Behavioral Health and Developmental Disabilities Administration
Prepaid Inpatient Health Plans

2020–2021 PIP Validation Report

Patient With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test

for

Region 5—Mid-State Health Network

October 2021

For Validation Year 4

HSAG HEALTH SERVICES ADVISORY GROUP

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Acknowledgements and Copyrights

1. Background

The Code of Federal Regulations (CFR), specifically 42 CFR §438.350, requires states that contract with managed care organizations (MCOs) to conduct an external quality review (EQR) of each contracting MCO. An EQR includes analysis and evaluation by an external quality review organization (EQRO) of aggregated information on healthcare quality, timeliness, and access. Health Services Advisory Group, Inc. (HSAG) serves as the EQRO for the State of Michigan, Department of Health and Human Services, (MDHHS)—responsible for the overall administration and monitoring of the Michigan Medicaid managed care program. MDHHS requires that the Prepaid Inpatient Health Plan (PIHP) conduct and submit performance improvement projects (PIPs) annually to meet the requirements of the Balanced Budget Act of 1997 (BBA), Public Law 105-33. According to the BBA, the quality of health care delivered to Medicaid members in PIHPs must be tracked, analyzed, and reported annually. PIPs provide a structured method of assessing and improving the processes, and thereby the outcomes, of care for the population that a PIHP serves.

For State Fiscal Year (SFY) 2020–2021, MDHHS required PIHPs to conduct PIPs in accordance with 42 CFR §438.330(b)(1) and §438.330(d)(2)(i–iv). In accordance with §438.330(d)(2)(i–iv), each PIP must include:

- Measuring performance using objective quality indicators.
- Implementing system interventions to achieve quality improvement (QI).
- Evaluating effectiveness of the interventions.
- Planning and initiating activities for increasing and sustaining improvement.

As one of the mandatory EQR activities required by 42 CFR §438.358(b)(1)(i), HSAG, as the State's EQRO, validated the PIPs through an independent review process. Since these PIPs were initiated in SFY 2018, in its PIP evaluation and validation, HSAG used the Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS) publication, *EQR Protocol 3: Validating Performance Improvement Projects (PIPs): A Mandatory Protocol for External Quality Review (EQR)*, Version 2.0, September 2012.[1-1] When the PIHPs initiate new PIPs, HSAG will use and follow CMS' publication, *Protocol 1. Validation of Performance Improvement Projects (PIPs): A Mandatory EQR-Related Activity*, October 2019.[1-2]

[1-1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *EQR Protocol 3: Validating Performance Improvement Projects (PIPs): A Mandatory Protocol for External Quality Review (EQR)*, Version 2.0, September 2012. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/eqr-protocol-3.pdf. Accessed on: Aug 23, 2021.

[1-2] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Protocol 1. Validation of Performance Improvement Projects (PIPs): A Mandatory EQR-Related Activity*, October 2019. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2019-eqr-protocols.pdf. Accessed on: Aug 23, 2021.

1. HSAG evaluates the technical structure of the PIP to ensure that **Mid-State Health Network** designs, conducts, and reports the PIP in a methodologically sound manner, meeting all State and federal requirements. HSAG's review determines whether the PIP design (e.g., study question, population, indicator(s), sampling techniques, and data collection methodology) is based on sound methodological principles and could reliably measure outcomes. Successful execution of this component ensures that reported PIP results are accurate and capable of measuring sustained improvement.
2. HSAG evaluates the implementation of the PIP. Once designed, a PIP's effectiveness in improving outcomes depends on the systematic data collection process, analysis of data, and the identification of barriers and subsequent development of relevant interventions. Through this component, HSAG evaluates how well **Mid-State Health Network** improves its rates through implementation of effective processes (i.e., barrier analyses, intervention design, and evaluation of results).

The goal of HSAG's PIP validation is to ensure that MDHHS and key stakeholders can have confidence that any reported improvement is related to and can be logically linked to the quality improvement strategies and activities conducted by the PIHP during the PIP.

Rationale

The purpose of a PIP is to achieve, through ongoing measurements and interventions, significant improvement sustained over time in clinical and non-clinical areas.

For this year's 2020–2021 validation, **Mid-State Health Network** continued its state-mandated PIP topic: ***Patient With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test***. The study topic selected by **Mid-State Health Network** addressed CMS' requirements related to quality outcomes—specifically, the quality, timeliness, and accessibility of care and services.

Summary

The goal of this PIP is to increase annual hemoglobin A1c and low-density lipoprotein cholesterol testing among Medicaid members with diabetes and schizophrenia. Monitoring these test results can assist in controlling diabetes; prevent serious health complications such as blindness, kidney disease, and amputations; and lead to improvement in health and functional outcomes of members. This PIP topic represents a key area of focus for improvement by **Mid-State Health Network.**

Table 1-1 outlines the study indicator for the PIP.

Table 1-1—Study Indicator

PIP Topic	Study Indicator
Patient With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test	The percentage of members with schizophrenia and diabetes who had an HbA1c and LDL-C test during the measurement period.

Validation Overview

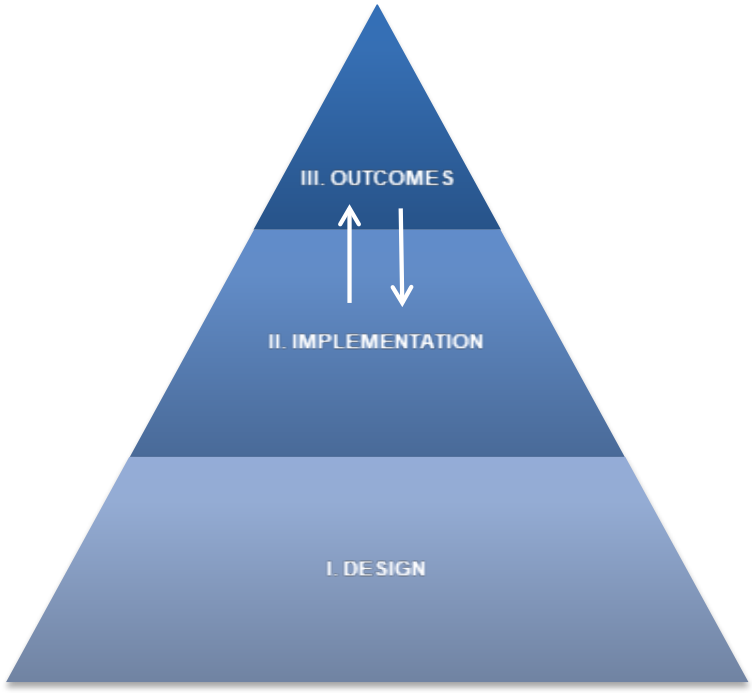
HSAG obtains the information and data needed to conduct the PIP validation from **Mid-State Health Network**'s PIP Summary Form. This form provides detailed information about **Mid-State Health Network**'s PIP related to the steps completed and evaluated by HSAG for the 2020–2021 validation cycle.

Each required step is evaluated on one or more elements that form a valid PIP. The HSAG PIP Review Team scores each evaluation element within a given step as *Met*, *Partially Met*, *Not Met*, *Not Applicable*, or *Not Assessed*. HSAG designates evaluation elements pivotal to the PIP process as critical elements. For a PIP to produce valid and reliable results, all critical elements must be *Met*. Given the importance of critical elements to the scoring methodology, any critical element that receives a *Not Met* score results in an overall validation rating for the PIP of *Not Met*. **Mid-State Health Network** would be given a *Partially Met* score if 60 percent to 79 percent of all evaluation elements were *Met* or one or more critical elements were *Partially Met*. HSAG provides a General Comment with a *Met* validation score when enhanced documentation would have demonstrated a stronger understanding and application of the PIP activities and evaluation elements.

In addition to the validation status (e.g., *Met*) HSAG gives the PIP an overall percentage score for all evaluation elements (including critical elements). HSAG calculates the overall percentage score by dividing the total number of elements scored as *Met* by the total number of elements scored as *Met*, *Partially Met*, and *Not Met*. HSAG also calculates a critical element percentage score by dividing the total number of critical elements scored as *Met* by the sum of the critical elements scored as *Met*, *Partially Met*, and *Not Met*.

Figure 1-1 illustrates the three stages of the PIP process—i.e., Design, Implementation, and Outcomes. Each sequential stage provides the foundation for the next stage. The Design stage establishes the methodological framework for the PIP. The steps in this section include development of the study topic, question, population, indicators, sampling techniques, and data collection. To implement successful improvement strategies, a methodologically sound study design is necessary.

Figure 1-1—Stages



Once **Mid-State Health Network** establishes its study design, the PIP process progresses into the Implementation stage. This stage includes data analysis and interventions. During this stage, **Mid-State Health Network** evaluates and analyzes its data, identifies barriers to performance, and develops interventions targeted to improve outcomes. The implementation of effective improvement strategies is necessary to improve outcomes. The Outcomes stage is the final stage, which involves the evaluation of real and sustained improvement based on reported results and statistical testing. Sustained improvement is achieved when outcomes exhibit statistically significant improvement over the baseline and the improvement is sustained with a subsequent measurement period. This stage is the culmination of the previous two stages. If the outcomes do not improve, **Mid-State Health Network** investigates the data collected to ensure that **Mid-State Health Network** has correctly identified the barriers and implemented appropriate and effective interventions. If it has not, **Mid-State Health Network** should revise its interventions and collect additional data to remeasure and evaluate outcomes for improvement. This process becomes cyclical until sustained statistical improvement is achieved.

Validation Findings

HSAG's validation evaluated the technical methods of the PIP (i.e., the study design), the implementation of quality improvement strategies and the PIP outcomes through annual remeasurements. Based on its review, HSAG determined the overall methodological validity of the PIP and assessed for improvement in the study indicator outcomes. Table 2-1 summarizes the PIP validated during the review period with an overall validation status of *Met*, *Partially Met*, or *Not Met*. In addition, Table 2-1 displays the percentage score of evaluation elements that received a *Met* score, as well as the percentage score of critical elements that received a *Met* score. Critical elements are those within the validation tool that HSAG has identified as essential for producing a valid and reliable PIP. All critical elements must receive a *Met* score for a PIP to receive an overall *Met* validation status. A resubmission is a PIHP's updates to the previously submitted PIP with revised/additional documentation.

Table 2-1 illustrates the validation scores for both the initial submission and resubmission.

Table 2-1—2020–2021 PIP Validation Results for Mid-State Health Network

Name of Project	Type of Annual Review[1]	Percentage Score of Evaluation Elements *Met*[2]	Percentage Score of Critical Elements *Met*[3]	Overall Validation Status[4]
Patient With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test	Submission	95%	100%	*Met*
	Resubmission	100%	100%	*Met*

[1] **Type of Review**—Designates the PIP review as an annual submission, or resubmission. A resubmission means the PIHP was required to resubmit the PIP with updated documentation because it did not meet HSAG's validation criteria to receive an overall *Met* validation status.

[2] **Percentage Score of Evaluation Elements *Met***—The percentage score is calculated by dividing the total elements *Met* (critical and non-critical) by the sum of the total elements of all categories (*Met*, *Partially Met*, and *Not Met*).

[3] **Percentage Score of Critical Elements *Met***—The percentage score of critical elements *Met* is calculated by dividing the total critical elements *Met* by the sum of the critical elements *Met*, *Partially Met*, and *Not Met*.

[4] **Overall Validation Status**—Populated from the PIP Validation Tool and based on the percentage scores.

