients having received PIHP managed services.	◆ Medicaid Recipients	First Quarter SFY 2014
#6	The percent of Habilitation Supports Waiver (HSW) enrollees during the quarter with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination.	◆ HSW Enrollees	First Quarter SFY 2014
#8	The percent of (a) adults with mental illness, the percent of (b) adults with developmental disabilities, and the percent of (c) adults dually diagnosed with mental illness/developmental disabilities served by the CMHSPs* and PIHPs who are employed competitively.	◆ MI-Adults ◆ DD-Adults ◆ MI and DD Adults	SFY 2013
#9	The percent of (a) adults with mental illness, the percent of (b) adults with developmental disabilities, and the percent of (c) adults dually diagnosed with mental illness/developmental disabilities served by the CMHSPs and PIHPs who earned minimum wage or more from any employment activities.	◆ MI-Adults ◆ DD-Adults ◆ MI and DD Adults	SFY 2013
#13	The percent of adults with developmental disabilities served, who live in a private residence alone, with spouse, or non-relative(s).	◆ DD-Adults	SFY 2013
#14	The percent of adults with serious mental illness served, who live in a private residence alone, with spouse, or non-relative(s).	◆ MI-Adults	SFY 2013

*CMHSP = Community Mental Health Services Program

Description of Validation Activities

Preaudit Strategy

HSAG conducted the validation activities as outlined in the CMS Performance Measure Validation Protocol. HSAG obtained a list of the indicators selected by MDCH for validation. Indicator definitions and reporting templates were also provided by MDCH for review by the HSAG validation team. Based on the indicator definitions and reporting guidelines, HSAG developed indicator-specific worksheets derived from Attachment I of the CMS Performance Measure Validation Protocol.

HSAG prepared a documentation request, which included the Information Systems Capabilities Assessment Tool (ISCAT), Appendix V of the CMS Performance Measure Validation Protocol. In collaboration with MDCH and PIHP participants, HSAG customized the ISCAT to collect the necessary data consistent with Michigan's mental health service delivery model. The ISCAT was

forwarded to each PIHP with a timetable for completion and instructions for submission. HSAG fielded ISCAT-related questions directly from the PIHPs during the pre-on-site phase.

HSAG prepared an agenda describing all on-site visit activities and indicating the type of staff needed for each session. The agendas were forwarded to the respective PIHPs prior to the on-site visit. When requested, HSAG conducted pre-on-site conference calls with the PIHPs to discuss any outstanding ISCAT questions and on-site visit activities.

Validation Team

The HSAG performance measure validation (PMV) team was assembled based on the full complement of skills required for the validation and requirements of the particular PIHP. Some team members, including the lead auditor, participated in the on-site meetings at the PIHP location; others conducted their work at HSAG offices. Table 4 describes each team member's role and expertise.

Table 4—Validation Team

Name and Role	Skills and Expertise
David Mabb, MS, CHCA *Director, Audits/State & Corporate Services/Lead Auditor*	Certified HEDIS compliance auditor with extensive experience in leading HEDIS and PMV audits in multiple states. Additional experience in statistics, data analysis and management, state Medicaid programs, and source code programming knowledge.
Timea Jonas *Audit Specialist; Secondary Auditor*	Experienced auditor, claims processing and encounter data experience, health care fraud analysis experience.
Kalpna Shah, MPH, MBA *Audit Specialist; Secondary Auditor*	Experienced auditor, health care industry experience, quality improvement, and research and analysis.
Mariyah Badani, JD, MBA *Associate Director, Audits/State & Corporate Services*	Management of audit department, multiple years of auditing experience, data integration, systems review, and analysis.
Judy Yip-Reyes, PhD, CHCA *Source Code Review Manager & Associate Director, Audits/State & Corporate Services*	Auditing experience, HEDIS knowledge, performance measure knowledge, and source code review management.
Tammy GianFrancisco *Project Leader*	Project coordination and communication.

