Colorado Children's Health Insurance Program

Fiscal Year 2022–2023 PIP Validation Report

for

Denver Health Medical Plan, Inc.

April 2023

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

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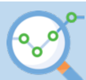
1. Executive Summary

The Code of Federal Regulations at 42 CFR Part 438—managed care regulations for the Medicaid program and Children's Health Insurance Program (CHIP), with revisions released May 6, 2016, effective July 1, 2017, and further revised on November 13, 2020, with an effective date of December 14, 2020—require states that contract with managed care health plans (health plans) to conduct an external quality review (EQR) of each contracting health plan. Health plans include managed care organizations (MCOs), prepaid inpatient health plans (PIHPs), primary care case management entities (PCCM entities), and prepaid ambulatory health plans (PAHPs). The regulations at 42 CFR §438.350 require that the EQR include analysis and evaluation by an external quality review organization (EQRO) of aggregated information related to healthcare quality, timeliness, and access. Health Services Advisory Group, Inc., (HSAG) serves as the EQRO for the State of Colorado, Department of Health Care Policy and Financing (the Department)— the agency responsible for the overall administration and monitoring of Colorado's Medicaid managed care program and Child Health Plan *Plus* (CHP+), Colorado's program to implement CHIP managed care. The Department contracts with five CHP+ MCOs across the State.

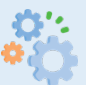
Pursuant to 42 CFR §457.1520, which requires states' CHIP managed care programs to participate in EQR, the Department required its CHP+ MCOs to conduct and submit performance improvement projects (PIPs) annually for validation by the State's EQRO. **Denver Health Medical Plan, Inc.**, referred to in this report as **DHMP**, an MCO, holds a contract with the State of Colorado for provision of medical and behavioral health (BH) services for the Department's CHP+ managed care program.

For fiscal year (FY) 2022–2023, the Department required health plans to conduct PIPs in accordance with 42 CFR §438.330(b)(1). In accordance with §438.330 (d), MCOs, PIHPs, PAHPs, and PCCM entities are required to have a quality program that (1) includes ongoing PIPs designed to have a favorable effect on health outcomes and beneficiary satisfaction and (2) focuses on clinical and/or nonclinical areas that involve the following:

 Measuring performance using objective quality indicators

Implementing system interventions to achieve improvement in quality

Evaluating effectiveness of the interventions

 Planning and initiating of activities for increasing or 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. In its PIP evaluation and validation, HSAG used the Department of Health and Human Services, Centers for Medicare & Medicaid Services

(CMS) publication, *Protocol 1. Validation of Performance Improvement Projects: A Mandatory EQR-Related Activity,* October 2019.[1-1]

In July 2014, HSAG developed a new PIP framework based on a modified version of the Model for Improvement developed by Associates in Process Improvement and modified by the Institute for Healthcare Improvement.[1-2] The redesigned PIP methodology is intended to improve processes and outcomes of healthcare by way of continuous quality improvement (QI). The redesigned framework redirects MCOs to focus on small tests of change to determine which interventions have the greatest impact and can bring about real improvement. CMS agreed that given the pace of QI science development and the prolific use of Plan-Do-Study-Act (PDSA) cycles in modern improvement projects within healthcare settings, a new approach was needed and provided HSAG with approval to use this approach in all requesting states.

PIP Components and Process

The key concepts of the rapid-cycle PIP framework include forming a PIP team, setting aims, establishing a measure, determining interventions, testing interventions, and spreading successful changes. The core component of the approach involves testing changes on a small scale—using a series of PDSA cycles and applying rapid-cycle learning principles over the course of the improvement project to adjust intervention strategies—so that improvement can occur more efficiently and lead to long-term sustainability. The duration of rapid-cycle PIPs is approximately 18 months, from the initial Module 1 submission date to the end of intervention testing.

There are four modules with an accompanying reference guide for the MCOs to use to document their PIPs. Prior to issuing each module, HSAG held module-specific trainings with the MCOs to educate them about the documentation requirements and use of specific QI tools for each of the modules. The four modules are defined below:

- **Module 1—PIP Initiation:** Module 1 outlines the framework for the project. The framework includes building a PIP team, describing the PIP topic, and narrowed focus, and providing the rationale and supporting data for the selected narrowed focus. In Module 1, the narrowed focus baseline data collection specifications and methodology are defined, and the MCO sets aims (Global and SMART), completes a key driver diagram, and sets up the SMART Aim run chart for objectively tracking progress toward improvement for the duration of the project.

[1-1] Department of Health and Human Services, Centers for Medicare & Medicaid Services. *Protocol 1. Validation of Performance Improvement Projects: A Mandatory EQR-Related Activity*, October 2019. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2019-eqr-protocols.pdf. Accessed on: Mar 16, 2023.

[1-2] Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. *The Improvement Guide: A Practical Approach to Enhancing Organizational Performance* (2nd edition). San Francisco: Jossey-Bass Publishers; 2009. Available at: http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx. Accessed on: Mar 16, 2023.

- **Module 2—Intervention Determination:** In Module 2, there is increased focus on the QI activities reasonably expected to impact the SMART Aim. The MCO updates the key driver diagram from Module 1 after completing process mapping, failure modes and effects analysis (FMEA), and failure mode priority ranking, for a more in-depth understanding of the improvement strategies that are most likely to support achievement of the SMART Aim goal.
- **Module 3—Intervention Testing:** In Module 3, the MCO defines the intervention plan for the intervention to be tested, and the intervention effectiveness measure and data collection process are defined. The MCO will test interventions using thoughtful incremental PDSA cycles and complete PDSA worksheets.
- **Module 4—PIP Conclusions:** In Module 4, the MCO summarizes key findings, compares successful and unsuccessful interventions, and reports outcomes achieved. The MCO will synthesize data collection results, information gathered, and lessons learned to document the impact of the PIP and to consider how demonstrated improvement can be shared and used as a foundation for further improvement after the project ends.

PIP Terms

SMART (Specific, Measurable, Attainable, Relevant, Time-bound) Aim directly measures the PIP's outcome by answering the following: *How much improvement, to what, for whom, and by when?*

Key Driver Diagram is a tool used to conceptualize a shared vision of the theory of change in the system. It enables the MCO's team to focus on the influences in cause-and-effect relationships in complex systems.

FMEA (Failure Modes and Effects Analysis) is a systematic, proactive method for evaluating processes that helps to identify where and how a process is failing or might fail in the future. FMEA is useful to pinpoint specific steps most likely to affect the overall process, so that interventions may have the desired impact on PIP outcomes.

PDSA (Plan-Do-Study-Act) cycle follows a systematic series of steps for gaining knowledge about how to improve a process or an outcome.