Table 2-2 displays the validation results for **Mid-State Health Network**'s PIP evaluated during 2019–2020. This table illustrates the PIHP's overall application of the PIP process and success in implementing the PIP. Each step is composed of individual evaluation elements scored as *Met*, *Partially Met*, or *Not Met*. Elements receiving a *Met* score have satisfied the necessary technical requirements for a specific element. The validation results presented in Table 2-2 show the percentage of applicable evaluation elements that received each score by step. Additionally, HSAG calculated a score for each stage and an overall score across all steps.

Table 2-2—Performance Improvement Project Validation Results for Mid-State Health Network

Stage	Step		Percentage of Applicable Elements		
			Met	*Partially Met*	*Not Met*
Design	1.	Appropriate Study Topic	100% (2/2)	0% (0/2)	0% (0/2)
	2.	Clearly Defined, Answerable Study Question(s)	100% (1/1)	0% (0/1)	0% (0/1)
	3.	Correctly Identified Study Population	100% (1/1)	0% (0/1)	0% (0/1)
	4.	Clearly Defined Study Indicator(s)	100% (1/1)	0% (0/1)	0% (0/1)
	5.	Valid Sampling Techniques (if sampling was used)	*Not Applicable*		
	6.	Accurate/Complete Data Collection	100% (3/3)	0% (0/3)	0% (0/3)
Design Total			**100% (8/8)**	**0% (0/8)**	**0% (0/8)**
Implementation	7.	Sufficient Data Analysis and Interpretation	100% (3/3)	0% (0/3)	0% (0/3)
	8.	Appropriate Improvement Strategies	100% (6/6)	0% (0/6)	0% (0/6)
Implementation Total			**100% (9/9)**	**0% (0/9)**	**0% (0/9)**
Outcomes	9.	Real Improvement Achieved	100% (3/3)	0% (0/3)	0% (0/3)
	10.	Sustained Improvement Achieved	*Not Assessed*		
Outcomes Total			**100% (3/3)**	**0% (0/3)**	**30% (0/3)**
Percentage Score of Applicable Evaluation Elements *Met*			**100% (20/20)**		
Percentage of Score of Applicable Critical Evaluation Elements *Met*			**100% (10/10)**		
Validation Status			***Met***		

Mid-State Health Network submitted the Design, Implementation, and Outcomes stages of the PIP for this year's validation. Overall, 100 percent of all applicable evaluation elements received a score of *Met*. The following subsections highlight HSAG's findings associated with each validated PIP stage.

Design

Mid-State Health Network designed a scientifically sound project supported by the use of key research principles, meeting 100 percent of the requirements in the Design stage. The technical design of the PIP was sufficient to measure and monitor PIP outcomes.

Implementation

Mid-State Health Network met 100 percent of the requirements for the data analysis and implementation of improvement strategies. The PIHP conducted accurate statistical testing comparing the Remeasurement 1 results to the baseline results and provided a narrative interpretation of that comparison. Appropriate quality improvement tools were utilized to conduct its causal/barrier analysis and to prioritize the identified barriers. Intervention evaluation results were provided for interventions as appropriate.

Outcomes

Mid-State Health Network was assessed for improvement of the study indicator outcomes. Remeasurement 2 achieved the overall goal of statistically significant improvement over the baseline and the plan-selected goal.

Analysis of Results

Table 2-3 displays baseline, Remeasurement 1, and Remeasurement 2 data for **Mid-State Health Network**'s ***Patient With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test*** PIP. The goal is to increase annual hemoglobin A1c and low-density lipoprotein cholesterol testing among Medicaid members with diabetes and schizophrenia.

Table 2-3—Performance Improvement Project Outcomes for Mid-State Health Network

Study Indicator Results				
Study Indicator	**Baseline (1/1/2018–12/1/2018)**	**Remeasurement 1 (1/1/2019–12/31/2019)**	**Remeasurement 2 (1/1/2020–12/31/2020)**	**Sustained Improvement**
Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period	33.6%	36.1% ⇔	49.2% ↑*	

⇔ Designates an improvement or a decline from the baseline measurement period that was not statistically significant (p value ≥ 0.05).
↑* The remeasurement rate demonstrated statistically significant improvement ($p < 0.05$) over the baseline rate.

For the first measurement period, **Mid-State Health Network** reported that 36.1 percent of patients with schizophrenia and diabetes had an HbA1c and LDC-C test. The Remeasurement 1 plan-selected goal was set at 36 percent. The overall goal of the PIP is to achieve statistically significant improvement over the baseline rate of 33.6 percent. The study indicator achieved the plan-selected goal and, although it did not achieve statistically significant improvement, **Mid-State Health Network** demonstrated an improvement of 2.5 percentage points over the baseline rate for the first remeasurement period.

For the second remeasurement period, **Mid-State Health Network** reported that 49.2 percent of patients with schizophrenia and diabetes had an HbA1c and LDL-C test. The Remeasurement 2 plan-selected goal was set at 38.6 percent. The overall goal of the PIP is to achieve statistically significant improvement over the baseline rate of 33.6 percent. The study indicator achieved both statistically significant improvement and the plan-selected goal.

Mid-State Health Network noted that the coronavirus disease 2019 (COVID-19) pandemic, which occurred during the second remeasurement period, impacted the rate due to stay-at-home orders as well as limited transportation and access to laboratories and physician offices.

Barriers/Interventions

The identification and prioritization of barriers through causal/barrier analysis and the selection of appropriate active interventions to address these barriers are necessary steps to improve outcomes. The PIHP's choice of interventions, combination of intervention types, and sequence of implementing the interventions are essential to the PIHP's overall success in achieving the desired outcomes for the PIP.

Mid-State Health Network's causal/barrier analysis involved brainstorming and the completion of the fishbone diagram to identify the barriers by the quality improvement council and regional medical directors' group. Each Community Mental Health Service Program (CMHSP) reviewed its baseline data and provided feedback regarding barriers to the PIHP. The quality improvement council and regional medical directors group prioritized the identified barriers based on the effort of, and relevance to, each CMHSP and potential impact of the outcome.

From these processes, **Mid-State Health Network** determined the following top barriers:

- Lack of coordination and communication occurring between the primary care physicians (PCPs) and the CMHSPs.
- Lack of access to labs.
- Information regarding completed labs is not available.
- Inaccurate and untimely data.

To address these barriers, **Mid-State Health Network** initiated the following interventions:

- The PIHP developed and provided a brief document to the PCPs and CMHSP clinicians that explains when it is appropriate for protected health information (PHI) to be shared for the purposes

of coordination of care, treatment, and payment. The PIHP medical director provided education related to PHI to be shared for the purposes of coordination of care, treatment, and payment to the joint group of medical directors and PCPs.

- The PIHP implemented a process to improve transportation availability. This included the development of an information sheet to provide to members at the time of their appointments with instructions for accessing the transportation available in each CMHSP's geographical location.
- The PIHP implemented a process for lab services to be obtained on-site at each CMHSP location. This included a mobile lab, trained medical staff members, and an on-site lab draw station.
- The CMHSP utilized care alerts to determine who does not have a claim for a completed lab. A record review is completed to identify if a lab was ordered. If the results are in the record and a claim was submitted to Medicare, the CMHSP can enter "addressed" into the Integrated Care Data Platform (ICDP).
- The PIHP developed and implemented a process for quarterly data validation to ensure data received from the Care Connect 360 extract and processed by Zenith Technologies in the ICDP is consistent with the HEDIS specifications and is completed within the expected time frames.

3. Conclusions and Recommendations

Conclusions

The ***Patient With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test*** PIP received a *Met* validation score for 100 percent of critical evaluation elements, 100 percent for the overall evaluation elements across all steps validated, and a *Met* validation status. **Mid-State Health Network** developed a methodologically sound improvement project. The PIHP collected and reported accurate study indicator results using a systematic data collection process and conducted appropriate statistical testing for comparison between measurement periods. The causal/barrier analysis process included the use of appropriate quality improvement tools and a collaboration with the regional medical directors' group in the identification and prioritization of barriers. The PIHP achieved statistically significant improvement over the baseline performance for the study indicator.

Recommendations

As the PIP progresses, HSAG recommends the following:

- **Mid-State Health Network** should revisit its causal/barrier analysis at least annually to ensure that the barriers identified continue to be barriers, and to see if any new barriers exist that require the development of interventions.
- **Mid-State Health Network** should continue to evaluate the effectiveness of each intervention. Decisions to continue, revise, or discontinue an intervention must be data driven.
- **Mid-State Health Network** should seek technical assistance from HSAG throughout the PIP process to address any questions or concerns.
- **Mid-State Health Network** should reference the PIP Completion Instructions annually to ensure that all requirements for each completed step have been addressed.

Appendix A. PIP Validation Tool

The following contains the final PIP validation tool for **Mid-State Health Network**.

Demographic Information			
Plan Name:	Region 5 - Mid-State Health Network		
Project Leader Name:	Sandy Gettel	Title:	Quality Manager
Telephone Number:	(517) 220-2422	E-mail Address:	sandy.gettel@midstatehealthnetwork.org
Name of Project:	***Patients With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test***		
Submission Date:	8/13/2021		

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
1.	**Select the Study Topic(s): The study topic should be selected based on data that identify an opportunity for improvement. The goal of the project should be to improve processes and outcomes of healthcare. The topic may also be specified by the State. The study topic:**		
C*	1. Was selected following collection and analysis of data. N/A is not applicable to this element for scoring.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The study topic was selected following the collection and analysis of the plan-specific data.
	2. Has the potential to affect member health, functional status, or satisfaction. The scoring for this element will be Met or Not Met.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIP has the potential to affect member health, functional status, or satisfaction.

Results for Step 1

Total Evaluation Elements

Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
2	2	0	0	0

Critical Elements

Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements	Scoring	Comments
Performance Improvement Project Validation		
2. **Define the Study Question(s): Stating the study question(s) helps maintain the focus of the QIP and sets the framework for data collection, analysis, and interpretation. The study question:**		
C* 1. Was stated in simple terms and in the recommended X/Y format. N/A is not applicable to this element for scorning.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The study question was stated in simple terms using the recommended X/Y format.

Results for Step 2

Total Evaluation Elements

Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

Critical Elements

Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements	Scoring	Comments
Performance Improvement Project Validation		
3. **Define the Study Population: The study population should be clearly defined to represent the population to which the study question and indicators apply, without excluding members with special healthcare needs. The study population:**		
C* 1. Was accurately and completely defined and captured all members to whom the study question(s) applied. N/A is not applicable to this element for scoring.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP accurately and completely defined the study population. **General Comment**: The PIHP should use the most recent version of the HEDIS technical specifications for each remeasurement period. **Re-review August 2021**: The PIHP clarified that the most recent version of the HEDIS technical specifications were used. The general comment has been addressed.

Results for Step 3

Total Evaluation Elements				
Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

Critical Elements				
Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
4.	**Select the Study Indicator(s): A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. The study indicator(s):**		
C*	1. Was well-defined, objective, and measured changes in health or functional status, member satisfaction, or valid process alternatives.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The study indicators were based on HEDIS technical specifications. **General Comment**: The PIHP should use the most recent version of the HEDIS technical specifications for each remeasurement period. **Re-review August 2021**: The PIHP clarified that the most recent version of the HEDIS technical specifications were used. The general comment has been addressed.
	2. Included the basis on which the indicator(s) was developed, if internally developed.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	The study indicator was not internally developed.