Technical Methods of Data Collection and Analysis

The CMS Performance Measure Validation Protocol identifies key types of data that should be reviewed as part of the validation process. The list below indicates the type of data collected and how HSAG conducted an analysis of these data:

- **Information Systems Capabilities Assessment Tool (ISCAT)**—The PIHPs were required to submit a completed ISCAT that provided information on its information systems, processes used for collecting and processing data, and processes used for performance measure calculation. Coordinating Agencies (CAs) were required to submit a mini version of the ISCAT. Upon receipt by HSAG, the ISCAT(s) underwent a cursory review to ensure each section was complete and all applicable attachments were present. HSAG then thoroughly reviewed all documentation, noting any potential issues, concerns, and items that needed additional clarification. Where applicable, HSAG used the information provided in the ISCAT(s) to begin completion of the review tools.
- **Source code (programming language) for performance indicators**—PIHPs that calculated the performance indicators using computer programming language were required to submit source code for each performance indicator being validated. HSAG completed line-by-line review on the supplied source code to ensure compliance with the State-defined performance indicator specifications. HSAG identified areas of deviation from the specifications, evaluating the impact to the indicator and assessing the degree of bias (if any). PIHPs that did not use computer programming language to calculate the performance indicators were required to submit documentation describing the steps the PIHP took for indicator calculation.
- **Performance indicator reports**—HSAG also reviewed the PIHP performance indicator reports provided by MDCH for the first quarter of SFY 2014. Previous reports were used along with the current reports to assess trending patterns and rate reasonability.
- **Supporting documentation**—The PIHPs submitted documentation to HSAG that provided additional information to complete the validation process, including policies and procedures, file layouts, system flow diagrams, system log files, and data collection process descriptions. HSAG reviewed all supporting documentation, with issues or clarifications flagged for follow-up.

On-site Activities

HSAG conducted on-site visits with each PIHP. HSAG collected information using several methods including interviews, system demonstration, review of data output files, primary source verification, observation of data processing, and review of data reports. The on-site visit activities are described as follows:

- **Opening session**—The opening session included introductions of the validation team and key PIHP staff members involved in the performance measure validation activities. Discussion during the session covered the review purpose, the required documentation, basic meeting logistics, and queries to be performed.
- **Evaluation of system compliance**—The evaluation included a review of the information systems, focusing on the processing of enrollment and disenrollment data. Additionally, HSAG

evaluated the processes used to collect and calculate the performance indicators, including accurate numerator and denominator identification, and algorithmic compliance (which evaluated whether rate calculations were performed correctly, all data were combined appropriately, and numerator events were counted accurately). Based on the desk review of the ISCAT(s), HSAG conducted interviews with key PIHP staff members familiar with the processing, monitoring, and calculation of the performance indicators. HSAG used interviews to confirm findings from the documentation review, expand or clarify outstanding issues, and verify that written policies and procedures were used and followed in daily practice.

- **Overview of data integration and control procedures**—The overview included discussion and observation of source code logic, a review of how all data sources were combined, and how the analytic file used for reporting the performance indicators was generated. HSAG performed primary source verification to further validate the output files. HSAG also reviewed any supporting documentation provided for data integration. This session addressed data control and security procedures as well.
- **Closing conference**—The closing conference summarized preliminary findings based on the review of the ISCAT and the on-site visit, and reviewed the documentation requirements for any post-on-site activities.

HSAG conducted several interviews with key **Mid-State Health Network** staff members and contractors who were involved with any aspect of performance indicator reporting. Table 5 displays a list of **Mid-State Health Network** key interviewees:

Table 5—List of Mid-State Health Network Interviewees

Name	Title
Nancy Miller	MSHN Chief Executive Officer (CEO)
Kathy Tilley	MSHN Chief Informational Officer (CIO)
Amanda Brown	MSHN Chief Compliance Officer (CCO)
Pam Keyes	MSHN Chief Financial Officer (CFO)
Joanne Holland	MSHN Contractor, CEI Business Analyst Manager
Sandra Gettel	MSHN Contractor, BABH Performance Improvement Manager
Stacia Chick	MSHN Contractor, CEI Chief Financial Officer (CFO)
Representatives from the 12 CMHSPs were available via telephone	

Data Integration, Data Control, and Performance Indicator Documentation

Several aspects involved in the calculation of performance indicators are crucial to the validation process. These include data integration, data control, and documentation of performance indicator calculations. Each of the following sections describes the validation processes used and the validation findings. For more detailed information, please see Appendix A.