Approach to Validation

The goal of HSAG's PIP validation and scoring methodology is to ensure that the Department and key stakeholders can have confidence that the health plan executed a methodologically sound improvement project, and any reported improvement can be reasonably linked to the QI strategies and activities conducted by the health plan during the PIP. HSAG obtained the data needed to conduct the PIP validation from **DHMP**'s module submission form. In FY 2022–2023, these forms provided detailed information about **DHMP**'s PIP and the activities completed in Module 4. (See Appendix A. Module Submission Form.) Following HSAG's rapid-cycle PIP process, each health plan submitted Module 4 according to the approved timeline. HSAG provided scores and feedback and assigned a level of confidence to the PIP in the Module 4 validation tool. If a PIP received less than *High Confidence* on initial review, the health plan had an opportunity to receive technical assistance from HSAG and to complete a single Module 4 resubmission to address the initial validation findings.

Validation Scoring

During validation, HSAG determines if criteria for each module are *Met.* Any validation criteria not applicable (*N/A*) were not scored. At the completion of Module 4, HSAG uses the validation findings from modules 1 through 4 to determine a level of confidence representing the validity and reliability of the PIP. Using a standardized scoring methodology, HSAG will assign a level of confidence.

- ***High confidence*** = The PIP was methodologically sound; the SMART Aim goals, statistically significant, clinically significant, or programmatically significant improvements were achieved for both measures; at least one tested intervention for each measure could reasonably result in the demonstrated improvement; and the MCO accurately summarized the key findings and conclusions.
- ***Moderate confidence*** = The PIP was methodologically sound, at least one tested intervention could reasonably result in the demonstrated improvement, and at least one of the following occurred:

  ☐ The SMART Aim goal, statistically significant, clinically significant, or programmatically significant improvement was achieved *for only one measure,* and the MCO accurately summarized the key findings and conclusions.

  ☐ Non-statistically significant improvement in the SMART Aim measure was achieved *for at least one measure,* and the MCO accurately summarized the key findings and conclusions.

  ☐ The SMART Aim goal, statistically significant, non-statistically significant, clinically significant, or programmatically significant improvement was achieved *for at least one measure*; however, the MCO *did not* accurately summarize the key findings and conclusions.

- ***Low confidence*** = One of the following occurred:

  ☐ The PIP was methodologically sound. However, no improvement was achieved for either measure during the PIP. The SMART Aim goals *were not* met, statistically significant improvement *was not* demonstrated, non-statistically significant improvement *was not* demonstrated, significant clinical improvement *was not* demonstrated, and significant programmatic improvement *was not* demonstrated.

  ☐ The PIP was methodologically sound. The SMART Aim goal, statistically significant, non-statistically significant, clinically significant, or programmatically significant improvement was achieved *for at least one measure*; however, *none* of the tested interventions could reasonably result in the demonstrated improvement.

  ☐ The rolling 12-month data collection methodology was followed for only one of two SMART Aim measures for the duration of the PIP.

- ***No confidence*** = The SMART Aim measure methodology and/or approved rapid-cycle PIP methodology/process *was not* followed through the SMART Aim end date.

PIP Topic Selection

In FY 2022–2023, **DHMP** submitted the following PIP topic for validation: *Depression Screening and Follow-Up After a Positive Depression Screen.*

DHMP defined a Global Aim and SMART Aim for the PIP. The SMART Aim statement includes the narrowed population, the baseline rate, a set goal for the project, and the end date. HSAG provided the following parameters to the health plan for establishing the SMART Aim for the PIP:

- **S**pecific: The goal of the project: What is to be accomplished? Who will be involved or affected? Where will it take place?
- **M**easurable: The indicator to measure the goal: What measure will be used? What current data (i.e., count, percent, or rate) are available for that measure? How much increase or decrease in the indicator will demonstrate improvement?
- **A**ttainable: Rationale for setting the goal: Is the desired achievement based on a particular best practice/average score/benchmark? Is the goal attainable (not too low or too high)?
- **R**elevant: The goal addresses the problem to be improved.
- **T**ime-bound: The timeline for achieving the goal.

Table 1-1 includes the SMART Aim statements established by **DHMP**.

Table 1-1—PIP Measures and SMART Aim Statements

PIP Measures	SMART Aim Statements
Depression Screening	By June 30, 2022, use key driver diagram interventions to increase the percentage of members who received at least one depression screening annually among Denver Health CHP+ members ages 12–21 years assigned to the Westside Pediatrics PCMH [patient-centered medical home], from 62.11% to 70.18%.*
Follow-Up After a Positive Depression Screen	By June 30, 2022, use key driver diagram interventions to increase the percentage of members who completed a BH visit within 30 days of a positive depression screening OR who had documentation that they are already engaged in care with an outside BH provider among Denver Health CHP+ members ages 12–21 years assigned to the Westside Pediatrics PCMH from 55.56% to 81.48%.*

* HSAG approved revisions to the SMART Aim statements in February 2022.

2. Findings

Module 4: PIP Conclusions

In FY 2022–2023, **DHMP** continued the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP. The health plan completed Module 4, the final module of the rapid-cycle PIP process, during FY 2022–2023. HSAG reviewed the initial Module 4 submission form, provided initial feedback to the health plan, and conducted the final validation on the resubmitted Module 4 submission form.

The health plan's final Module 4 submission met all validation criteria. The PIP was methodologically sound, the PIP results demonstrated significant improvement, at least one of the interventions could reasonably result in the demonstrated improvement, and the health plan accurately summarized key findings and conclusions. Based on the validation findings, HSAG assigned the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP a level of *High Confidence*. Below are summaries of key Module 4 validation findings. Complete validation criteria, scores, and feedback from HSAG are provided in Appendix B. Module Validation Tool.

SMART Aim Measure Results

HSAG analyzed **DHMP**'s PIP data to draw conclusions about the health plan's QI efforts. Based on its review, HSAG determined the methodological validity of the PIP, and evaluated **DHMP**'s success in achieving the SMART Aim goal and in demonstrating statistically, clinically, or programmatically significant improvement.

The final SMART Aim measure results for **DHMP**'s PIP are presented in Table 2-1. HSAG used the reported SMART Aim measure data to determine whether the SMART Aim goal was achieved and whether statistically significant improvement over baseline results was demonstrated.

