Colorado Children's Health Insurance Program

Fiscal Year 2017–2018 PIP Validation Report

CHP+ Members with Asthma Transitioning Out of Plan Coverage

for

Rocky Mountain Health Plans

April 2018

For Validation Year 4

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

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Acknowledgements and Copyrights

1. Background

The Balanced Budget Act of 1997 (BBA), Public Law 105-33, requires that states conduct an annual evaluation of their managed care organizations (MCOs) and prepaid inpatient health plans (PIHPs) to determine the MCOs' and PIHPs' compliance with federal regulations and quality improvement standards. According to the BBA, the quality of health care delivered to Medicaid members in MCOs and PIHPs must be tracked, analyzed, and reported annually. The Colorado Department of Health Care Policy & Financing (the Department) has contractual requirements with each MCO, and behavioral health organization (HMO) to conduct and submit performance improvement projects (PIPs) annually.

In preparation for implementation of Public Law 111-3, The Children's Health Insurance Program Reauthorization Act of 2009, the State of Colorado required each contractor with the Colorado Child Health Plan *Plus* (CHP+) health insurance program to conduct and submit PIP reports annually. CHP+ is Colorado's implementation of the Children's Health Insurance Program (CHIP), a health maintenance organization (HMO) jointly financed by federal and state governments and administered by the states. Originally created in 1997, CHIP targets uninsured children in families with incomes too high to qualify for Medicaid programs, but often too low to afford private coverage.

As one of the mandatory external quality review activities under the BBA, the Department is required to validate the PIPs. To meet this validation requirement, the Department contracted with Health Services Advisory Group, Inc. (HSAG), as the external quality review organization. The primary objective of the PIP validation is to determine compliance with requirements set forth in the Code of Federal Regulations (CFR) at 42 CFR §438.330(d), including:

- Measurement of performance using objective quality indicators.
- Implementation of system interventions to achieve improvement in quality.
- Evaluation of the effectiveness of the interventions.
- Planning and initiation of activities to increase or sustain improvement.

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]

[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/medicaid-managed-care/external-quality-review/index.html. Accessed on: Jul 18, 2017.

HSAG evaluates the following components of the quality improvement process:

1. The technical structure of the PIPs to ensure the health plan designed, conducted, and reported PIPs using sound methodology consistent with the CMS protocol for conducting PIPs. HSAG's review determined whether a PIP could reliably measure outcomes. Successful execution of this component ensures that reported PIP results are accurate and capable of measuring real and sustained improvement.
2. The outcomes of the PIPs. Once designed, a PIP's effectiveness in improving outcomes depends on the systematic identification of barriers and the subsequent development of relevant interventions. Evaluation of each PIP's outcomes determined whether the health plan improved its rates through the implementation of effective processes (i.e., barrier analyses, intervention design, and evaluation of results) and, through these processes, achieved statistically significant improvement over the baseline rate. Once statistically significant improvement is achieved across all study indicators, HSAG evaluates whether the health plan was successful in sustaining the improvement. The goal of HSAG's PIP validation is to ensure that the Department and key stakeholders can have confidence that reported improvement in study indicator outcomes is supported by statistically significant change and the health plan's improvement strategies.

PIP Rationale

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

For fiscal year (FY) 2017–2018, **Rocky Mountain Health Plans** (**RMHP**) continued its ***CHP+ Members with Asthma Transitioning Out of Plan Coverage*** for its PIP. The topic selected addressed CMS' requirements related to quality outcomes—specifically, the timeliness of, and access to, care and services.

PIP Summary

For this FY 2017–2018 validation cycle, the PIP received an overall validation score of 90 percent and a *Not Met* validation status. The focus of this PIP is to improve the transition of care process for members with asthma who will be aging out of the CHP+ plan. The PIP had one study question that **RMHP** stated: "Does targeted member outreach to CHP+ members who turn 19 during the measurement year and have a special needs condition of asthma result in an increase in the percentage of those members who have at least one visit with a primary care provider (PCP) during the 12 months prior to again out of the program?" The following table describes the study indicator for this PIP.

Table 1–1—Study Indicator

PIP Topic	Study Indicator
CHP+ Members with Asthma Transitioning Out of Plan Coverage	The percentage of CHP+ members with asthma who turn 19 years of age during the measurement year who have at least one visit with a primary care provider during the measurement year prior to, and within 12 months of, transitioning out of the CHP+ program.