Results for Step 4

Total Evaluation Elements				
Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
2	1	0	0	1

Critical Elements				
Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
5.	**Use Sound Sampling Techniques: (If sampling is not used, each evaluation element will be scored Not Applicable [NA]). If sampling is used to select members in the population, proper sampling techniques are necessary to provide valid and reliable information on the quality of care provided. Sampling methods:**		
	1. Included the measurement period for the sampling methods used (e.g., baseline, Remeasurement 1).	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.
	2. Included the title of applicable study indicator(s).	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.
	3. Included the population size.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.
C*	4. Included the sample size.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.
	5. Included the margin of error and confidence level.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.
	6. Described in detail the method used to select the sample.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.
C*	7. Allowed for the generalization of results to the study population.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	Sampling will not be used.

Results for Step 5

Total Evaluation Elements

Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
7	0	0	0	7

Critical Elements

Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
2	0	0	0	2

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
6.	**Reliably Collect Data: The data collection process must ensure that the data collected on the study indicator(s) was valid and reliable. Validity is an indication of the accuracy of the information obtained. Reliability is an indication of the repeatability or reproducibility of a measurement. Data collection procedures include:**		
	1. Clearly defined sources of data and data elements collected. N/A is not applicable to this element for scoring.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The documentation included the data sources and data elements for collection.
C*	2. A clearly defined and systematic process for collecting data that included how baseline and remeasurement data were collected. N/A is not applicable to this element for scoring.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP specified a systematic method for collecting baseline and remeasurement data.
C*	3. A manual data collection tool that ensured consistent and accurate collection of data according to indicator specifications.	☐ Met ☐ Partially Met ☐ Not Met ☑ NA	The PIHP used administrative data collection only.
	4. The estimated degree of administrative data completeness percentage. Met = 80-100 percent Partially Met = 50-79 percent Not Met = <50 percent or not provided	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The estimated degree of administrative data completeness was between 80 percent and 100 percent, and the PIHP explained how it determined the administrative data completeness.

Results for Step 6

Total Evaluation Elements				
Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
4	3	0	0	1

Critical Elements				
Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
2	1	0	0	1

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
7.	**Analyze Data and Interpret Study Results: Clearly present the results for each study indicator(s). Describe the data analysis performed and the results of the statistical analysis, if applicable, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined. The data analysis and interpretation of the study indicator outcomes:**		
C*	1. Included accurate, clear, consistent, and easily understood information in the data table.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP included accurate, clear, consistent, and easily understood information in the data table.
	2. Included a narrative interpretation that addresses all required components of data analysis and statistical testing.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	It appears that the PIHP conducted its statistical testing comparing Remeasurement 2 (R2) to Remeasurement 1 (R1). Each remeasurement period should be compared to the baseline. The PIHP must recalculate the statistical testing and accurately report the outcomes using R2 and the baseline. **Re-review August 2021**: The PIHP conducted statistical testing comparing Remeasurement 2 to the baseline. The validation score for this evaluation element has been changed to *Met*.
	3. Identified factors that threatened the validity of the data reported and ability to compare the initial measurement with the remeasurement.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP identified and discussed factors that threatened the internal or external validity of the findings.

Results for Step 7

Total Evaluation Elements				
Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
3	3	0	0	0

Critical Elements				
Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
8.	**Improvement Strategies(interventions for improvement as a result of analysis): Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis. The improvement strategies are developed from an ongoing quality improvement process that included:**		
C*	1. A causal/barrier analysis with a clearly documented team, process/steps, and quality improvement tools.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP documented its causal/barrier analysis process, described its quality improvement (QI) team, processes/steps, and tools used.
	2. Barriers that were identified and prioritized based on results of data analysis and/or other quality improvement processes.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	Identified barriers were prioritized based on data analysis and/or appropriate quality improvement processes.
C*	3. Interventions that were logically linked to identified barriers and will directly impact study indicator outcomes.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The interventions were logically linked to identified barriers and have the potential to impact indicator outcomes.
	4. Interventions that were implemented in a timely manner to allow for impact of study indicator outcomes.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The interventions were implemented in a timely manner to allow for impact of the indicator outcomes.
C*	5. Evaluation of individual interventions for effectiveness.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP described its process for evaluating the effectiveness of each intervention and included the evaluation results.
	6. Interventions that were continued, revised, or discontinued based on evaluation results.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	Interventions were continued, revised, or discontinued based on evaluation for effectiveness of outcomes.

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements	Scoring	Comments
Performance Improvement Project Validation		

Results for Step 8

Total Evaluation Elements					Critical Elements				
Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*	Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
6	6	0	0	0	3	3	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
9.	**Assess for Real Improvement: Real improvement or meaningful change in performance is evaluated based on study indicator(s) results.**		
	1. The remeasurement methodology was the same as the baseline methodology.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	Repeated measurements used the same methodology as was used for the baseline measurement.
	2. The documented improvement meets the State- or plan-specific goal.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The study indicator achieved the plan-specific goal.
C*	3. There was statistically significant improvement over the baseline across all study indicators.	☑ Met ☐ Partially Met ☐ Not Met ☐ NA	The PIHP achieved statistically significant improvement over the baseline for the study indicator.

Results for Step 9

Total Evaluation Elements

Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
3	3	0	0	0

Critical Elements

Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	1	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Evaluation Elements		Scoring	Comments
Performance Improvement Project Validation			
10.	**Assess for Sustained Improvement: Sustained improvement is demonstrated through repeated measurements over comparable time periods.**		
C*	1. Repeated measurements over comparable time periods demonstrated sustained improvement over the baseline.	☐ Met ☐ Partially Met ☐ Not Met ☐ NA	Not Assessed. Sustained improvement cannot be assessed until statistically significant improvement over the baseline has been achieved across all study indicators, and a subsequent measurement period has been reported.

Results for Step 10

Total Evaluation Elements				
Total Evaluation Elements**	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	0	0	0	0

Critical Elements				
Critical Elements***	*Met*	*Partially Met*	*Not Met*	*Not Applicable*
1	0	0	0	0

* "C" in this column denotes a critical evaluation element.
** This is the total number of all evaluation elements for this review step.
*** This is the total number of critical evaluation elements for this review step.

Table A-1—2020-2021 PIP Validation Tool Scores:
Patients With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test
for Region 5 - Mid-State Health Network

	Review Step	Total Possible Evaluation Elements (Including Critical Elements)	Total Met	Total Partially Met	Total Not Met	Total NA	Total Possible Critical Elements	Total Critical Elements Met	Total Critical Elements Partially Met	Total Critical Elements Not Met	Total Critical Elements NA
1.	Select the Study Topic(s)	2	2	0	0	0	1	1	0	0	0
2.	Define the Study Question(s)	1	1	0	0	0	1	1	0	0	0
3.	Define the Study Population	1	1	0	0	0	1	1	0	0	0
4.	Select the Study Indicator(s)	2	1	0	0	1	1	1	0	0	0
5.	Use Sound Sampling Techniques	7	0	0	0	7	2	0	0	0	2
6.	Reliably Collect Data	4	3	0	0	1	2	1	0	0	1
7.	Analyze Data and Interpret Study Results	3	3	0	0	0	1	1	0	0	0
8.	Improvement Strategies(interventions for improvement as a result of analysis)	6	6	0	0	0	3	3	0	0	0
9.	Assess for Real Improvement	3	3	0	0	0	1	1	0	0	0
10.	Assess for Sustained Improvement	1		Not Assessed			1	Not Assessed			
Totals for All Steps		**30**	**20**	**0**	**0**	**9**	**14**	**10**	**0**	**0**	**3**

Table A-2—2020-2021 PIP Validation Tool Overall Score:
Patients With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test
for Region 5 - Mid-State Health Network

Percentage Score of Evaluation Elements Met*	**100%**
Percentage Score of Critical Elements Met**	**100%**
Validation Status***	***Met***

* The percentage score for all evaluation elements Met is calculated by dividing the total Met by the sum of all evaluation elements Met, Partially Met, and Not The Not Assessed and Not Applicable scores have been removed from the scoring calculation

** The percentage score of critical elements Met is calculated by dividing the total critical elements Met by the sum of the critical elements Met, Partially Met, and Not

*** Met equals high confidence/confidence that the PIP was valid.
Partially Met equals low confidence that the PIP was valid.
Not Met equals reported PIP results that were not credible.

EVALUATION OF THE OVERALL VALIDITY AND RELIABILITY OF PIP RESULTS
HSAG assessed the validity and reliability of the results based on CMS validation protocols and determined whether the State and key stakeholders can have confidence in the reported PIP findings. Based on the validation of this PIP, HSAG's assessment determined the following:
Met: **High confidence/confidence in reported PIP results. All critical evaluation elements were Met, and 80 to 100 percent of all evaluation elements were Met across all activities.** ***Partially Met:*** **Low confidence in reported PIP results. All critical evaluation elements were Met, and 60 to 79 percent of all evaluation elements were Met across all activities; or one or more critical evaluation elements were Partially Met.** ***Not Met:*** **All critical evaluation elements were Met, and less than 60 percent of all evaluation elements were Met across all activities; or one or more critical evaluation elements were Not Met.**

Summary of Aggregate Validation Findings

[X]	***Met***	[ ]	***Partially Met***	[ ]	***Not Met***

Appendix B. PIP Summary Form

Appendix B contains the final PIP Summary Form **Mid-State Health Network** submitted to HSAG for validation. HSAG made only minor grammatical corrections to these forms; the content/meaning was not altered. This appendix does not include any attachments provided with the PIP submission.

Appendix B: State of Michigan 2020-21 PIP Summary Form
Patients With Schizophrenia and Diabetes Who Had an HbA1c and LDL-C Test
for Region 5 - Mid-State Health Network

Demographic Information	
Plan Name: **Mid-State Health Network**	Type of Delivery System: Clinical
Project Leader Name: Sandy Gettel	Title: Quality Manager
Telephone Number: 517-220-2422	Email Address: sandy.gettel@midstatehealthnetwork.org
Name of Project: Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period.	
Submission Date: June 28, 2021	
Resubmission Date: August 13, 2021	

Step 1: Select the Study Topic. The study topic should be selected based on data that identify an opportunity for improvement. The goal of the project should be to improve processes and outcomes of healthcare. The topic may also be specified by the State.

Study Topic: The study topic is "Patient(s) with schizophrenia and diabetes who had an HbA1c and LDL-C test during the report period." The study topic aligns with a HEDIS Measure. The study topic was one of the identified topics by the Michigan Department of Health and Human Services Shared Metric Workgroup. This workgroup developed a list of topics, including this one, to have shared monitoring of health plan performance on national measures.

The goal of this PIP is to ensure that adult consumers with schizophrenia and diabetes receive both the HbA1c and LDL-C tests to ensure ongoing monitoring of an existing health condition.

The previous performance improvement project completed by Mid-State Health Network was "Diabetes Screening for People with Schizophrenia or Bipolar Disorder who are using Antipsychotic Medications." This project demonstrated positive results by meeting the established goals during remeasurement period one and remeasurement period two. The percentage of those who completed the diabetes screenings was 73.7% at baseline and was at 80.4% for remeasurement period two. The interventions applied included utilizing the ICDP database to run care alert reports monthly providing real time data, providing education to beneficiaries during person-centered planning on the importance of ongoing monitoring by a primary care physician and coordinating the completion of the screenings through the CMHSP or through the primary care physician. The results of this project exceeded our established goals. When compared to benchmark rates, MSHN started at 73.7% during baseline as compared to 83.6% for the Medicaid Health Plans and showed a marked improvement by our observed rate being at 80.4% and the Medicaid Health Plans rate being at 82.6% during remeasurement period two.

Based on the success of the interventions being applied, choosing the project "Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period" was a natural next step to continue to utilize the interventions to full capacity and to continue to emphasis coordination of care among beneficiaries.