Table 2-1—SMART Aim Measure Results

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Statistically Significant Improvement Achieved (Y/N)
Depression Screening				
The percentage of members who received at least one depression screening annually among Denver Health CHP+ members ages 12–21 years assigned to the Westside Pediatrics PCMH.	62.11%	70.18%	75.55%	*Yes*

SMART Aim Measure	Baseline Rate	SMART Aim Goal Rate	Highest Rate Achieved	Statistically Significant Improvement Achieved (Y/N)
Follow-Up After a Positive Depression Screen				
The percentage of members who completed a BH visit within 30 days of a positive depression screening OR who had documentation that they are already engaged in care with an outside BH provider among Denver Health CHP+ members ages 12–21 years assigned to the Westside Pediatrics PCMH.	55.56%	81.48%	66.67%	*No*

To guide the project, **DHMP** established goals of increasing the percentage of members 12 through 21 years of age assigned to Westside Pediatrics PCMH who received an annual depression screening from 62.11 percent to 70.18 percent and increasing the percentage of those members who received BH services within 30 days of screening positive for depression from 55.56 percent to 81.48 percent, through the SMART Aim end date of June 30, 2022. **DHMP**'s reported SMART Aim measure results demonstrated that the *Depression Screening* goal was exceeded, with the highest rate achieved, 75.55 percent, representing a statistically significant increase of 13.44 percentage points above the baseline rate. For the *Follow-Up After a Positive Depression Screen* measure, the highest rate achieved was 66.67 percent, representing an improvement of 11.11 percentage points over the baseline rate, which was not statistically significant. The health plan's final SMART Aim run chart and SMART Aim measure data are provided in Appendix A. Module Submission Form.

Intervention Testing Results

In addition to evaluating the SMART Aim measure results, HSAG also evaluated the PIP intervention testing results for demonstrating significant clinical and programmatic improvement. In Module 4, **DHMP** completed and submitted PDSA worksheets to report final intervention testing results for the PIP. HSAG evaluated PDSA worksheet documentation for each intervention to determine whether the intervention evaluation results demonstrated significant clinical or programmatic improvement. Table 2-2 summarizes **DHMP**'s interventions described in the Module 4 PDSA worksheets, any improvement demonstrated by the intervention evaluation results, and the final status of the intervention at the end of the project.

Table 2-2—Final Intervention Testing Results

Intervention Description	Type of Improvement Demonstrated by Intervention Evaluation Results	Final Intervention Status
Expand depression screening services to all primary care acute (sick) visits in addition to well visits.	Significant *programmatic* and *clinical* improvement for *Depression Screening*	Adopted
Same-day warm handoff to in-clinic BH provider when a member screens positive for depression.	Significant *programmatic* and *clinical* improvement for *Follow-Up After a Positive Depression Screen*	Adopted

DHMP tested two provider-focused interventions for the project: One intervention focused on *Depression Screening*, and one intervention focused on *Follow-Up After a Positive Depression Screen*. For the depression screening during acute visits intervention, the health plan reported intervention testing results that demonstrated significant programmatic improvement in depression screening processes and significant clinical improvement in the percentage of members screened for depression. The health plan chose to adopt the intervention based on the promising evaluation results. For the same-day warm handoff for members with a positive depression screen intervention, the health plan reported testing results that demonstrated significant programmatic improvement in processes for follow-up BH care and significant clinical improvement in the percentage of members who received follow-up BH services within 30 days of a positive screen. The health plan adopted the intervention in response to the evaluation results.

Lessons Learned

An important part of the QI process is to consider how the information gathered and lessons learned during the PIP can be applied in future improvement efforts. **DHMP** reported successes, challenges, and lessons learned as part of the Module 4 submission.

DHMP documented the following lessons learned from the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP:

- Clinic staff participating in the project were willing to complete depression screenings at all visits, including acute (sick) visits, but shifting to a new process takes time.
- Comprehensive training on acute visit depression screening workflows is an important part of clinic staff onboarding, especially in times of high turnover.
- Regular data sharing on clinic-specific depression screening rates can foster increased emphasis on the importance of regular depression screenings and promote staff administration of depression screenings at visits, though additional improvement strategies may be necessary to achieve optimal performance improvement.
- Systemic BH capacity issues are likely to continue to inhibit improvement in the *Follow-Up After a Positive Depression Screen* measure performance until BH staffing levels, recruiting, and funding for BH staff are increased for CHP+ members.

3. Conclusions and Recommendations

Conclusions

DHMP developed a methodologically sound improvement project that met both State and federal requirements. The health plan tested two interventions using the required QI processes and tools. At the conclusion of the PIP, the health plan accurately reported results that demonstrated achievement of the SMART Aim goal, statistically significant improvement over baseline performance for the *Depression Screening* measure, and improvement over baseline performance that was not statistically significant for the *Follow-Up After a Positive Depression Screen* measure. The health plan's intervention testing results also demonstrated clinically and programmatically significant improvement linked to the tested interventions for both measures. Based on the validation findings, HSAG assigned a level of *High Confidence* to the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP.

Recommendations

HSAG has the following recommendations:

- **DHMP** should apply lessons learned and knowledge gained from its efforts and HSAG's feedback throughout the PIP to future PIPs and other QI activities.
- **DHMP** should continue improvement efforts in the PIP topic areas, and for the successful interventions, consider spreading beyond the narrowed focus. The conclusion of a project should be used as a springboard for sustaining the improvement achieved and attaining new improvements.

Appendix A. Module Submission Form

Appendix A contains the Module Submission Form provided by the health plan.

State of Colorado

Performance Improvement Project (PIP)
Module 4 — PIP Conclusions Submission Form

Depression Screening and Follow–up After a Positive Depression Screen
for (DHMP CHP+)

Managed Care Organization (MCO) Information	
MCO Name	Denver Health Medical Plan
PIP Title	*Depression Screening and Follow–up After a Positive Depression Screen*
Contact Name	Elizabeth Flood
Title	Population Health Manager
Email Address	elizabeth.flood@dhha.org
Telephone Number	(845) 649-0130
Submission Date	10.21.22
Resubmission Date (if applicable)	**01.20.23**

Provide the following final documents with the Module 4 Submission

- Completed PDSA Worksheets

State of Colorado

Performance Improvement Project (PIP)

Module 4 — PIP Conclusions Submission Form

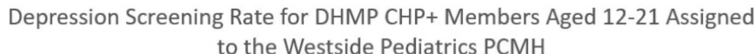
Depression Screening and Follow–up After a Positive Depression Screen