Validation Overview

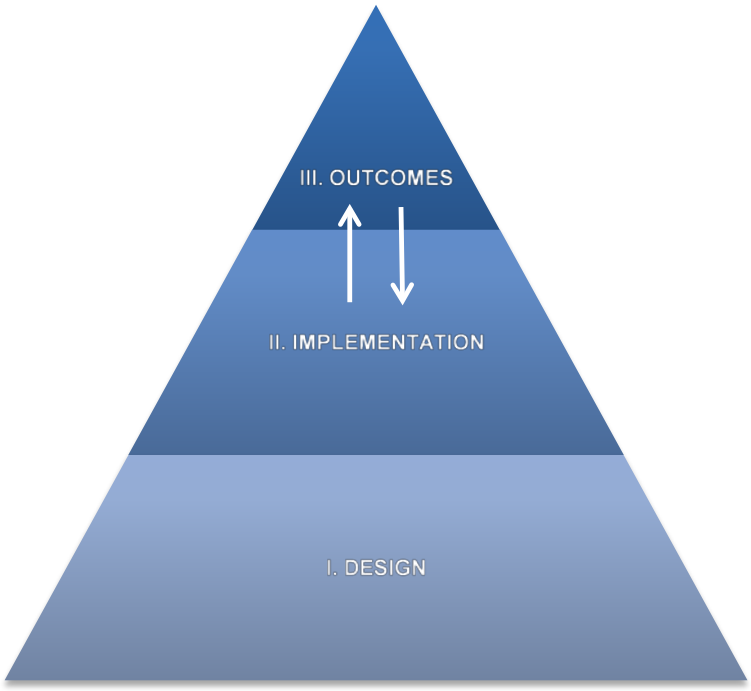
HSAG obtained the information needed to conduct the PIP validation from **RMHP**'s PIP Summary Form. This form provided detailed information about the health plan's PIP related to the activities completed and HSAG evaluated for the FY 2017–2018 validation cycle.

Each required activity was evaluated on one or more elements that form a valid PIP. The HSAG PIP Review Team scored each evaluation element within a given activity as *Met*, *Partially Met*, *Not Met*, *Not Applicable*, or *Not Assessed (NA)*. HSAG designated some of the evaluation elements pivotal to the PIP process as critical elements. For a PIP to produce valid and reliable results, all critical elements had to be *Met*. Given the importance of critical elements to the scoring methodology, any critical element that received a *Not Met* score resulted in an overall validation rating for the PIP of *Not Met*. A health plan 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 provided a *Point of Clarification* 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 gave each PIP an overall percentage score for all evaluation elements (including critical elements). HSAG calculated 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 calculated 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*.

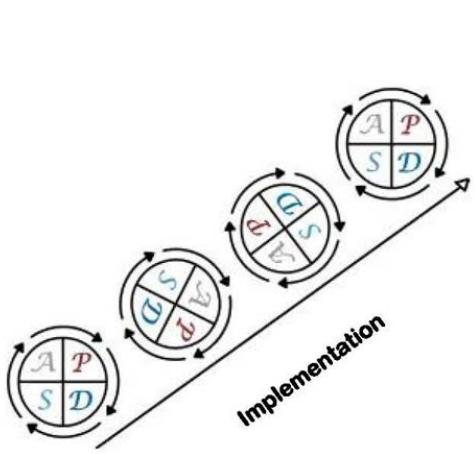
Figure 1–1 illustrates the three study stages of the PIP process—i.e., Design, Implementation, and Outcomes. Each sequential stage provides the foundation for the next stage. The Design stage establishes the methodological framework for the PIP. The activities in this section include development of the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

Figure 1–1—PIP Stages



Once **RMHP** establishes its study design, the PIP process moves into the Implementation stage. This stage includes data analysis and interventions. During this stage, the health plans analyze data, identify barriers to performance, and develop interventions targeted to improve outcomes. The health plans should incorporate a continuous or rapid cycle improvement model such as the Plan-Do-Study-Act (PDSA) to determine the effectiveness of the implemented interventions. The implementation of effective improvement strategies is necessary to improve PIP outcomes.