Provide plan-specific data: This topic was chosen by the PIHP to make sure consumers were receiving certain physical health screenings and tests that might be performed outside of standard age- and sex-specific guidelines. HEDIS definitions were used as these are the gold standard for patient care and by using these guidelines, PIHP findings can be compared to other healthcare organizations (more directly

Step 1: Select the Study Topic. The study topic should be selected based on data that identify an opportunity for improvement. The goal of the project should be to improve processes and outcomes of healthcare. The topic may also be specified by the State.

comparable to other PIHPs as socioeconomic factors would be similar). The HbA1c is relevant to test for blood glucose levels over time as it quantifies how well an individual's blood glucose levels are being controlled. The LDL-C is relevant to predict an individual's risk of developing heart disease. Typically, those who have been diagnosed with diabetes have an increased risk for heart disease. Completing both the HbA1c and the LDL-C will test for controlled blood glucose levels and risks for developing heart disease.

Historical Data for the region is not available for MSHN.

Baseline data received during the report period January 1, 2018 through December 31, 2018 for "Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period" indicated that MSHN had a rate of 52.6% (543/1031) for those who received a HbA1c and LDL-C. By comparison, the Michigan Weighted Average (MWA)which consists of the Medicaid Health Plans in Michigan, demonstrated 69.97% for those who received a HbA1c and LDL-C test during the baseline measurement year.

During a validation check it was identified that the diagnosis of Bi-polar and Schizophrenia were both included in the baseline data for the calendar year 2018. The diagnosis of Bipolar should not be included in the specifications for the "Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period" project. This error occurred when the measurement periods were changed from fiscal year to calendar year. The baseline data was then rerun with the correct specifications. The revised baseline data was determined to be 33.6 percent (294/874).

Describe how the study topic has the potential to improve consumer health, functional status, or satisfaction: HEDIS measures are designed to assess the quality of healthcare services received and this topic will help identify whether those receiving specialty behavioral health services for schizophrenia are receiving screenings and tests related to controlling diabetes and assessing risks for heart disease.

Step 2: Define the Study Question(s). Stating the question(s) helps maintain the focus of the PIP and sets the framework for data collection, analysis, and interpretation.

The Study Question(s) should:

- Be structured in the recommended X/Y format: "Does doing X result in Y?"
- State the problem in clear and simple terms.
- Be answerable based on the data collection methodology and study indicator(s).

Study Question(s): Do targeted interventions increase the percentage of consumers diagnosed with schizophrenia who have an annual HbA1c and LDL-C test?

Step 3: Define the Study Population. The study population should be clearly defined to represent the population to which the study question and indicators apply, without excluding consumers with special healthcare needs.

The study population definition should:

- Include the requirements for the length of enrollment, continuous enrollment, new enrollment, and allowable gap criteria.
- Include the age range and the anchor dates used to identify age criteria, if applicable.
- Include the inclusion, exclusion, and diagnosis criteria.
- Include a list of diagnosis/procedure/pharmacy/billing codes used to identify consumers, if applicable.
- Capture all consumers to whom the study question(s) applies.
- Include how race and ethnicity will be identified, if applicable.

Study Population: Medicaid enrolled adults with schizophrenia who have been diagnosed with diabetes.

Enrollment requirements (if applicable): Medicaid eligible adults (18-64 years old) receiving services from the PIHP who have at least one PIHP reported encounter to the State's data warehouse. Continuous Medicaid Enrollment applies to the study question. Members with more than one gap in enrollment, or one gap greater than 45 days as determined by the 834 enrollment file will be excluded. Included Medicaid Scope and coverage codes D1, D2, F1, F2, K1, K2, P1, T1, T2.

Consumer age criteria (if applicable): Adults age 18 years to 64 years of age as of the end of the measurement period.

Inclusion, exclusion, and diagnosis criteria:

The potentially eligible members will include those between the ages of 18 and 64, at of the end of the measurement period, who also satisfy the following:

- One, or both, of the following conditions during the measurement year:
  - At least one acute inpatient encounter, with any diagnosis of schizophrenia
  - At least two visits in an outpatient, intensive outpatient, partial hospitalization, ED or non-acute inpatient setting, on different dates of service, with any diagnosis of schizophrenia

Step 3: Define the Study Population. The study population should be clearly defined to represent the population to which the study question and indicators apply, without excluding consumers with special healthcare needs.

The study population definition should:

- Include the requirements for the length of enrollment, continuous enrollment, new enrollment, and allowable gap criteria.
- Include the age range and the anchor dates used to identify age criteria, if applicable.
- Include the inclusion, exclusion, and diagnosis criteria.
- Include a list of diagnosis/procedure/pharmacy/billing codes used to identify consumers, if applicable.
- Capture all consumers to whom the study question(s) applies.
- Include how race and ethnicity will be identified, if applicable.

- Members with diabetes, must be determined by the following (during the measurement year or the year prior to the measurement year)
    - Claim/encounter data:
        - At least two outpatient visits, observation visits, ED visits or nonacute inpatient encounters, on different dates of service, with a diagnosis of diabetes. Visit type need not be the same for the two encounters
        - At least one acute inpatient encounter with a diagnosis of diabetes
    - Pharmacy data:
        - Members who were dispensed insulin or oral hypoglycemic/anti-hyperglycemic on an ambulatory basis

The eligible population, will be calculated by excluding the potentially eligible members who meet the following conditions:

- Members with no more than one gap in enrollment of up to 45 days during the measurement year as determined by the 834 enrollment file. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled.

Diagnosis/procedure/pharmacy/billing codes (if applicable):

The attached *SMD_Value Sets-2018.xlsx* file of the code sets published in 2018 by the National Quality Forum to be used for the HEDIS measure "Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period" were used.

Step 3: Define the Study Population. The study population should be clearly defined to represent the population to which the study question and indicators apply, without excluding consumers with special healthcare needs.

The study population definition should:

- Include the requirements for the length of enrollment, continuous enrollment, new enrollment, and allowable gap criteria.
- Include the age range and the anchor dates used to identify age criteria, if applicable.
- Include the inclusion, exclusion, and diagnosis criteria.
- Include a list of diagnosis/procedure/pharmacy/billing codes used to identify consumers, if applicable.
- Capture all consumers to whom the study question(s) applies.
- Include how race and ethnicity will be identified, if applicable.

A summary of HEDIS specification changes for 2019. The impact of the changes can be found in Step VII.

- *Clarified that schizoaffective disorder is included in the measure in the description and step 1 of the event/diagnosis.*
- *Incorporated telehealth into the measure specification*
- *Restructured the e codes and value sets for identifying members with schizophrenia (step 1). Refer to the Value Set Directory for adetailed summary of changes.*

The attached SMD Value Set 2019 file code sets published in 2018 by the National Quality Forum to be used for the HEDIS measure "Patients(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period" were used.

A summary of HEDIS specification changes for 2020. The impact of the changes can be found in Step VII.

- *Modified value sets to make them compatible with digital measure formatting.*
- *Removed "with or without a telehealth modifier" language; refer to General Guideline 43.*
- *Clarified the telehealth requirements for identifying the event/diagnosis.*
- *Updated value sets used to identify acute and nonacute inpatient events with a diagnosis of diabetes.*
- *Added the Rules for Allowable Adjustments of HEDIS section.*

The attached SMD Value Set 2020 file code sets published in 2019 by the National Quality Forum to be used for the HEDIS measure "Patients(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period" were used.

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound. **The description of the study Indicator(s) should:** • Include the complete title of the study indicator(s). • Include a narrative description of the numerator(s) and denominator(s). • Include the rationale for selecting the study indicator(s). • If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually. • Include complete dates for all measurement periods (with the day, month, and year). • Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound. • Include the State-designated goal, if applicable.

Study Indicator 1: Patient(s) with Schizophrenia and Diabetes who had an HbA1c and LDL-C test during the report period .	**Provide a narrative description and the rationale for selection of the study indicator. Describe the basis on which the indicator was adopted, if internally developed.** The goal of this PIP is to ensure that adult consumers with schizophrenia and diabetes receive both the HbA1c and LDL-C tests to ensure ongoing monitoring of an existing health condition. The study topic aligns with the HEDIS Measure "Patient(s) with schizophrenia and diabeteswho had an HbA1c and LDL-C test during the report period" as specified in the most recent HEDIS Technical Specifications.

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound. **The description of the study Indicator(s) should:** • Include the complete title of the study indicator(s). • Include a narrative description of the numerator(s) and denominator(s). • Include the rationale for selecting the study indicator(s). • If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually. • Include complete dates for all measurement periods (with the day, month, and year). • Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound. • Include the State-designated goal, if applicable.	
	This topic was chosen by the PIHP to make sure consumers were receiving certain physical health screenings and tests that might be performed outside of standard age- and sex-specific guidelines. HEDIS definitions were used as these are the gold standard for patient care and by using these guidelines, PIHP findings can be compared to other healthcare organizations (more directly comparable to other PIHPs as socioeconomic factors would be similar). The HbA1c is relevant to test for blood glucose levels over time as it quantifies how well an individual's blood glucose levels are being controlled. The LDL-C is relevant to predict an individual's risk of developing heart disease. Typically, those who have been diagnosed with diabetes have an increased risk for heart disease. Completing both the HbA1c and the LDL-C will test for controlled blood glucose levels and risks for developing heart disease.
Numerator Description:	Those in the denominator who had the HbA1c and an LDL-C test performed during the measurement year.

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound.

The description of the study Indicator(s) should:

- Include the complete title of the study indicator(s).
- Include a narrative description of the numerator(s) and denominator(s).
- Include the rationale for selecting the study indicator(s).
- If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually.
- Include complete dates for all measurement periods (with the day, month, and year).
- Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound.
- Include the State-designated goal, if applicable.

Denominator Description:	The entire eligible populations for the study indicator based on HEDIS specifications for the SMD measure.
Baseline Measurement Period (include date range) 01/01/2018 – 12/31/2018	01/01/2018 – 12/31/2018
Remeasurement 1 Period (include date range) 01/01/2019 – 12/31/2019	01/01/2019- 12/31/2019
Remeasurement 1 Period Goal	A 7% increase over the baseline rate (not a 7 percentage-point increase Revised: The baseline rate is 33.6%. The remeasurement 1 goal is 36.0%. See step 1 on page 3 for reason of revision.
Remeasurement 2 Period (include date range) 01/01/2020 – 12/31/2020	01/01/2020 -12/31/2020

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound. **The description of the study Indicator(s) should:** • Include the complete title of the study indicator(s). • Include a narrative description of the numerator(s) and denominator(s). • Include the rationale for selecting the study indicator(s). • If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually. • Include complete dates for all measurement periods (with the day, month, and year). • Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound. • Include the State-designated goal, if applicable.	
Remeasurement 2 Period Goal	A 7% increase over the remeasurement period 1 rate of 36.1%. The remeasurement period 2 goal is 38.6%.
State-Designated Goal or Benchmark	N/A (However, health plan ranking from MI2020 HEDIS 2020 Results Statewide Aggregate Report indicated the Michigan Weighted Average for those who received a HbA1c and LDL-C test during 2020 measurement year was 68.3%. 68.3% excludes those enrolled in Medicare and Medicaid.
Source of Benchmark	
Study Indicator 2: [Enter title]	**Provide a narrative description and the rationale for selection of the study indicator. Describe the basis on which the indicator was adopted, if internally developed.** *Not Applicable – Only one Study Indicator for this Project*
Numerator Description:	*Not Applicable – Only one Study Indicator for this Project*
Denominator Description:	*Not Applicable – Only one Study Indicator for this Project*

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound.