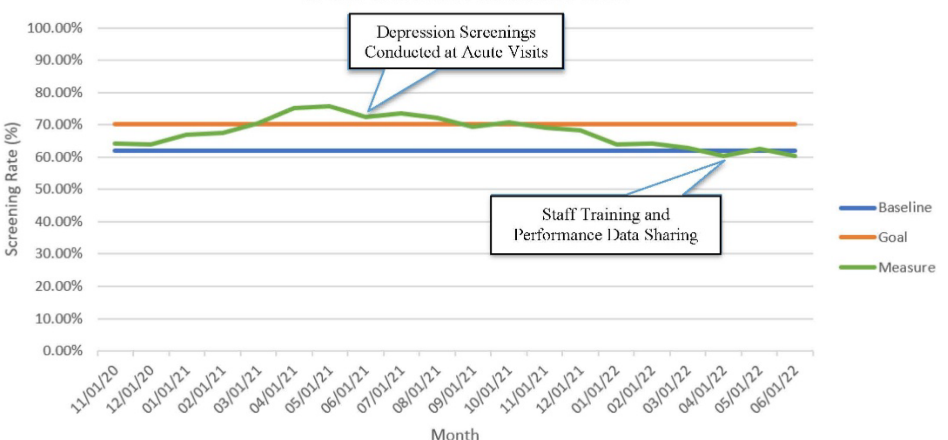
for **(DHMP CHP+)**

Final SMART Aim Run Chart – *Depression Screening*

Instructions: In the space below, insert or attach the **final** SMART Aim run chart. Include the following:

- SMART Aim goal.
- Narrowed focus baseline percentage.
- Rolling 12-month measure data points for the duration of the PIP.
- Intervention markers to display how the timing of the interventions coincided with changes in the SMART Aim measure.





SMART Aim:

By June 30th, 2022, use key driver diagram interventions to increase the percentage of members who received at least one depression screening annually among Denver Health CHP+ members aged 12-21 assigned to the Westside Pediatrics PCMH, from 62.11% to 70.18%.

State of Colorado

Performance Improvement Project (PIP)

Module 4 — PIP Conclusions Submission Form

Depression Screening and Follow–up After a Positive Depression Screen

for **(DHMP CHP+)**

To confirm that the MCO used the 12-month methodology as required, check the box below.

ROLLING 12-MONTH ATTESTATION
☒ **The MCO confirms that the reported SMART Aim run chart data are based on rolling 12-month measurements**.

Final Monthly SMART Aim Measure Data – *Depression Screening*

Instructions:

- In Table 1a, provide the monthly numerator, denominator, and percentage for each SMART Aim rolling 12-month measurement period.
- The reporting month is the last month of each rolling 12-month measurement period.
- Add additional rows to the table as needed.

Table 1a—SMART Aim Measure Monthly Data - *Depression Screening*

SMART Aim rolling 12-Month Measurement Period (MM/DD/YYYY-MM/DD/YYYY)	Reporting Month	Numerator	Denominator*	Percentage
12/01/2019-11/30/2020	November 2020	168	262	64.12%
01/01/2020-12/31/2020	December 2020	162	253	64.03%
02/01/2020-01/31/2021	January 2021	163	244	66.80%
03/01/2020-02/28/2021	February 2021	161	239	67.36%
04/01/2020-03/31/2021	March 2021	160	227	70.48%

State of Colorado

Performance Improvement Project (PIP)

Module 4 — PIP Conclusions Submission Form

Depression Screening and Follow–up After a Positive Depression Screen

for **(DHMP CHP+)**

05/01/2020-04/30/2021	April 2021	169	225	75.11%
06/01/2020-05/31/2021	May 2021	173	229	75.55%
07/01/2020-06/30/2021	June 2021	165	228	72.37%
08/01/2020-07/31/2021	July 2021	159	216	73.61%
09/01/2020-08/31/2021	August 2021	155	215	72.09%
10/01/2020-09/30/2021	September 2021	147	212	69.34%
11/01/2020-10/31/2021	October 2021	142	201	70.65%
12/01/2020-11/30/2021	November 2021	134	194	69.07%
01/01/2021-12/31/2021	December 2021	123	180	68.33%
02/01/2021-01/31/2022	January 2022	118	185	63.78%
03/01/2021-02/28/2022	February 2022	116	181	64.09%
04/01/2021-03/31/2022	March 2022	118	188	62.77%
05/01/2021-04/30/2022	April 2022	113	187	60.43%
06/01/2021-05/31/2022	May 2022	110	176	62.50%
07/01/2021-06/30/2022	June 2022	100	166	60.24%

*Denominators for this measure decreased over the study period, as CHP+ members became eligible for Medicaid due to the Public Health Emergency. Declining CHP+ membership was noted across DHMP.

State of Colorado

Performance Improvement Project (PIP)

Module 4 — PIP Conclusions Submission Form

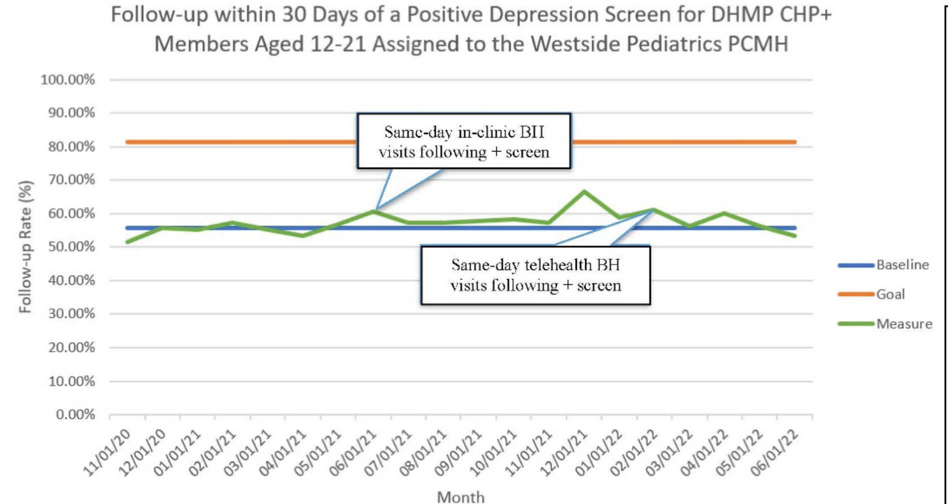
Depression Screening and Follow–up After a Positive Depression Screen

for **(DHMP CHP+)**

Final SMART Aim Run Chart – *Follow–up After a Positive Depression Screen*

Instructions: In the space below, insert or attach the final SMART Aim run chart. Include the following:

- SMART Aim goal.
- Narrowed focus baseline percentage.
- Rolling 12-month measure data points for the duration of the PIP.
- Intervention markers to display how the timing of the interventions coincided with changes in the SMART Aim measure.



SMART Aim:

By June 30th, 2022, use key driver diagram interventions to increase the percentage of members who completed a behavioral health visit within 30 days of a positive depression screening OR who had documentation that they are already engaged in care with an outside behavioral health provider among Denver Health CHP+ members aged 12-21 assigned to the Westside Pediatrics PCMH from 55.56% to 81.48%.

State of Colorado
Performance Improvement Project (PIP)
Module 4 — PIP Conclusions Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for **(DHMP CHP+)**

To confirm that the MCO used the 12-month methodology as required, check the box below.