Figure 1–2—PIP Stages Incorporating the PDSA Cycle



The PDSA cycle includes the following actions:

- **P**lan—conduct barrier analyses; prioritize barriers; develop targeted intervention(s) to address barriers; and develop an intervention evaluation plan for each intervention
- **D**o—implement intervention; track and monitor the intervention; and record the data
- **S**tudy—analyze the data; compare results; and evaluate the intervention's effectiveness
- **A**ct—based on the evaluation results, standardize, modify, or discontinue the intervention

The final stage is Outcomes, which involves the evaluation of real and sustained improvement based on reported results and statistical testing. Sustained improvement is achieved when outcomes exhibit statistical improvement over time and multiple measurements. This stage is the culmination of the previous two stages. The health plan should regularly evaluate interventions to ensure they are having the desired effect. A concurrent review of the data is encouraged. If the health plan's evaluation of the interventions, and/or review of the data, indicates that the interventions are not having the desired effect, the health plan should revisit its causal/barrier analysis process; verify the proper barriers are being addressed; and discontinue, revise, or implement new interventions as needed. This cyclical process should be used throughout the duration of the PIP and revisited as often as needed.

2. Findings

This year, the PIP validation process evaluated the technical methods of the PIP (i.e., the study design), as well as the implementation of quality improvement activities. Based on its technical review, HSAG determined the overall methodological validity of the PIP.

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 health plan's update of a previously submitted PIP with modified/additional documentation.

The health plans have the opportunity to resubmit the PIP after HSAG's initial validation to address any deficiencies identified. The PIP received a *Met* score for 90 percent of the applicable evaluation elements and received a *Not Met* overall validation status when originally submitted. Because the *Not Met* validation status was related to study indicator outcomes, the validation score did not change with the health plan's resubmission. In the resubmission, the health plan addressed all HSAG's feedback through the *Points of Clarification*.

Table 2–1—FY 2017–2018 Performance Improvement Project Validation for Rocky Mountain Health Plans

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]
CHP+ Members with Asthma Transitioning Out of Plan Coverage	Submission	90%	82%	*Not Met*
	Resubmission	90%	82%	*Not Met*

[1] **Type of Review**—Designates the PIP review as an annual submission, or resubmission. A resubmission means the health plan 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.

Validation Findings

Table 2–2 displays the validation results for the **RMHP** PIP validated during FY 2017–2018. This table illustrates the health plan's overall application of the PIP process and achieved success in implementing the studies. Each activity 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 activity. Additionally, HSAG calculated a score for each stage and an overall score across all activities. This was the fourth validation year for the PIP with HSAG validating Activities I through IX.

Table 2–2—Performance Improvement Project Validation Results for Rocky Mountain Health Plans

Stage	Activity		Percentage of Applicable Elements*		
			Met	*Partially Met*	*Not Met*
Design	I.	Appropriate Study Topic	100% (2/2)	0% (0/2)	0% (0/2)
	II.	Clearly Defined, Answerable Study Question(s)	100% (1/1)	0% (0/1)	0% (0/1)
	III.	Correctly Identified Study Population	100% (1/1)	0% (0/1)	0% (0/1)
	IV.	Clearly Defined Study Indicator(s)	100% (2/2)	0% (0/2)	0% (0/2)
	V.	Valid Sampling Techniques (if sampling was used)	*Not Applicable*	*Not Applicable*	*Not Applicable*
	VI.	Accurate/Complete Data Collection	100% (3/3)	0% (0/3)	0% (0/3)
Design Total			**100% (9/9)**	**0% (0/9)**	**0% (0/9)**
Implementation	VII.	Sufficient Data Analysis and Interpretation	100% (3/3)	0% (0/3)	0% (0/3)
	VIII.	Appropriate Improvement Strategies	100% (6/6)	0% (0/6)	0% (0/6)
Implementation Total			**100% (9/9)**	**0% (0/9)**	**0% (0/9)**
Outcomes	IX.	Real Improvement Achieved	33% (1/3)	0% (0/3)	67% (2/3)
	X.	Sustained Improvement Achieved	*Not Assessed*	*Not Assessed*	*Not Assessed*
Outcomes Total			**33% (1/3)**	**0% (0/3)**	**67% (2/3)**
Percentage Score of Applicable Evaluation Elements *Met*			**90% (19/21)**	**0% (0/21)**	**10% (2/21)**

Overall, 90 percent of all applicable evaluation elements validated received a score of *Met*.

Design

RMHP designed a scientifically sound project supported by the use of key research principles. The technical design of the PIP was sufficient to measure outcomes, allowing for successful progression to the next stage of the PIP process.