The description of the study Indicator(s) should:

- Include the complete title of the study indicator(s).
- Include a narrative description of the numerator(s) and denominator(s).
- Include the rationale for selecting the study indicator(s).
- If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually.
- Include complete dates for all measurement periods (with the day, month, and year).
- Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound.
- Include the State-designated goal, if applicable.

Baseline Measurement Period (include date range) MM/DD/YYYY to MM/DD/YYYY	*Not Applicable – Only one Study Indicator for this Project*
Remeasurement 1 Period (include date range) MM/DD/YYYY to MM/DD/YYYY	*Not Applicable – Only one Study Indicator for this Project*
Remeasurement 1 Period Goal	*Not Applicable – Only one Study Indicator for this Project*
Remeasurement 2 Period (include date range) MM/DD/YYYY to MM/DD/YYYY	*Not Applicable – Only one Study Indicator for this Project*

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound. **The description of the study Indicator(s) should:** • Include the complete title of the study indicator(s). • Include a narrative description of the numerator(s) and denominator(s). • Include the rationale for selecting the study indicator(s). • If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually. • Include complete dates for all measurement periods (with the day, month, and year). • Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound. • Include the State-designated goal, if applicable.	
Remeasurement 2 Period Goal	*Not Applicable – Only one Study Indicator for this Project*
State-Designated Goal or Benchmark	*Not Applicable – Only one Study Indicator for this Project*
Source of Benchmark	*Not Applicable – Only one Study Indicator for this Project*
Study Indicator 3: [Enter title]	**Provide a narrative description and the rationale for selection of the study indicator. Describe the basis on which the indicator was adopted, if internally developed.** *Not Applicable – Only one Study Indicator for this Project*
Numerator Description:	*Not Applicable – Only one Study Indicator for this Project*
Denominator Description:	*Not Applicable – Only one Study Indicator for this Project*

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound. **The description of the study Indicator(s) should:** • Include the complete title of the study indicator(s). • Include a narrative description of the numerator(s) and denominator(s). • Include the rationale for selecting the study indicator(s). • If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually. • Include complete dates for all measurement periods (with the day, month, and year). • Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound. • Include the State-designated goal, if applicable.	
Baseline Measurement Period (include date range) MM/DD/YYYY to MM/DD/YYYY	*Not Applicable – Only one Study Indicator for this Project*
Remeasurement 1 Period (include date range) MM/DD/YYYY to MM/DD/YYYY	*Not Applicable – Only one Study Indicator for this Project*
Remeasurement 1 Period Goal	*Not Applicable – Only one Study Indicator for this Project*
Remeasurement 2 Period (include date range) MM/DD/YYYY to MM/DD/YYYY	*Not Applicable – Only one Study Indicator for this Project*

Step 4: Select the Study Indicator(s). A study indicator is a quantitative or qualitative characteristic or variable that reflects a discrete event or a status that is to be measured. The selected indicator(s) should track performance or improvement over time. The indicator(s) should be objective, clearly and unambiguously defined, and based on current clinical knowledge or health services research. Study indicator goals should be specific, measurable, attainable, relevant, and time-bound.

The description of the study Indicator(s) should:

- Include the complete title of the study indicator(s).
- Include a narrative description of the numerator(s) and denominator(s).
- Include the rationale for selecting the study indicator(s).
- If indicators are based on nationally recognized measures (e.g., HEDIS), include the year of the HEDIS technical specifications used for the applicable measurement year and update the year annually.
- Include complete dates for all measurement periods (with the day, month, and year).
- Include plan-specific goals for the remeasurement periods that are specific, measurable, attainable, relevant, and time-bound.
- Include the State-designated goal, if applicable.

Remeasurement 2 Period Goal	*Not Applicable – Only one Study Indicator for this Project*
State-Designated Goal or Benchmark	*Not Applicable – Only one Study Indicator for this Project*
Source of Benchmark	*Not Applicable – Only one Study Indicator for this Project*

Use this area to provide additional information, if necessary.

Step 5: Use Sound Sampling Techniques. If sampling is used to select consumers of the study, proper sampling techniques are necessary to provide valid and reliable information on the quality of care provided. Sampling techniques should be in accordance with generally accepted principles of research design and statistical analysis.

The description of the sampling methods should:

- Include components identified in the table below.
- Be updated annually for each measurement period and for each study indicator.
- Include a detailed narrative description of the methods used to select the sample and ensure sampling techniques support generalizable results.

Measurement Period	Study Indicator	Population Size	Sample Size	Margin of Error and Confidence Level
MM/DD/YYYY–MM/DD/YYYY				

Describe in detail the methods used to select the sample:

N/A, all eligible consumers will be included in the study.

Step 6: Reliably Collect Data. The data collection process must ensure that data collected for the study indicators are valid and reliable.

The data collection methodology should include the following:

- Identification of data elements and data sources.
- When and how data are collected.
- How data are used to calculate the study indicators.
- A copy of the manual data collection tool, if applicable.
- An estimate of the administrative data completeness percentage and the process used to determine this percentage.

Data Sources (Select all that apply)

[ ] Hybrid—Both medical/treatment record review (manual data collection) and administrative data.

[ ] Medical/Treatment Record Abstraction
- Record Type
  - [ ] Outpatient
  - [ ] Inpatient
  - [ ] Other

_____

Other Requirements
- [ ] Data collection tool attached
- [ ] Other data

_____

[X] Administrative Data
- Data Source
  - [X] Programmed pull from claims/encounters
  - [ ] Complaint/appeal
  - [X] Pharmacy data
  - [ ] Telephone service data/call center data
  - [ ] Appointment/access data
  - [ ] Delegated entity/vendor data _____
  - [X] Other _Medicaid Claims Dataset_____

Other Requirements
- [X] Codes used to identify data elements (e.g., ICD-9/ICD-10, CPT codes)__ ICD-9/10, CPT Codes, NDC_____
- [ ] Data completeness assessment attached
- [ ] Coding verification process attached

Estimated percentage of administrative data completeness: _95_ percent.

[ ] Survey Data
- Fielding Method
  - [ ] Personal interview
  - [ ] Mail
  - [ ] Phone with CATI script
  - [ ] Phone with IVR
  - [ ] Internet
  - [ ] Other

_____

Other Requirements
- [ ] Number of waves

_____
- [ ] Response rate _____
- [ ] Incentives used _____

Step 6: Reliably Collect Data. The data collection process must ensure that data collected for the study indicators are valid and reliable. **The data collection methodology should include the following:** • Identification of data elements and data sources. • When and how data are collected. • How data are used to calculate the study indicators. • A copy of the manual data collection tool, if applicable. • An estimate of the administrative data completeness percentage and the process used to determine this percentage.		
	Describe the process used to determine data completeness: Claims and encounters are submitted to MDHHS from all types of providers. MDHHS will not accept claims/encounters into its warehouse without meeting the minimum standards for submission. Providers are required to submit Medicaid encounters to MDHHS within 30 days after the service was provided. Transactions will not be accepted if they do not meet completeness requirements. Typically, over 95% of the transactions are submitted within the 30 days after service date timeframes.	

Step 6: Determine the Data Collection Cycle.	Determine the Data Analysis Cycle.
[ ] Once a year [ ] Twice a year [ ] Once a season [X] Once a quarter [ ] Once a month [ ] Once a week [ ] Once a day [ ] Continuous [ ] Other (list and describe):	[X] Once a year [ ] Once a season [ ] Once a quarter [ ] Once a month [ ] Continuous [ ] Other (list and describe):

Describe the data collection process:

Data analysis plan:

Rates are determined by dividing the number of those in the study population with the physical health service of interest (HbA1c and LDL-C) by all those in the study population. Rates will be compared between measurement periods using 2-proportion tests (95% two-sided confidence interval). Benchmark rates for the same HEDIS measure are available for a single year for Medicaid Health Plans in Michigan and will be used to compare to MSHN rates using 2-proportion tests (95% two-sided confidence interval). The Michigan specifications for the HEDIS measure excludes those with Medicare and Medicaid.

Data collection process:

Data from the Medicaid Claims Dataset are all physical and mental health claims (excluding substance use disorder claims) for CMHSP consumers that were paid by Medicaid. Claims are updated nightly and available for the PIHP to retrieve from MDHHS once per week. Claims can be retrieved less frequently from MDHHS as well. These claims contain information on eligibility criteria (prescription fills) as well as outcomes of interest (PCP visits and HbA1c and LDL-C test). Claims are limited to identifying that a service was provided (with associated ICD-9/10 codes where applicable) but do not report the results from any screenings/tests.

Step 1: The PIHP will use the enrollment file (834) to identify all Medicaid enrollees in the measurement year. A file listing these individuals (5656) is uploaded per MDHHS requirements to DEG mailbox.

Step 2: On the following Monday morning claims files (5657) should be ready for downloading from the DEG mailbox

Step 3: Data is imported and merged with any previous claims data files

Step 4: The potentially eligible members will include those between the ages of 18 and 64, at of the end of the measurement period, who also satisfy the following:

- One, or both, of the following conditions during the measurement year:
  - At least one acute inpatient encounter, with any diagnosis of schizophrenia
  - At least two visits in an outpatient, intensive outpatient, partial hospitalization, ED or non-acute inpatient setting, on different dates of service, with any diagnosis of schizophrenia

Describe the data collection process:

- Members with diabetes, must be determined by the following (during the measurement year or the year prior to the measurement year)
  - Claim/encounter data:
    - At least two outpatient visits, observation visits, ED visits or nonacute inpatient encounters, on different dates of service, with a diagnosis of diabetes. Visit type need not be the same for the two encounters
    - At least one acute inpatient encounter with a diagnosis of diabetes
  - Pharmacy data:
    - Members who were dispensed insulin or oral hypoglycemic/anti-hyperglycemic on an ambulatory basis

Step 5: The eligible population (denominator), will be calculated by excluding the potential eligible members who meet the following conditions:

- Members with no more than one gap in enrollment of up to 45 days during the measurement year as determined by the 834 enrollment file. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled.

Step 6: The progress of the eligible population (numerator), will be calculated by counting the members who meet the following condition:

- A HbA1c and LDL-C tests performed during the measurement year

Data retrieval and analysis can be done by PIHP-contracted personnel or through a vendor supplied this same Medicaid Claims Data by the PIHP. Either process will follow the same data collection steps and yield the same results.

To ensure the completeness and accuracy of the data in determining the study indicator rate, the PIHP will take into account the time lag allowed for the submission of claims for the CMHSP consumers. The data utilized to determine the study indicator rate will be retrieved for analysis 90 days after the end of the measurement period.

Step 7: Study Indicator Results. Enter the results of the study indicator(s) in the table below. For HEDIS-based PIPs, the data reported in the PIP Summary Form should match the validated performance measure rate(s).

Enter results for each study indicator—including the goals, statistical testing with complete *p* values, and the statistical significance—in the table provided.

Study Indicator 1 Title: [Enter title of study indicator]

Time Period Measurement Covers	Indicator Measurement	Numerator	Denominator	Rate or Results	Goal	Statistical Test, Statistical Significance, and *p* Value
01/01/2018–12/31/2018	**Baseline**	294	874	33.6%	NA	NA
	Remeasurement 1	303	840	36.1%	36.0%	Two sample test of proportions. There is no statistical significance. The p value is .291.
	Remeasurement 2	321	652	49.2%	38.6%	Two sample test of proportions. The difference is statistically significant, with p value <0.0001
	Remeasurement 3					

Study Indicator 2 Title: [Enter title of study indicator]

Time Period Measurement Covers	Indicator Measurement	Numerator	Denominator	Rate or Results	Goal	Statistical Test, Statistical Significance, and *p* Value
MM/DD/YYYY–MM/DD/YYYY	**Baseline**					
	Remeasurement 1					

Step 7: Study Indicator Results. Enter the results of the study indicator(s) in the table below. For HEDIS-based PIPs, the data reported in the PIP Summary Form should match the validated performance measure rate(s).