ROLLING 12-MONTH ATTESTATION
☒ **The MCO confirms that the reported SMART Aim run chart data are based on rolling 12-month measurements**.

Final Monthly SMART Aim Measure Data – *Follow–up After a Positive Depression Screen*

Instructions:

- In Table 1b, provide the monthly numerator, denominator, and percentage for each SMART Aim rolling 12-month measurement period.
- The reporting month is the last month of each rolling 12-month measurement period.
- Add additional rows to the table as needed.

Table 1b—SMART Aim Measure Monthly Data - *Follow–up After a Positive Depression Screen*

SMART Aim rolling 12-Month Measurement Period (MM/DD/YYYY-MM/DD/YYYY)	Reporting Month	Numerator	Denominator*	Percentage
12/01/2019-11/30/2020	November 2020	16	31	51.61%
01/01/2020-12/31/2020	December 2020	15	27	55.56%
02/01/2020-01/31/2021	January 2021	16	29	55.17%
03/01/2020-02/28/2021	February 2021	16	28	57.14%
04/01/2020-03/31/2021	March 2021	16	29	55.17%
05/01/2020-04/30/2021	April 2021	16	30	53.33%

State of Colorado

Performance Improvement Project (PIP)

Module 4 — PIP Conclusions Submission Form

Depression Screening and Follow–up After a Positive Depression Screen

for **(DHMP CHP+)**

06/01/2020-05/31/2021	May 2021	17	30	56.67%
07/01/2020-06/30/2021	June 2021	17	28	60.71%
08/01/2020-07/31/2021	July 2021	16	28	57.14%
09/01/2020-08/31/2021	August 2021	16	28	57.14%
10/01/2020-09/30/2021	September 2021	15	26	57.69%
11/01/2020-10/31/2021	October 2021	14	24	58.33%
12/01/2020-11/30/2021	November 2021	12	21	57.14%
01/01/2021-12/31/2021	December 2021	12	18	66.67%
02/01/2021-01/31/2022	January 2022	10	17	58.82%
03/01/2021-02/28/2022	February 2022	11	18	61.11%
04/01/2021-03/31/2022	March 2022	9	16	56.25%
05/01/2021-04/30/2022	April 2022	9	15	60.00%
06/01/2021-05/31/2022	May 2022	9	16	56.25%
07/01/2021-06/30/2022	June 2022	8	15	53.33%

*Denominators for this measure decreased over the study period, as CHP+ members became eligible for Medicaid due to the Public Health Emergency. Declining CHP+ membership was noted across DHMP.

Final Key Driver Diagrams

Instructions: In the space below, provide the updated final key driver diagrams. The MCO must use the following color-coding system in the final key driver diagrams. The MCO should ensure that one key driver diagram is provided for each outcome: ***Depression Screening*** and ***Follow–up After a Positive Depression Screen***.

- Green highlight for successful adopted interventions.
- Yellow highlight for interventions that were adapted or not tested.
- Red highlight for interventions that were abandoned.
- Blue highlight for interventions that require continued testing.

State of Colorado

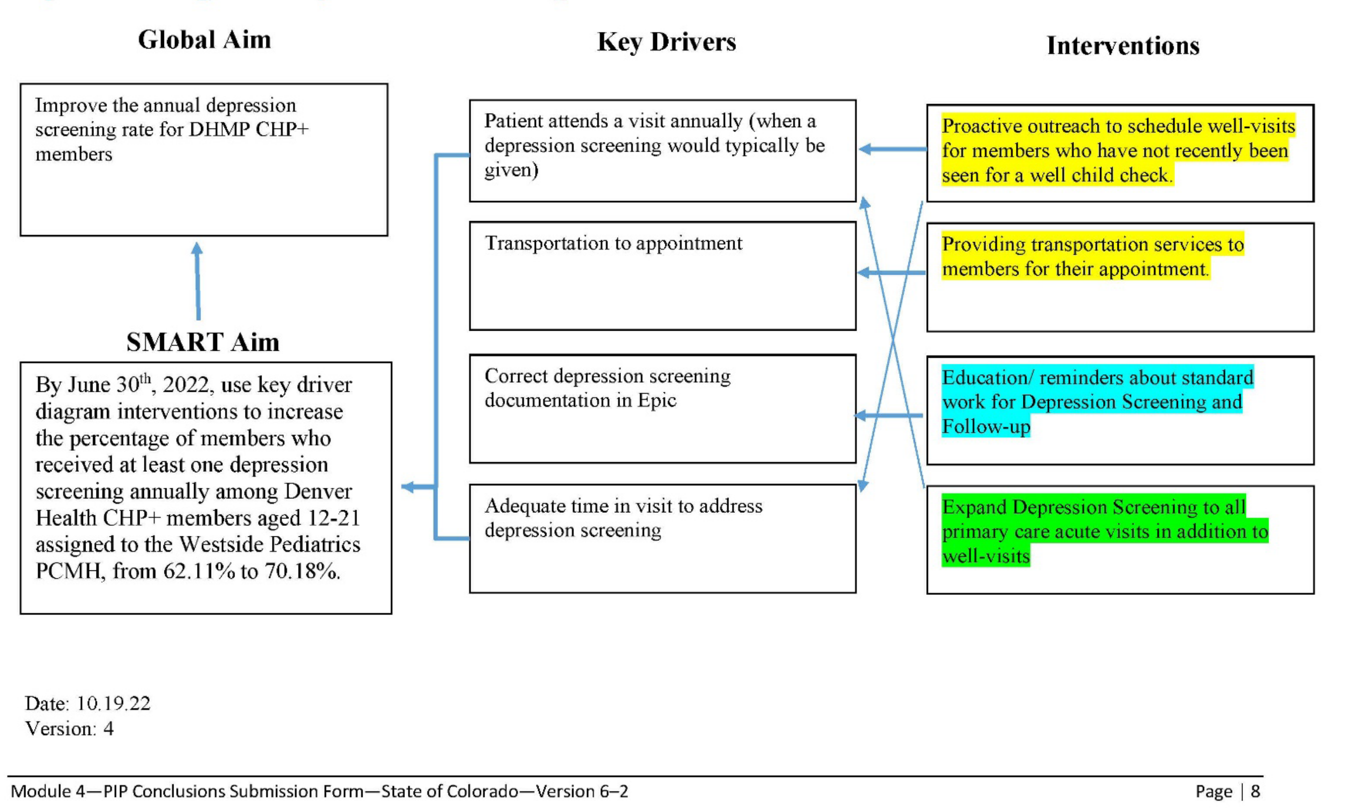
Performance Improvement Project (PIP)