Data Integration

Accurate data integration is essential to calculating valid performance indicators. The steps used to combine various data sources, including claims/encounter data, eligibility data, and other administrative data, must be carefully controlled and validated. HSAG validated the data integration process used by the PIHP, which included a review of file consolidations or extracts, a comparison of source data to warehouse files, data integration documentation, source code, production activity logs, and linking mechanisms. Overall, HSAG determined that the data integration processes in place at **Mid-State Health Network** were:

☒ Acceptable

☐ Not acceptable

Data Control

The organizational infrastructure of a PIHP must support all necessary information systems. Each PIHP's quality assurance practices and backup procedures must be sound to ensure timely and accurate processing of data and to provide data protection in the event of a disaster. HSAG reviewed the data control processes used by **Mid-State Health Network**, which included a review of disaster recovery procedures, data backup protocols, and related policies and procedures. Overall, HSAG determined that the data control processes in place at **Mid-State Health Network** were:

☒ Acceptable

☐ Not acceptable

Performance Indicator Documentation

Sufficient and complete documentation is necessary to support validation activities. While interviews and system demonstrations can provide supplementary information, HSAG based the majority of the validation review findings on documentation provided by the PIHP. HSAG reviewed all related documentation, which included the completed ISCAT, job logs, computer programming code, output files, work flow diagrams, narrative descriptions of performance indicator calculations, and other related documentation. Overall, HSAG determined that the documentation of performance indicator calculations by **Mid-State Health Network** was:

☒ Acceptable

☐ Not acceptable

Validation Results

HSAG identified overall strengths and areas for improvement for **Mid-State Health Network**. In addition, HSAG evaluated **Mid-State Health Network**'s data systems for the processing of each type of data used for reporting the MDCH performance indicators. General findings are indicated below:

PIHP Strengths

This was the first year that **Mid-State Health Network** underwent a formal IS capabilities assessment. **Mid-State Health Network** hired staff members from the former regional PIHP, who had prior experience with performance indicator (PI) and quality improvement (QI) data reporting requirements. This was an added advantage for this new entity. **Mid-State Health Network** also adopted a comprehensive committee structure. These committees have representatives from each CMHSP, who work closely together to resolve any issues or concerns related to the reporting process. All processes were appropriately documented. The PIHP has a comprehensive plan in place to switch from manual to automated validation. **Mid-State Health Network** has adequate oversight for all vendors to which it has delegated functions. The health plan demonstrated a strong commitment to performance indicator reporting. The rate calculation process was acceptable. It appears that the PIHP has adequate processes in place and has rate reporting capabilities for the next reporting year.

PIHP Areas for Improvement

The PIHP should continue to transition from manual to automated validation processes. This opportunity can be used for training and educating CMHSPs for possible improvement. It is recommended that the PIHP document each step of this process. Each CMHSP has a separate internal QI process; however, consolidating these processes under the PIHP's centralized QI process would be beneficial.

Eligibility Data System Findings

The review team had no major concerns with the eligibility data system. **Mid-State Health Network** has contracted with Clinton Eaton Ingham Community Mental Health Authority (CEI) for eligibility data processing. CEI obtains the 834 eligibility files from the State monthly, using FileZilla file transfer protocol (FTP) application software. These files are then uploaded to a "splitter" where the eligibility files are separated by each county. Each CMHSP receives eligibility data files specific to its county. Providers, staff, and PIHP affiliates are able to check real time eligibility through the State's Web site. The 834 eligibility files are matched against the 820 payment file. This matching helps to ensure that all members for whom payment was received have matching eligibility data. In addition, each CMHSP uses its own validation process for added quality checks.