Enter results for each study indicator—including the goals, statistical testing with complete *p* values, and the statistical significance—in the table provided.

	Remeasurement 2					
	Remeasurement 3					

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step 7.

Describe the data analysis process and provide an interpretation of the results for each measurement period.

Baseline Measurement:

For the Baseline Measurement period of 01/01/2018-12/31/2018, the total number of Medicaid Beneficiaries that were eligible to be included in the study were 1032. MSHN had a total of 543 beneficiaries (52.6%), out of the eligible 1032, have had an LDL-C and a HbA1c test performed during the baseline measurement year. MSHN's goal for Baseline to Remeasurement Period one is to increase the results by a 7%, to 56.3%, which is a 3.7% percentage point increase over the baseline rate of 52.6%.

Revised Baseline Measurement:

For the Baseline Measurement period of 01/01/2018-12/31/2018, the total number of Medicaid Beneficiaries that were eligible to be included in the study were 874. MSHN had a total of 294 beneficiaries (33.6%) out of the eligible 874, who had an LDL-C and a HbA1c test performed during the baseline measurement year. MSHN's goal for Baseline to Remeasurement Period one is to increase the results by 7%, to 36.0% which is a 2.40 percentage point increase over the baseline rate of 33.6%

For the Baseline Measurement period, rates were determined by dividing the number of those in the study population with the physical health service of interest (diabetes monitoring) by all those in the study population. Rates will be compared between measurement period using 2-proportion tests (95% two-sided confidence interval). Benchmark rates for the same HEDIS measure are available for a single year for

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

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- Data presented clearly, accurately, and consistently in both table and narrative format.
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- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step 7.

Medicaid Health Plans in Michigan and will be used to compare to MSHN rates using 2-proportion tests (95% two-sided confidence interval).

Benchmark Data Source.

Performance benchmarks were obtained by summarizing performance by health plans across Michigan using the data published on the Michigan Department of Health and Human Services (MDHHS) website for the 2018 HEDIS results, 2019 HEDIS results, and the 2020 HEDIS results.

For the measurement periods of 2018, 2019, and 2020 we used figures reported in Figure 8-34 (2018 HEDIS Report), Figure 8-34 (2019 HEDIS Report), and Figure 8-34 (2020 HEDIS Report) respectively. Those figures provide screening rates and population sizes for each Medicaid health plan. For instance, for the UPP plan in 2020, the rate is 81.3% for a population of 80, which means that (0.8125)(80) = 65 were screened in 2020 in UPP. Similar counts of screened individuals were determined for the other reported groups.

Using the same process, the screened rate among baseline groups from Figure 8-34 of the
2020 HEDIS Report is 1,701 out of 2490 or 0.6831.
2019 HEDIS Report is 1,634 out of 2,316 or 0.7056
2018 HEDIS Report is 1,585 out of 2,265 or 0.6997.

It should be noted that individuals with both Medicaid and Medicare are excluded from theAggregated HEDIS Report.

Factors that may impact the data

It was identified that the incorrect specifications had been applied following a change in the measurement year from fiscal year to calendar

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- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step 7.

year. This resulted in a recalculation of the baseline rate. Prior to this identification, the PIHP had been reaching the goal as specified. Once the issue was identified and the new baseline was rerun, enough time was not allowed for reassessment of and application of additional interventions to impact the final remeasurement data.

The specification for this HEDIS measure was revised for 2019. The baseline year utilized the 2018 HEDIS specifications. The remeasurement year 1 utilized the 2019 HEDIS specifications.

A summary of changes that may have an impact on the project going forward include the following:

- *Clarified that schizoaffective disorder is included in the measure in the description and step 1 of the event/diagnosis.* The clarification of the inclusion of the schizoaffective disorder will have no impact on MSHN data going forward. This was a clarification and not an addition. The schizoaffective disorder had already been included in the data set for MSHN.
- *Incorporated telehealth into the measure specification.* The telehealth codes added to the value set will increase the denominator in such a way that was not allowed in 2018. The addition of this will negatively impact the rates as it is not possible to obtain the required laboratory tests through a telehealth service included in the 2019 specifications.

Restructured the codes and value sets for identifying members with schizophrenia (step 1). Refer to the Value Set Directory for adetailed summary of changes. As indicated above this change will have no impact since the schizoaffective codes were already included in the MSHN Data.

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

Remeasurement year 2 utilized the 2020 HEDIS specifications.

A summary of changes in the 2020 specifications area as follows:

- *Modified value sets to make them compatible with digital measure formatting*. This change has had no impact on the project.
- *Removed "with or without a telehealth modifier" language; refer to General Guideline 43*. This change had no impact on the project.
- *Clarified the telehealth requirements for identifying the event/diagnosis*. This change had no impact on the project.
- *Updated value sets used to identify acute and nonacute inpatient events with a diagnosis of diabetes*. This change had no impact on the project.
- *Added the Rules for Allowable Adjustments of HEDIS section*. This had had no impact on the project.

Attachment 2 SMD Technical Specifications 2019
Attachment 2a SMD Technical Specifications 2020
Attachment 3 M. HEDIS 2019 Volume 2 VSD 11.05.2018
Attachment 3a M. HEDIS 2020 Volume 2 VSD 10.1.2019

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

The following is a description of how the calculations for the remeasurement data for this project are determined based on the 2020 HEDIS Specifications:

(The denominator) The potentially eligible members will include those between the ages of 18 and 64, at of the end of the measurement period, who also satisfy the following:

- One, or both, of the following conditions during the measurement year:
  - At least one acute inpatient encounter, with any diagnosis of schizophrenia or schizoaffective disorder.
  - At least two visits in an outpatient, intensive outpatient, partial hospitalization, ED or non-acute inpatient setting, on different dates of service, and with any diagnosis of schizophrenia or schizoaffective disorder.
- Members with diabetes, must be determined by the following (during the measurement year or the year prior to the measurement year)
  - Claim/encounter data:
    - At least two outpatient visits, observation visits, telephone visits, online assessments, ED visits or nonacute inpatient encounters, non-acute inpatient discharges on different dates of service, with a diagnosis of diabetes. Visit type need not be the same for the two encounters
    - At least one acute inpatient encounter without telehealth, and with a diagnosis of diabetes
    - Only one of the two visits may be a telehealth visit, telephone visit, or an online assessment.
    - Only include acute non-inpatient without telehealth.
  - Pharmacy data:

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

- Members who were dispensed insulin or oral hypoglycemic/anti-hyperglycemic on an ambulatory basis

The eligible population (denominator), will be calculated by excluding the potential eligible members who meet the following conditions:

- Members with no more than one gap in enrollment of up to 45 days during the measurement year as determined by the 834-enrollment file. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage (i.e., a member whose coverage lapses for 2 months [60 days] is not considered continuously enrolled.

2019 HEDIS specifications include the following: Clarification of the inclusion of Schizoaffective Disorder. The inclusion of the Telehealth Modifier Value Set and the Telehealth POS Value Set.

The progress of the eligible population (numerator), will be calculated by counting the members who meet the following condition:

- A HbA1c and LDL-C tests performed during the measurement year

Baseline data will be compared to remeasurement period one following completion of the first year. Baseline and remeasurement period one data and remeasurement period one goal will then be compared to remeasurement period two after the close of the second year.

Data will be analyzed against the interventions and used to determine the most/least effective strategies. In areas where significant change has occurred, strategies and interventions that led to the increase will be analyzed. These techniques will be considered for implementation across

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

the PIHP.

Currently only baseline data is available, therefore, there is no random variations, population changes, sampling errors or statistical significance discussion that can occur. This will be reviewed during the analysis of the remeasurement one period.

Additionally, there are no factors identified that threaten the internal or external validity of the findings. After a casual/barrier analysis is completed and the data is analyzed for remeasurement period 1, factors that threaten validity may be evident and will be assessed at that time. Any issues that cause errors or any statistically significant increases or decreases that may have occurred during the remeasurement process will be reviewed after the completion of remeasurement period one.

Results and Interpretation

Baseline to Remeasurement 1:

Change in PIHP Performance Compared to Baseline.

To compare the screening rates of the PIHP between 2018 and 2019, we conducted a two sample test of proportions. The rate of screening in the PIHP's 2019 sample is higher (36.1%) than the rate in the 2018 sample (33.6%), demonstrating a 2.5 percentage point (or 7.4 percent) improvement from the 2019 sample over the baseline 2018 sample. The difference is not statistically significant, with P-value 0.2906. A 95% confidence interval for the difference in rate ranges from -2.1 to 6.9 percentage points.

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
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- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

Comparison of PIHP Monitoring Rates with Benchmark Rates. The result of a two-proportion test for 2019 data show that there is a significant difference (P-value of 3.325×10^{-69}) between the screening rate for MSHN PIHP at 36.1% and the statewide health plans HEDIS rate at 70.6%. A 95% confidence interval gives the difference as being in the range of 30.7 and 38.2 percentage points. A similar analysis performed using data from 2018 shows a significant difference (P-value of 1.254×10^{-77}) between the 2018 PIHP screening rate of 33.6% and the 2018 HEDIS rate of 70%. In the case of 2018 data, a 95% confidence interval for the difference in rate ranges from 32.7 to 40.0 percentage points.
Rates for PIHP monitoring are, in both cases, lower than the benchmark rates at a statistically significant level. This may be in part to the impact of the individuals with dual coverage (Medicaid/Medicare). If MSHN were to exclude those with dual coverage the baseline rate for 2018 would be 67.48% compared to the 2018 Michigan HEDIS results of 69.98%. The MSHN 2019 rate excluding those with dual coverage would be 68.77% compared to the 2019 Michigan HEDIS results of 70.33%.

Change in Benchmark Performance Compared to Previous Year. Earlier we noted that PIHP providers made gains in 2019 over the prior year, where95% confidence estimates ranging from -2.1 to 6.9 percentage points over 2018 performance. If we conduct a two sample proportion test between HEDIS rates from 2018 to 2019, we see the 95% confidence estimate for the change of overall screening rate for provider groups in the HEDIS Aggregate Report ranges from being down 3.2% to being up 2.1% from 2018 to 2019. Demonstrating similar results to the PIHP comparison from 2018 to 2019.

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

Impact Analysis Measurement Baseline to Year 1

It was identified that the incorrect specifications had been applied following a change in the measurement year from fiscal year to calendar year. This resulted in a recalculation of the baseline rate. Prior to this identification, the PIHP had been reaching the goal as specified. Oncethe issue was identified and the new baseline was rerun, enough time was not allowed for reassessment of and application of additional interventions to impact the final remeasurement data. The recalculation results demonstrated a decrease in the number eligible for the study population. The impact of this may have been directly related to the removal of individuals with a Bipolar Disorder. During the previous Individuals with a Bipolar Disorder were included in the previous PIP. Processes was implemented and effective in demonstrating an increase in individuals who were screened for diabetes. The positive effects of the previous performance improvement project were carried over to the current project. Once removed the data was impacted negatively.

MSHN is dependent on the data provided by MDHHS through Care Connect 360 and processed by ICDP. The following factors have animpact on the project:

- System errors or issues related to the attribution of a record to a designated CMHSP at the State level may impact the results.
- Claims submitted by the physicians' offices do not include claims submitted to Medicare for the required lab work, or lab work billedunder a code not included within the value set of the HEDIS specifications.