Module 4 — PIP Conclusions Submission Form

Depression Screening and Follow–up After a Positive Depression Screen

for **(DHMP CHP+)**

Key Driver Diagram– *Depression Screening*



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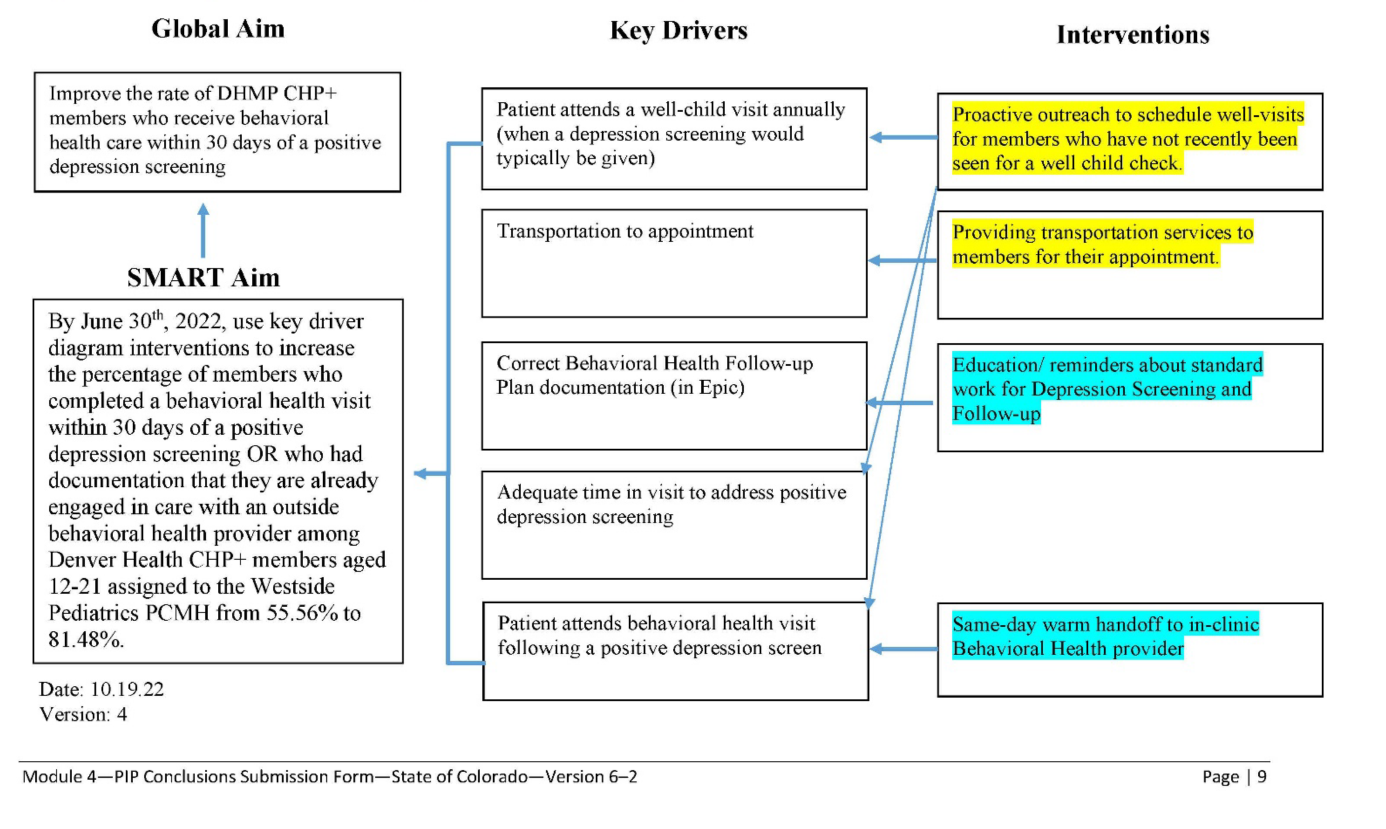
Key Driver Diagram – *Follow–up After a Positive Depression Screen*



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Project Conclusions

Instructions: In Table 2a, for ***Depression Screening***, and in Table 2b, for ***Follow–up After a Positive Depression Screen***, provide a description of the following:

- **Project Conclusions**: The narrative should include whether the SMART Aim goal, statistically significant, clinically significant, or programmatically significant improvement was achieved and what led to the success of the project. If the SMART Aim goal was not achieved and statistically significant improvement in the SMART Aim measure was not achieved, the narrative should describe if there was any non-statistically significant improvement demonstrated by the SMART Aim measure. If the SMART Aim goal or significant improvement was *not* achieved, the narrative should explain why improvement was not achieved and include planned changes to address the lack of improvement in future improvement projects.
- **Intervention Testing Conclusions**: Describe the intervention(s) that had the greatest impact on the SMART Aim, why the MCO came to these conclusions, and how the timing of the intervention(s) related to changes in the SMART Aim measure rate. This narrative should align with the results of the PDSA cycle(s) detailed in the PDSA worksheet(s).
- **Spread of Successful Intervention(s)**: For successful intervention(s), the MCO will describe its plan for spreading the intervention(s) beyond the selected narrowed focus of the PIP.
- **Challenges Encountered**: Describe any challenges or barriers that occurred during the project and the MCO's actions to overcome or address the challenge(s) and/or barrier(s).
- **Lessons Learned/Information Gained**: Describe the knowledge and experience gained from the project. This information can prove to be highly valuable and be applied to future projects.
- **Sustainability of Improvement:** Below each table, provide a narrative description of plans for sustaining any improvement achieved beyond the SMART Aim end date.

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Table 2a—Project Conclusions – *Depression Screening*	
Project Conclusions	The SMART Aim goal of using key driver diagram interventions to increase the percentage of members who received at least one depression screening annually among Denver Health CHP+ members aged 12-21 assigned to the Westside Pediatrics PCMH, from 62.11% to 70.18% by June 30th, 2022, **was achieved for six of the rolling 12-month measurement periods from March 2021-August 2021 and again for the rolling 12-month measurement period ending in October 2021.** Statistically significant improvement **was achieved** for the overall depression screening rate SMART Aim **for six of the rolling 12-month measurement periods from March 2021-August 2021 and again for the 12-month measurement period ending in October 2021**. Both clinically significant and programmatically significant improvements were achieved, because implementing depression screenings at acute visits in addition to well visits increased the number of screenings completed, therefore increasing the number of opportunities to identify a CHP+ member who would benefit from behavioral health services and connect them to care. Different denominators and time periods for the SMART Aim goal and the intervention effectiveness measure for this metric make it difficult to draw conclusions on the effectiveness of an intervention on an overarching goal, since apples are not compared to apples. The SMART Aim goal denominator is the number of CHP+ members aged 12-21 with Westside Pediatrics assigned as their PCMH. To be numerator positive for this measure, members must have had at least one depression screening at a non-emergency