Implementation

RMHP reported and interpreted its second remeasurement data accurately. The health plan completed a causal/barrier analysis, prioritized the identified barriers, and implemented interventions that were logically linked to the barriers and had the potential to impact study indicator outcomes.

Outcomes

The study indicator results demonstrated improvement over the baseline; however, this improvement has not been statistically significant after two remeasurement periods. In addition, the health plan has not been able to achieve its goals. The lack of statistically significant improvement resulted in the overall *Not Met* validation status.

Analysis of Results

Table 2–3 displays Remeasurement 2 data for **RMHP**'s ***CHP+ Members with Asthma Transitioning Out of Plan Coverage*** PIP. **RMHP**'s goal at Remeasurement 2 was to increase the percentage of CHP+ members with asthma who turned 19 years of age during the measurement year and had at least one visit with a primary care provider to 82.6 percent.

Table 2–3—Performance Improvement Project Outcomes for Colorado Access

PIP Study Indicator	Baseline Period (1/1/2014–12/31/2014)	Remeasurement 1 (1/1/2015–12/31/2015)	Remeasurement 2 (1/1/2016–12/31/2016)	Sustained Improvement
The percentage of CHP+ members with asthma who turn 19 years of age during the measurement year who have at least one visit with a primary care provider.	51.7%	75.0%	73.9%	*Not Assessed*

RMHP re-ran its baseline data, and the updated baseline rate was 51.7 percent for CHP+ members with asthma who turned 19 years of age during the measurement year and had at least one visit with a primary care provider. The first remeasurement goal was set as a 20 percent increase over baseline.

For Remeasurement 1, the rate increased to 75.0 percent. This was a non-statistically significant increase as evidenced by the *p* value of 0.1393. The health plan exceeded its goal of increasing the rate of CHP+ members with asthma who turned 19 years of age during the measurement year and had at least one visit with a primary care provider by 10 percent.

For Remeasurement 2, the rate of 73.9 percent was a slight decline over Remeasurement 1; however, there was still improvement over the baseline. The improvement over baseline was not statistically significant as evidenced by the *p* value of 0.1523. The health plan did not achieve its goal of 82.6 percent.

Barriers/Interventions

The identification of barriers through barrier analysis and the subsequent selection of appropriate interventions to address these barriers are necessary steps to improve outcomes. The health plan's choice of interventions, combination of intervention types, and sequence of implementing the interventions are essential to the health plan's overall success in improving PIP rates.

For the ***CHP+ Members with Asthma Transitioning Out of Plan Coverage*** PIP, **RMHP** identified and ranked the following barriers:

- Difficulty reaching members by telephone.
- Lack of a tracking mechanism to identify the effectiveness of outreach.
- The member needs a reminder regarding the importance of well visits.
- The member needs education about managing his or her own condition during and after transition from the CHP+ program.
- Inability to communicate with the member due to a language barrier.
- Unable to answer questions asked by a member's parent regarding coverage.

To address these barriers, **RMHP** implemented the following interventions:

- Customer service staff call members and provide a warm transfer to the provider's office to schedule a visit immediately.
- Customer service staff call members and answer questions about coverage.
- Telephone outreach is made to the parent or guardian of the member in the targeted population to discuss the transition out of the CHP+ program and the importance of the primary care provider well visit.
- A letter is mailed to the parent or guardian of the member in the targeted population that includes educational material.
- Initiated member incentive for completion of primary care visit.

3. Conclusions and Recommendations

Conclusions

Despite the lack of statistically significant improvement, **RMHP** designed a methodologically sound project. The sound study design allowed the health plan to progress to the collection of data and the implementation of interventions. **RMHP** accurately reported and summarized the second remeasurement study indicator results, and used appropriate quality improvement tools to identify and prioritize barriers. The interventions developed and implemented were logically linked to the barriers and have the potential to impact study indicator outcomes.

Recommendations

HSAG recommends the following:

- **RMHP** should regularly revisit its causal/barrier analysis and quality improvement processes to reevaluate barriers and consider new innovative impactful interventions.
- **RMHP** should consider using a failure modes effects analysis (FMEA) to isolate barriers that may not have been previously identified. This quality improvement tool works well with the process map that the health plan is completing.
- **RMHP** should continue to conduct ongoing evaluations of each intervention and make data-driven decisions regarding revising, continuing, or discontinuing interventions.