As indicated above individuals that have received lab work that has been billed to Medicare require coordination with the physician's office to ensure the information about the receipt of the lab work is available. Fifty-four percent of the eligible population include individuals with dualcoverage

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

(Medicare /Medicaid). 81% (433) of those not screened had dual coverage ((Medicare /Medicaid). The results of the lab work are dependent on the ability to receive the required evidence of the completed lab work from the physician offices, therefore promoting increased coordination among providers. If MSHN were to exclude those with dual coverage the baseline rate for 2018 would be 67.48% compared to the 2018 Michigan HEDIS results of 69.98%. The MSHN 2019 rate excluding those with dual coverage would be 68.77% compared to the 2019 Michigan HEDIS results of 70.33%.

The specification for this HEDIS measure was revised for 2019. The baseline year utilized the 2018 HEDIS specifications. The remeasurement year 1 utilized the 2019 HEDIS specifications. A summary of changes that may have an impact on the project going forward include the following:

- *Clarified that schizoaffective disorder is included in the measure in the description and step 1 of the event/diagnosis.* The clarification of the inclusion of the schizoaffective disorder will have no impact on MSHN data going forward. This was a clarification and not an addition. The schizoaffective disorder had already been included in the data set for MSHN.
- *Incorporated telehealth into the measure specification.* The telehealth codes added to the value set will increase the denominator in such a way that was not allowed in 2018. The addition of this will negatively impact the rates as it is not possible to obtain the required laboratory tests through a telehealth service included in the 2019 specifications.
- *Restructured the codes and value sets for identifying members with schizophrenia (step 1). Refer to the Value Set Directory for adetailed summary of changes.* As indicated above this change will have no impact since the schizoaffective codes were already included in the

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

MSHN Data

An additional factor having an impact on the rate includes the effects of COVID 19 and Executive Orders issued by the Governor. March 2020 through June 2020 (at the time of this reporting) was under various levels of stay at home orders interfering with the ability for individuals to receive non-essential life sustaining services. Contributing factors include limited transportation issues, limited access to laboratories, and physician offices. This has affected all individuals in which we serve, with a significant effect on those that are elderly and/or have compromised immune systems. It is unknown at this time the impact this has had and will have going forward on the ability to obtain the required lab work for this measure.

Impact Analysis Baseline to Remeasurement Year 2

MSHN through the Regional Medical Directors and the Quality Improvement Council have identified factors that have affected the results during 1.1.2020-12.31.2020.

- MSHN is dependent on the data provided by MDHHS through Care Connect 360 and processed by ICDP. Any system errors or issues related to the attribution of a record to a designated CMHSP at the State level may impact the results.
- Claims that have not been submitted via Medicaid and lab work completed but not billed separately are not included in the Care Connect 360 data. Medical record review to confirm completion or coordination with the Primary Care Physician is required to

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

obtain health information. Attachment 1 demonstrates the percentage of individuals with both Medicaid and Medicare. A comparison will be completed to the Michigan Medicaid data from 2019 and/or 2020 based on the availability of data.

- Effects of COVID 19 and Executive Orders / Epidemic Orders issued by the Governor and/or the Michigan Department of Health and Human Services. Michigan has been under various levels of stay at home orders interfering with the ability for individuals to receive non-essential life sustaining services. (limited transportation, limited access to laboratories and physician offices)
    - 3.24.2020 Executive Order 2020-21-Suspension of all non-essential activities.
    - Actions for Non-Emergency Medical Transportation Provided During Covid 19
    - 10.14.2020 MIOSHA Emergency Rules
    - 4.13.2020- Long Acting Injectables and Antipsychotic Medications
- The number of claims submitted to support this measure have decreased since March 2020 (onset of the Executive Orders – Shelter in Place). The number of telehealth services have increased; however, this has minimum impact on the positive results of this measure. The two areas that have affected the rate of this measures include the closure of laboratories and closure and/or limitations of public transportation.

Attachment 4 MSHN Claims Utilization

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

There are no factors identified that threaten the internal or external validity of the findings.

Baseline to Remeasurement 2:

Change in PIHP Performance Compared to Baseline.

To compare the monitoring rates of the PIHP between 2018 and 2020, we conducted a two-sample test of proportions. The rate of monitoring in thePIHP's 2020 sample is higher (49.2%) than the rate in the 2018 sample (33.6%), demonstrating a 15.6 percentage point improvement from the 2020 sample over the Baseline (2018) sample. The difference is statistically significant, with P-value < .0001. A 95% confidence interval for the difference in rate ranges from -20.6 to -10.7 percentage points. (Attachment 7 Final PIP Calculation)

Change in PIHP Performance Compared to Remeasurement 1.
To compare the screening rates of the PIHP between 2019 and 2020, we conducted a two-sample test of proportions. The rate of screening in thePIHP's 2020 sample is higher (49.2%) than the rate in the 2019 sample (36.1%), demonstrating a 13.1 percentage point (or 44.6 percent) improvement from the 2020 sample over the Remeasurement 1 (2019) sample. The difference is statistically significant, with P-value < .0001. A 95% confidence interval for the difference in rate ranges from 8.1 to 18.1 percentage points.

Comparison of PIHP Monitoring Rates with Benchmark Rates. The result of a two-proportion test for 2020 data show that there is a significant

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

difference (P-value of 4.44×10^{-16}) between the screening rate for MSHN PIHP at 49.2% and the statewide health plans HEDIS rate at 68.3%. A 95% confidence interval gives the difference as being in the range of 14.9 and 23.4 percentage points.

Rates for PIHP monitoring are lower than the benchmark rates at a statistically significant level. This may be in part to the impact of the individuals with dual coverage (Medicaid/Medicare). If MSHN were to exclude those with dual coverage the baseline rate for 2020 would be 65.1% compared to the 2020 Michigan HEDIS results of 68.3%. There is not a statistically significant difference between the two samples with a P-value 0.2957 and 95% confidence internal ranging from -2.9 to 9.3 percentage points.

Change in Benchmark Performance Compared to Previous Year. Earlier we noted that PIHP providers made gains in 2020 over the prior year, 13.1 percentage points, where 95% confidence estimates ranging from 8.1 to 18.1 percentage points over 2019 performance. If we conduct a two sample proportion test between HEDIS rates from 2019 to 2020, we see a decrease 3.2 percentage points, where the 95% confidence estimate for the change of overall screening rate for provider groups in the HEDIS Aggregate Report ranges from being down 0.4% to being up 4.8% from 2019 to 2020. Demonstrating that the PIHP made improvements while the HEDIS performance decreased.

Attachment 5 MII2020_HEDIS_Aggregate_Report
Attachment 6 MI2019_HEDIS-Aggregate_Report

Step 7: Data Analysis and Interpretation of Study Results. Clearly document the results for each of the study indicator(s). Describe the data analysis performed and the results of the statistical analysis, and interpret the results. Through data analysis and interpretation, real improvement as well as sustained improvement can be determined.

The data analysis and interpretation of study indicator results should include the following for each measurement period:

- Data presented clearly, accurately, and consistently in both table and narrative format.
- A clear and comprehensive narrative description of the data analysis process, including a comparison of the results to the goal and the type of statistical test completed. Statistical testing *p* value results should be calculated and reported to four decimal places (e.g., 0.0235).
- Discussion of any random, year-to-year variations; population changes; sampling errors; or statistically significant increases or decreases that occurred during the remeasurement process.
- A statement indicating whether or not factors that could threaten (a) the validity of the findings for each measurement period and/or (b) the comparability of measurement periods were identified. If there were no factors identified, this should be documented in Step VII.

Baseline to Remeasurement 3:

Baseline to Final Remeasurement:

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Please describe the process used to identify barriers and develop corresponding interventions. Include the team/committee/group that conducted the causal/barrier analysis and the QI tools used to identify barriers, such as data mining, key driver diagram, fishbone diagram, process-level data, etc. Describe the process used to prioritize the barriers and designate high-priority barriers. Lastly, describe the process used to evaluate the effectiveness of each intervention. The documentation should be dated to identify when steps in the ongoing quality improvement process were initiated and revisited.

Describe the causal/barrier analysis process, quality improvement team consumers, and quality improvement tools:

The PIHP utilized the regional Quality Improvement Council and the regional Medical Directors group to identify region wide barriers to receiving an LDL-C and an HbA1c test as well as causal factors and interventions to overcome the barriers. The process used for the causal/barrier analysis was brainstorming and the completion of a Fishbone Diagram.
Each CMHSP reviewed their local baseline data and provided feedback regarding barriers to the PIHP using their local quality improvement process. The barriers identified and reviewed using a Fishbone Diagram. Strike through indicates the removal of a barrier. The barriers were re prioritized based on the effectiveness / impact of the intervention on the outcome.

Attachment 1 Mid-State Health Network Fishbone Diagram-Diabetes Monitoring

Describe the processes, tools, and/or data analysis results used to identify and prioritize barriers:

The PIHP utilized the Quality Improvement Council and regional Medical Directors group to identify and review the region wide barriers and causal factors. The barriers were prioritized based on the effort of and relevance to each CMHSP and potential impact on the outcome.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Describe the processes and measures used to evaluate the effectiveness of each intervention: The interventions will be evaluated using the following methods:

Intervention 1: Develop and provide a brief explanation document to the Primary Care Physicians and the CMHSP clinicians of when Protected Health Information (PHI) can be shared for the purposes of coordination of care, treatment and payment. Additionally, the MSHN Medical Director will provide education related to when Protected Health Information can be shared for the purposes of coordination of care, treatment and payment to the joint group of Medical Directors and Primary Care Physicians.

Evaluation of Effectiveness: The CMHSPs will track the number of physician offices that have received the brief explanation document ofwhen PHI can be shared for the purposes of coordination of care, treatment and payment, and as a result have begun to share information and/or coordinate care.

Intervention 2: Implement process to improve transportation availability. This will include developing an information sheet to provide consumers at the time of their appointment with instructions for accessing transportation through what is available in each CMHSPs geographical location. This may vary by location but should include any of the following: list of vendors, process for scheduling transportation with the Department of Human Services, provision of bus tokens and/or vouchers, other transportation services based on each specific location.

Evaluation of Effectiveness: The PIHP will track the number of CMHSPs who have provided transportation information to their consumers. MSHN will identify via ICDP who has completed the lab work as ordered. The number of HbA1c and LDL-C claims will increase.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Intervention 3: Implement process for labs services to be obtained onsite at the CMHSP location. This may include mobile lab, trained medical staff, on-site lab draw station.

Evaluation of Effectiveness: The CMHSPs will track the number of labs that have been completed utilizing the onsite lab option. The number of HbA1c and LDL-C will increase.

Intervention 4: CMHSP will utilize the care alerts to determine who does not have a claim for a completed lab. A record review is completed to identify if lab was ordered. If ordered is it in the record or can it be obtained. If the results are in the record and a claim was submitted to Medicare the CMHSP can enter "addressed" into ICDP.

Evaluation of Effectiveness: The CMHSPs will complete a record review of the individuals identified with an open care alert, indicating that a claim has not been submitted for a HbA1c and LDL-C. The CMHSP will indicate "addressed" within ICDP, for those individuals that have a lab result for the HbA1c and LDL-C present in the record. ICDP Report will indicate that claims have been "addressed" and primary source verification will occur during the delegated managed care review as needed to verify.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

(New Effective Measurement Period 2 Intervention 5: Develop and implement a process of data validation quarterly to ensure the data received from the Care Connect360 extract and processed by Zenith Technologies in the Integrated Care Data Platform is consistent with the HEDIS specifications and is completed within the expected timeframes.