Claims/Encounter Data System Findings

HSAG had no concerns with the way **Mid-State Health Network** received and processed its claims/encounters. Claims processing and performance measure data collection are completed at each individual CMHSP. For performance measure data, each CMHSP uploads a detailed data file into the **Mid-State Health Network** PI Portal testing database. Each file goes through a validation process prior to being submitted to the PIHP's production database. This process ensures that CMHSPs have the ability to monitor the quality and completeness of their submissions. All encounter files are required to be submitted in an 837 file format. **Mid-State Health Network** has contracted with CEI as its vendor for processing and submitting encounter data. The PIHP has contracted with Bay-Arenac Behavioral Health Authority (BABHA) to manage data flow related to performance measure calculation. After each CMHSP completes its submissions, the performance indicator data are aggregated and rates calculated. Several validation processes were in place to ensure that all submitted data, including PI, QI, and encounter are timely and accurate.

Quality Improvement (QI) Data Production

HSAG did not identify any issues or concerns with the PIHP's quality improvement data production process. **Mid-State Health Network** has contracted with Clinton Eaton Ingham Community Mental Health Authority (CEI) for preparation and submission of its QI file. Each CMHSP is responsible for uploading its data file to CEI via a Web portal monthly. As with the encounter file preparation and submission, the QI file preparation and submission processes were also highly automated. At the time of the audit, the PIHP's QI rates were lower than expected, which could be because the PIHP had not applied any of the allowed exclusions to its data. Once the exclusions are applied, the PIHP's QI rates will likely meet or exceed the 95 percent standard. **Mid-State Health Network** implemented a quality check process, which allows the PIHP to track each CMHSP's QI data process. If any CMHSP falls below the acceptable 95 percent, any issues can be researched, addressed, and solved prior to submission to the State.

PIHP Oversight of Affiliate Community Mental Health Centers

HSAG found that **Mid-State Health Network** has sufficient oversight of its CMHSPs. The PIHP monitors each CMHSP's performance via various reports. A corrective action plan for process improvement is implemented when any of the CMHSPs fall below the standard. The PIHP also has a plan to implement a report card to monitor data completeness and timeliness. Consistent communication and regular committee meetings facilitate attention to any issues and provide opportunities to develop solutions collaboratively. This teamwork helps to ensure that affiliates are held accountable for their missing or incomplete data. The PIHP plans to initiate a regular desk audit check before the end of the 2014 calendar year to determine if the CMHSPs are in compliance or whether they need to be on an improvement plan.

PIHP Oversight of Coordinating Agencies

HSAG found that **Mid-State Health Network** has sufficient oversight of its affiliate coordinating agencies (CAs). Each CA enters data directly into the PIHP's data warehouse. This process ensures that all data submissions are timely and complete. Consistent communication and regular committee

meetings facilitate attention to any issues and provide opportunities to develop solutions collaboratively. The PIHP plans to initiate a regular desk audit check before the end of the 2014 calendar year to determine if the CMHSPs are in compliance or whether they need to be on an improvement plan.

PIHP Actions Related to Previous Recommendations

No previous recommendations were available since **Mid-State Health Network** was formed as a new PIHP as of January 1, 2014.

Performance Indicator Specific Findings and Recommendations

Based on all validation activities, HSAG determined results for each performance indicator. The CMS Performance Measure Validation Protocol identifies three possible validation finding designations for performance indicators, which are defined in Table 6. For more detailed information, please see Appendix B.

Table 6—Designation Categories for Performance Indicators	
Report (R)	Indicator was compliant with the State's specifications and the rate can be reported.
Not Reported (NR)	This designation is assigned to measures for which: (1) the PIHP rate was materially biased or (2) the PIHP was not required to report.
No Benefit (NB)	Indicator was not reported because the PIHP did not offer the benefit required by the indicator.

According to the protocol, the validation designation for each indicator is determined by the magnitude of the errors detected for the audit elements, not by the number of audit elements determined to be not compliant based on the review findings. Consequently, an error for a single audit element may result in a designation of NR because the impact of the error biased the reported performance indicator by more than 5 percentage points. Conversely, it is also possible that several audit element errors may have little impact on the reported rate, and the indicator could be given a designation of R. Audit elements and their scoring designations (i.e., *Met*, *Not Met*, and *Not Applicable [N/A]*) can be found in Appendix A—Data Integration and Control Findings and Appendix B—Denominator and Numerator Elements.