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	outpatient visit in the past 12 months. The intervention effectiveness measure denominator was the number of acute visits attended by CHP+ members aged 12-21 with Westside Pediatrics assigned as their PCMH. To be numerator positive for this measure, a depression screening must have been completed and documented for the visit. Further, the time period for the SMART Aim goal was a rolling 12 months, whereas the intervention effectiveness measure was one month. Depression screening at acute visits can increase overall depression screening rates for patients, but in order to maximize its effectiveness the process should be expanded to all clinics within the Denver Health system. This will further increase opportunities for patients to complete a depression screening and identify those who would benefit from behavioral health intervention. The acute visit depression screening rates and overall rate of CHP+ members who had completed a depression screening in the past year began to align following the closure of this PIP. Potential explanations for this involve the 12 month lookback period of the overall screening measure, as members who had attended an acute visit at Westside within the past twelve months were more likely to have received a depression screening during that visit, since the intervention had been implemented for a calendar year. Further, declining COVID-19 cases and emphasis on returning to pre-pandemic lifestyles may have relaxed clinic protocols designed to limit COVID-19 transmission.
Intervention Testing Conclusions	Expanding depression screening to acute visits in addition to well visits can increase the number of members for whom a depression screening was completed in the past year; however, staffing shortages and competing priorities during limited appointment time make it difficult to complete a screening at every visit. Training and data sharing can help keep depression screening on medical assistants' radars, but these interventions should be

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	adopted throughout the DHHA system in order to maximize screening rates and best meet CHP+ member behavioral health needs.
Spread of Successful Interventions	The lessons learned in this PIP have been shared, and continue to be shared, at relevant meetings across the organization to disseminate best practices and increase the likelihood of successful implementation across the Denver Health system. As more clinics adopt depression screening at acute visits, the pilot site will share their workflows and staff trainings, and MCO project staff will be available to provide technical assistance and facilitate intervention roll-out.
Challenges Encountered During Project	Staffing vacancies at the clinic hindered a more successful roll-out of the new acute visit depression screening process, as existing staff were completing more work than usual and not prioritizing completing depression screens at all visits. Additional staff were hired, which alleviated some pressure from existing staff and allowed for more focus on the new depression screening process. New staff were not sufficiently trained on the acute visit depression screening process. All Westside staff were trained on the acute visit depression screening process at an all-clinic meeting to ensure that current staff were familiar with the process, and training for new staff was reassessed. Clinic staff did not feel like they had time to conduct the depression screening during acute visits due to competing priorities during patient intake and appointments. Staff turnover and medical assistant shortages further exacerbated this issue. Acute visit clinic workflows were revisited to assess opportunities to improve efficiency and ensure depression screens were

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	conducted at every visit. No opportunities were identified at that time, but clinic staff will reassess at a later date. The uptick in cases of a new COVID-19 variant at the beginning of 2022 further limited regular completion of depression screens, as staff were absent from work due to illness and clinic processes were modified to minimize the amount of time patients spent at the visit and in contact with clinic staff to reduce the risk of additional COVID-19 transmission. The clinic made plans for the depression screenings to be conducted by the patient on a tablet while they were waiting for their appointment to begin, minimizing staff contact and subsequent COVID-19 transmission risk.
Lessons Learned/Information Gained Throughout the Project	There is willingness among clinic staff to complete depression screenings at all visits, including acute visits, but uptake of a new process takes time. Comprehensive training on acute visit depression screening workflows is an important part of clinic staff onboarding, especially in times of high turnover. Regular data sharing on clinic performance on the measure can provide increased emphasis on the importance of regular depression screenings and increase staff administration of depression screenings at visits, though it may not be sufficient to significantly increase screening rates at this time.

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Sustainability of Improvement – *Depression Screening*

Instructions: In the space below, describe the MCO's plan for sustaining improvement achieved for ***Depression Screening*** beyond the SMART Aim end date.

DHMP will continue to partner with DHHA to more closely track this metric; it is now a core measure at DHHA, so there is increased focus and tracking across the Denver Health system. As DHHA transitions to core measures, there is an opportunity to analyze the data more deeply across system to continue refining this intervention (identifying high-performing providers to learn and disseminate best practices, examining how well medical assistants administer depression screenings, etc).

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Table 2b—Project Conclusions – *Follow-up after a Positive Depression Screen*	
Project Conclusions	Conclusions from this project must be interpreted with caution, as the SMART Aim measure denominator was small (less than 30) and therefore results may not be reliable and/or replicable on a larger scale. The SMART Aim goal of using key driver diagram interventions to increase the percentage of members who completed a behavioral health visit within 30 days of a positive depression screening OR who had documentation that they are already engaged in care with an outside behavioral health provider among Denver Health CHP+ members aged 12-21 assigned to the Westside Pediatrics PCMH from 55.56% to 81.48% by June 30th, 2022, was not achieved. Statistically significant SMART Aim measure improvement was not achieved, though would have required an improvement of 25 percentage points over baseline due to the small denominator. It is difficult to determine whether or not clinically significant or programmatically significant improvement in processes and outcomes was achieved for the overall 30 day follow-up after a positive depression screening rate SMART Aim goal, once again due to fluctuating rates driven by the small denominators. If interpreting the results without taking the small numbers factor into account, it would seem that neither clinically nor programmatically significant improvement was demonstrated. However, in order to more definitively draw conclusions on intervention potential to improve the SMART Aim measure performance, a larger denominator population is required. In order to increase

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Table 2b—Project Conclusions – *Follow-up after a Positive Depression Screen*	
	the denominator, more clinics should adapt the same-day behavioral health follow-up following a positive depression screen. Ultimately, the difficulty in improving performance on the SMART Aim measure lies largely on the robustness of the behavioral health system. If there are not enough providers to meet demand, if first available appointments are outside the 30 day mark, no lower-level intervention will be able to make a significant difference in overall performance and member outcomes. This is an increasing challenge, both at DHHA and nationwide.
Intervention Testing Conclusions	Same-day follow-up appointments following a positive depression screening can increase overall behavioral follow-up rates for CHP+ members, but in order to maximize its effectiveness the process should be expanded to all clinics within the Denver Health system. This will further increase opportunities for CHP+ members to connect to behavioral health care following a positive depression screening; however, until behavioral health staffing is increased and timely appointment capacity is subsequently improved, interventions will have limited impact on the overall goal of connecting CHP+ members to needed behavioral health care. Telehealth can help mitigate provider shortage gaps, but this is not sufficient for overall measure improvement.