Evaluation of Effectiveness: Data Validation will occur four times during the calendar year. The results will conclude the data is valid based on the HEDIS specifications. The data will be available, providing updates 1 time per quarter. Any issues will be logged with a process for improvement identified.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Barriers/Interventions Table:

Use the table below to list barriers, corresponding intervention descriptions, intervention type, target population, and implementation date. For each intervention, select if the intervention was (1) new, continued, or revised, and (2) consumer, provider, or system. Update the table as interventions are added, discontinued, or revised.

Date Implemented (MM/YY)	Select if Continued, New, or Revised	Select if Consumer, Provider, or System Intervention	Priority Ranking	Barrier	Intervention That Addresses the Barrier Listed in the Previous Column
1/1/2019	Discontinued	Provider Intervention		Lack of Coordination occurring between the Primary Care Physician and the CMHSP-No process in place to communicate.	1. Develop and provide a brief explanation document to the Primary Care Physicians and the CMHSP clinicians of when Protected Health Information (PHI) can be shared for the purposes of coordination of care, treatment and payment. Additionally, the MSHN Medical

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

					Director will provide education related to when Protected Health Information can be shared for the purposes of coordination of care, treatment and payment to the joint group of Medical Directors and Primary Care Physicians.
1/1/2019	Continue March 2020 Continue with revisions.	System Intervention	3	Access to labs. March of 2020- Epidemic/Emergency orders implemented limiting/discontinuing public transportation, non-essential treatments, contact with individuals outside of your household. (see epidemic/emergency orders. Orders)	2. Implement process to improve transportation availability. This will include developing an information sheet to provide consumers at the time of their appointment with instructions for accessing transportation through what is available in each CMHSPs geographical location. This may vary by location but should include any of the following: list of vendors,

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

					process for scheduling transportation with the Department of Human Services, provision of bus tokens and/or vouchers, other transportation services based on each specific location. Revision-Case by case based on need, until organizations / services open safely, and public transportation is reinstated. open and services
1/1/2019	Continue Discontinue March 2020	System Intervention	4	Access to labs	3. Implement process for labs services to be obtained onsite at the CMHSP location. This may include mobile lab, trained medical staff, on-site lab draw station.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

1/1/2019	Continue	System Intervention	1	Information of completed labs not available.	4. CMHSP will utilize the care alerts to determine who does not have a claim for a completed lab. A record review is completed to identify if lab was ordered. If ordered is it in the record or can it be obtained. If the results are in the record and a claim was submitted to Medicare the CMHSP can enter "addressed" into ICDP.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

4/2020	New Continue with revisions	System Intervention	2	Data inaccurate and untimely.	1. Develop and implement a process of data validation quarterly to ensure the data received from the Care Connect 360 extract and processed by Zenith Technologies in the Integrated Care Data Platform is consistent with the HEDIS specifications and is completed within the expected timeframes. Decrease data validations to annual.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Report the evaluation results for each intervention and describe the steps taken based on the evaluation results. Was each intervention successful? How were successful interventions continued or implemented on a larger scale? How were less-successful interventions revised or discontinued?

Describe evaluation results for each intervention:

Describe next steps for each intervention based on evaluation results:

Intervention 1: Develop and provide a brief explanation document to the Primary Care Physicians and the CMHSP clinicians of when Protected Health Information (PHI) can be shared for the purposes of coordination of care, treatment and payment. Additionally, the MSHN Medical Director will provide education related to when Protected Health Information can be shared for the purposes of coordination of care, treatment and payment to the joint group of Medical Directors and Primary Care Physicians.

Evaluation of Effectiveness: The CMHSPs will track the number of physician offices that have received the brief explanation document of when PHI can be shared for the purposes of coordination of care, treatment and payment, and as a result have begun to share information and/or coordinate care.

Measurement Period 1

Analysis: Each CMHSP has developed a brief explanation document, continuity of care document, and/or a direct feed into the medical records to be shared for the purposes of coordination of care, treatment, and payment. This has resulted in increased coordination. As a result, all the CMHSPs report that coordination with the Primary Care Physician is no longer a barrier.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis. **This step should include the following:** • Processes used to identify barriers/interventions. • Processes used to prioritize barriers. • Prioritized list of barriers with corresponding interventions. • Processes used to evaluate the effectiveness each intervention and the evaluation results. • For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.
This intervention will be discontinued.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Intervention 2: Implement process to improve transportation availability. This will include developing an information sheet to provide consumers at the time of their appointment with instructions for accessing transportation through what is available in each CMHSPs geographical location. This may vary by location but should include any of the following: list of vendors, process for scheduling transportation with the Department of Human Services, provision of bus tokens and/or vouchers, other transportation services based on each specific location.

Evaluation of Effectiveness: The PIHP will track the number of CMHSPs who have provided transportation information to consumers. MSHN will identify via ICDP who has completed the lab work as ordered. The number of HbA1c and LDL-C claims will increase.

Measurement Period 1

Analysis: Each CMHSP has provided information of options for transportation and education for individuals in their organization. The number of individuals who have had a claim for the HbA1c and the LDL-C has increased for 5 of the 12 CMHSPs. There is evidence of this intervention being effective based on the increase in claims for 42% of the CMHSPs.

This intervention will continue.

Measurement Period 2

Analysis: The public transportation was suspended throughout the region beginning March 2020, continuing operations at varied times throughout the region as a result of the epidemic/emergency orders. See Epidemic, Executive, and Emergency Rules listed above. Transportation information was not provided to consumers when in office services were suspended. The intervention was revised to

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

include assistance with transportation on a case-by-case basis when needed.

This intervention will continue with revisions. Revisions-Case by case based on need, until organizations / services open safely, and public transportation is reinstated. open and services.

Intervention 3: Implement process for lab services to be obtained onsite at the CMHSP location. This may include mobile lab, trained medical staff, on-site lab draw station.
Evaluation of Effectiveness: The CMHSPs will track the number of labs that have been completed utilizing the onsite lab option. The number of HbA1c and LDL-C will increase.

Measurement Period 1
Analysis: Two CMHSPs offer an onsite lab Monday through Friday. Of these both experienced an increase in labs received. Four CMHSPs offer an onsite lab limited days of the week. None of these CMHSPs have currently experienced an increase in completed labs. Six CMHSPs do not currently offer a lab on site as a result of previous low utilization and lab available nearby. Of the six, one CMHSP did demonstrate an increase in the individuals who received a lab.
This intervention will continue.

Measurement Period 2
Analysis: Organizations developed alternative methods of operations to be consistent with the epidemic orders.
The Essential Service only order was issued March 24, 2020 (Executive Order 2020-21). Six organizations provided onsite or mobile laboratories beginning in 2019 through January of 2020. Onsite laboratories, including mobile laboratories, were discontinued in March 2020.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Additional barriers identified include, however, not limited to the following: physical illness, quarantined staff and quarantined individuals served. See the Epidemic, Executive, and Emergency Rules listed above.

Intervention 3 was discontinued March 2020 and will be evaluated for reinstatement in FY22 as communities safely open consistent with local health department guidance.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Intervention 4: CMHSP will utilize the care alerts to determine who does not have a claim for a completed lab. A record review is completed to identify if lab was ordered. If ordered is it in the record or can it be obtained. If the results are in the record and a claim was submitted to Medicare the CMHSP can enter "addressed" into ICDP.

Evaluation of Effectiveness: The CMHSPs will complete a record review of the individuals identified with an open care alert, indicating that a claim has not been submitted for a HbA1c and LDL-C. The CMHSP will indicate "addressed" within ICDP, for those individuals that have a lab result for the HbA1c and LDL-C present in the record. ICDP Report will indicate that claims have been "addressed" and primary source verification will occur during the delegated managed care review as needed to verify.

Measurement Period 1

Analysis: Eight CMHSPs have a process to review the care alerts from ICDP and follow up to ensure that each individual is marked with an "addressed" as appropriate. Addressed is marked in ICDP when a lab is located in the medical record in absence of a claim. This may occur for those individuals who have a primary insurance in addition to Medicaid, and Medicaid does not pay for the lab work. Four CMHSPs do not have a current process in place to review the ICDP Care Alerts. Each of the four are in progress for developing an effective system.

This intervention will be continued.

Measurement Period 2

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Analysis: The number of CMHSPs with a process for staff to complete care alerts increased from 8 to 12 during measurement period 2. Care alerts trigger a follow up action to ensure the required labs are ordered and/or a copy is reviewed/obtained for the medical record. Those marked "addressed" are records that indicated the required testing had not been received through submitted claim in ICDP/CC360, however documentation of the required lab results was located in the medical record. The primary reason for this is the service was billed to Medicare for those individuals who have dual coverage of Medicaid/Medicare. Sixty percent of the eligible population include individuals with dual coverage (Medicare /Medicaid). Seventy-three percent (241) of those not screened had dual coverage ((Medicare /Medicaid). The results of the lab work are dependent on the ability to receive the required evidence of the completed lab work from the physician offices, therefore promoting increased coordination among providers. Without a record review 120 individuals would have not been reported as receiving the required tests for inclusion in the numerator.

	"Addressed"	*Required Claims Present*	**Total received the required testing**	**No testing received**	**Grand Total**
Medicare/Medicaid	*117*	*36*	**153**	**241**	**394**
Medicaid Only	*3*	*165*	**168**	**90**	**258**
MSHN	*120*	*201*	**321**	331	**652**

Intervention 4 was effective and will continue with no revisions.

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

(New) Intervention 5: Develop and implement a process of data validation quarterly to ensure the data received from the Care Connect 360 extract and processed by Zenith Technologies in the Integrated Care Data Platform is consistent with the HEDIS specifications and is completed within the expected timeframes.

Evaluation of Effectiveness: Data Validation will occur four times during the calendar year. The results will conclude the data is valid based on the HEDIS specifications. The data will be available, providing updates 1 time per quarter. Any issues will be logged with a process for improvement identified.

Measurement Period 2:
Analysis: Data Validation Occurred two times during the measurement period.
The data processed through ICDP was matched against the specifications within the PIP, any mismatches would be investigated to determine the cause. Actions would then be identified to address areas that would potentially threaten the validity of the project.

December 2020 Valid-Consistent with the PIHP/HEDIS specifications
April 2021 Valid-Consistent with the PIP/HEDIS specifications

Step 8: Improvement Strategies (interventions for improvement as a result of analysis). Interventions are developed to address causes/barriers identified through a continuous cycle of data measurement and data analysis.

This step should include the following:

- Processes used to identify barriers/interventions.
- Processes used to prioritize barriers.
- Prioritized list of barriers with corresponding interventions.
- Processes used to evaluate the effectiveness each intervention and the evaluation results.
- For remeasurement periods, how evaluation and analysis results guided continuation, revision, or discontinuation of interventions.

Validation	Mismatches Identified	Causal Factors	Actions Taken	Did results affect the Validity of the Project
Data through 8/30/2020	25/840 records had mismatched CMHSP attributions. 97% accuracy rate	The attribution file for the CMHSPs is based on the current open record and not the record open at the time of the submitted claim.	Each mismatch is reviewed to determine the actual CMHSP that are responsible for the record. Communication occurs with the CMHSP as needed.	No, does not affect the validity of the project for the Region.
Data through 12/31/2020	12/652 records had mismatched CMHSP attributions. 98% accuracy rate	The attribution file for the CMHSPs is based on the current open record and not the record open at the time of the submitted claim.	Each mismatch is reviewed to determine the actual CMHSP that are responsible for the record. Communication occurs with the CMHSP as needed.	No, does not affect the validity of the project for the Region.

Intervention 5 will continue, with revisions of 1 time annually.