Table 7 displays the indicator-specific review findings and designations for **Mid-State Health Network**.

Table 7—Indicator-Specific Review Findings and Designations for Mid-State Health Network			
Performance Indicator		**Key Review Findings**	**Indicator Designation**
#1	The percentage of Medicaid beneficiaries receiving a pre-admission screening for psychiatric inpatient care for whom the disposition was completed within three hours.	The calculation process was in accordance with MDCH Codebook specifications.	R
#2	The percentage of new Medicaid beneficiaries during the quarter receiving a face-to-face assessment with a professional within 14 calendar days of a non-emergency request for service.	The calculation process was in accordance with MDCH Codebook specifications.	R
#3	The percentage of new Medicaid beneficiaries during the quarter starting any needed on-going service within 14 days of a non-emergent face-to-face assessment with a professional.	The calculation process was in accordance with MDCH Codebook specifications.	R
#4a	The percentage of discharges from a psychiatric inpatient unit during the quarter that were seen for follow-up care within 7 days.	The calculation process was in accordance with MDCH Codebook specifications.	R
#4b	The percentage of discharges from a substance abuse detox unit during the quarter that were seen for follow-up care within 7 days.	The calculation process was in accordance with MDCH Codebook specifications.	R
#5	The percent of Medicaid recipients having received PIHP managed services.	This indicator will be calculated by MDCH in compliance with MDCH Codebook specifications.	R
#6	The percent of Habilitation Supports Waiver (HSW) enrollees during the quarter with encounters in data warehouse who are receiving at least one HSW service per month that is not supports coordination.	This indicator will be calculated by MDCH in compliance with MDCH Codebook specifications.	R
#8	The percent of (a) adults with mental illness, the percent of (b) adults with developmental disabilities, and the percent of (c) adults dually diagnosed with mental illness/developmental disabilities served by the CMHSPs and PIHPs who are employed competitively.	This indicator will be calculated by MDCH in compliance with MDCH Codebook specifications.	R

Table 7—Indicator-Specific Review Findings and Designations for Mid-State Health Network			
Performance Indicator		Key Review Findings	Indicator Designation
#9	The percent of (a) adults with mental illness, the percent of (b) adults with developmental disabilities, and the percent of (c) adults dually diagnosed with mental illness/developmental disabilities served by the CMHSPs and PIHPs who earned minimum wage or more from any employment activities.	This indicator will be calculated by MDCH in compliance with MDCH Codebook specifications.	R
#10	The percentage of readmissions of MI and DD children and adults during the quarter to an inpatient psychiatric unit within 30 days of discharge.	The calculation process was in accordance with MDCH Codebook specifications.	R
#13	The percent of adults with developmental disabilities served, who live in a private residence alone, with spouse, or non-relative(s).	This indicator will be calculated by MDCH in compliance with MDCH Codebook specifications.	R
#14	The percent of adults with serious mental illness served, who live in a private residence alone, with spouse, or non-relative(s).	This indicator will be calculated by MDCH in compliance with MDCH Codebook specifications.	R

Appendix A. Data Integration and Control Findings

for **Mid-State Health Network**

Documentation Worksheet

PIHP Name:	Mid-State Health Network
On-Site Visit Date:	07/09/2014
Reviewers:	David Mabb, Mariyah Badani, Kalpna Shah, Timea Jonas

Data Integration and Control Element	Met	Not Met	N/A	Comments
Accuracy of data transfers to assigned performance indicator data repository				
The PIHP accurately and completely processes transfer data from the transaction files (e.g., membership, provider, encounter/claims) into the performance indicator data repository used to keep the data until the calculations of the performance indicators have been completed and validated.	☒	☐	☐	
Samples of data from performance indicator data repository are complete and accurate.	☐	☐	☒	Since this first year was an assessment for this PIHP, primary source verification was not performed.
Accuracy of file consolidations, extracts, and derivations				
The PIHP's processes to consolidate diversified files and to extract required information from the performance indicator data repository are appropriate.	☒	☐	☐	
Actual results of file consolidations or extracts are consistent with those that should have resulted according to documented algorithms or specifications.	☒	☐	☐	
Procedures for coordinating the activities of multiple subcontractors ensure the accurate, timely, and complete integration of data into the performance indicator database.	☒	☐	☐	
Computer program reports or documentation reflect vendor coordination activities, and no data necessary for performance indicator reporting are lost or inappropriately modified during transfer.	☒	☐	☐	
If the PIHP uses a performance indicator data repository, its structure and format facilitates any required programming necessary to calculate and report required performance indicators.				
The performance indicator data repository's design, program flow charts, and source code enables analyses and reports.	☒	☐	☐	
Proper linkage mechanisms are employed to join data from all necessary sources (e.g., identifying a member with a given disease/condition).	☒	☐	☐	

Data Integration and Control Element	Met	Not Met	N/A	Comments
Assurance of effective management of report production and of the reporting software.				
Documentation governing the production process, including PIHP production activity logs and the PIHP staff review of report runs, is adequate.	☒	☐	☐	
Prescribed data cutoff dates are followed.	☒	☐	☐	
The PIHP retains copies of files or databases used for performance indicator reporting in case results need to be reproduced.	☒	☐	☐	
The reporting software program is properly documented with respect to every aspect of the performance indicator data repository, including building, maintaining, managing, testing, and report production.	☒	☐	☐	
The PIHP's processes and documentation comply with the PIHP standards associated with reporting program specifications, code review, and testing.	☒	☐	☐	

Appendix B. Denominator and Numerator Validation Findings

for **Mid-State Health Network**

Reviewer Worksheet

PIHP Name:	Mid-State Health Network
On-Site Visit Date:	07/09/2014
Reviewers:	David Mabb, Mariyah Badani, Kalpna Shah, Timea Jonas

Denominator Validation Findings for Mid-State Health Network				
Audit Element	**Met**	**Not Met**	**N/A**	**Comments**
For each of the performance indicators, all members of the relevant populations identified in the specifications are included in the population from which the denominator is produced.	☒	☐	☐	
Adequate programming logic or source code exists to appropriately identify all relevant members of the specified denominator population for each of the performance indicators.	☒	☐	☐	
The PIHP correctly calculates member months and member years if applicable to the performance indicator.	☐	☐	☒	Member month and member year calculations were not applicable to the indicators under the scope of the audit.
The PIHP properly evaluates the completeness and accuracy of any codes used to identify medical events, such as diagnoses, procedures, or prescriptions, and these codes are appropriately identified and applied as specified in each performance indicator.	☒	☐	☐	
If any time parameters are required by the specifications for the performance indicator, they are followed (e.g., cutoff dates for data collection, counting 30 calendar days after discharge from a hospital, etc.).	☒	☐	☐	
Exclusion criteria included in the performance indicator specifications are followed.	☒	☐	☐	
Systems or methods used by the PIHP to estimate populations when they cannot be accurately or completely counted (e.g., newborns) are valid.	☐	☐	☒	Population estimates were not applicable to the indicators under the scope of the audit.

Numerator Validation Findings for Mid-State Health Network				
Audit Element	**Met**	**Not Met**	**N/A**	**Comments**
The PIHP uses the appropriate data, including linked data from separate data sets, to identify the entire at-risk population.	☒	☐	☐	
Qualifying medical events (such as diagnoses, procedures, prescriptions, etc.) are properly identified and confirmed for inclusion in terms of time and services.	☒	☐	☐	
The PIHP avoids or eliminates all double-counted members or numerator events.	☒	☐	☐	
Any nonstandard codes used in determining the numerator are mapped to a standard coding scheme in a manner that is consistent, complete, and reproducible, as evidenced by a review of the programming logic or a demonstration of the program.	☐	☐	☒	Nonstandard codes were not used or reported by the PIHP.
If any time parameters are required by the specifications for the performance indicator, they are followed (i.e., the indicator event occurred during the time period specified or defined in the specifications).	☒	☐	☐	