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Table 2b—Project Conclusions – *Follow-up after a Positive Depression Screen*	
Spread of Successful Interventions	The lessons learned in this PIP have been shared, and continue to be shared, at relevant meetings across the organization to disseminate best practices and advocate for opportunities to increase behavioral health capacity. However, a successful system-wide adoption is heavily dependent upon increased behavioral health capacity. Future efforts will focus on strategies to strengthen the behavioral health system.
Challenges Encountered During Project	Same-day behavioral health appointments were often not available in-clinic for CHP+ members with a positive depression screen due to limited behavioral health staffing. Telehealth appointments were added as an alternative same-day behavioral health follow-up visit option to mitigate the impact of limited behavioral health staff on-site at Westside Pediatrics. No further resolutions were determined to rectify staffing challenges in the near future, as lack of behavioral health providers is a broad-reaching issue.
Lessons Learned/Information Gained Throughout the Project	Systemic behavioral health capacity issues need to be considered when designing interventions for this measure. This measure is unlikely to show much improvement until systemic behavioral health capacity issues are rectified. This includes increasing DHHA behavioral health staffing levels as well as recruiting additional behavioral health providers to accept CHP+ members. In order to recruit additional providers, reimbursement rates need to be examined, and ultimately funding may need to be reprioritized.

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Sustainability of Improvement – *Follow–up after a Positive Depression Screen*

Instructions: In the space below, describe the MCO's plan for sustaining improvement achieved for ***Follow–up After a Positive Depression Screen*** beyond the SMART Aim end date.

Successful system-wide adoption is heavily dependent upon increased behavioral health capacity. Future efforts will focus on strategies to strengthen the behavioral health system, including examining methods to increase the number of trained behavioral health professionals in the workforce, reprioritizing funding to prioritize behavioral health spending (including creating additional DHHA provider positions), exploring alternative funding opportunities for behavioral health (government and privately-funded grants, monetary challenges), and advocating for increased provider reimbursement rates to incentivize behavioral health provider network recruitment and expansion.

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Appendix B. Module Validation Tool

Appendix B contains the Module Validation Tool provided by HSAG.

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Criteria	Score	HSAG Feedback and Recommendations
1. The rolling 12-month data collection methodology was followed for the SMART Aim measures for the duration of the PIP.	☒ Met ☐ Partially Met ☐ Not Met ☐ Not Applicable	
2. The MCO provided evidence to demonstrate at least one of the following: ☒ The SMART Aim goal was achieved. ☒ Statistically significant improvement over the narrowed focus baseline percentage was achieved (95 percent confidence level, $p < 0.05$.) ☒ Non-statistically significant improvement in the SMART Aim measure. ☒ Significant *clinical* improvement in processes and outcomes. ☒ Significant *programmatic* improvement in processes and outcomes.	☒ Met ☐ Partially Met ☐ Not Met ☐ Not Applicable	For *Depression Screening*: • The SMART Aim goal was achieved. • Statistically significant improvement over baseline was achieved. • Significant *programmatic* and significant *clinical* improvement were demonstrated for the *Expand Depression Screening to All Primary Care Acute Visits in Addition to Well-Visits* intervention. For *Follow-up After a Positive Depression Screen*: • Non-statistically significant improvement over baseline was achieved. • Significant *programmatic* and significant *clinical* improvement were demonstrated for the *Same-Day Warm Handoff to In-Clinic Behavioral Health Provider* intervention.

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Criteria	Score	HSAG Feedback and Recommendations
3. If improvement, as outlined for Criterion 2, was demonstrated, at least one of the tested interventions could reasonably result in the demonstrated improvement.	☒ Met ☐ Partially Met ☐ Not Met ☐ Not Applicable	
4. The MCO completed the Plan-Do-Study-Act (PDSA) worksheets with accurately reported data and interpretation of testing results.	☒ Met ☐ Partially Met ☐ Not Met ☐ Not Applicable	
5. The narrative summaries of the project conclusions were complete and accurate.	☒ Met ☐ Partially Met ☐ Not Met ☐ Not Applicable	In the project conclusions, the health plan stated that the SMART Aim goal and statistically significant improvement were not achieved for *Depression Screening*. Based on the reported numerators and denominators, HSAG identified that statistically significant improvement over baseline was achieved for six rolling 12-month measurement periods, from March 2021 through August 2021. The results for the same six rolling 12-month measurement periods also achieved the SMART Aim goal of 70.18 percent. **Resubmission January 2023:** The health plan revised the project conclusions for *Depression Screening* to correctly describe the improvement achieved. The score for this criterion has been changed from *Partially Met* to *Met*.

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Criteria	Score	HSAG Feedback and Recommendations
6. If improvement, as outlined for Criterion 2, was demonstrated, the MCO documented plans for sustaining improvement beyond the SMART Aim end date.	☒ Met ☐ Partially Met ☐ Not Met ☐ Not Applicable	

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Based on the validation findings, HSAG determined the following confidence level for this PIP:

☒ **High confidence:** The PIP was methodologically sound, the SMART Aim goals, statistically significant, clinically significant, or programmatically significant improvements were achieved for both measures, at least one tested intervention for each measure could reasonably result in the demonstrated improvement, and the MCO accurately summarized the key findings and conclusions.

☐ **Moderate confidence:** The PIP was methodologically sound, at least one tested intervention could reasonably result in the demonstrated improvement, and at least one of the following occurred:

- ☐ The SMART Aim goal, statistically significant, clinically significant, or programmatically significant improvement was achieved *for only one measure* and the MCO accurately summarized the key findings and conclusions.
- ☐ Non-statistically significant improvement in the SMART Aim measure was achieved *for at least one measure* and the MCO accurately summarized the key findings and conclusions.
- ☐ The SMART Aim goal, statistically significant, non-statistically significant, clinically significant, or programmatically significant improvement was achieved *for at least one measure*; however, the MCO *did not* accurately summarize the key findings and conclusions.

☐ **Low confidence:** One of the following occurred:

- ☐ The PIP was methodologically sound. However, no improvement was achieved for either measure during the PIP. The SMART Aim goals *were not* met, statistically significant improvement *was not* demonstrated, non-statistically significant improvement *was not* demonstrated, significant clinical improvement *was not* demonstrated, and significant programmatic improvement *was not* demonstrated.
- ☐ The PIP was methodologically sound. The SMART Aim goal, statistically significant, non-statistically significant, clinically significant, or programmatically significant improvement was achieved *for at least one measure*; however, *none* of the tested interventions could reasonably result in the demonstrated improvement.
- ☐ The rolling 12-month data collection methodology was followed for only one of two SMART Aim measures for the duration of the PIP.

☐ **No confidence:** The SMART Aim measure methodology and/or approved rapid-cycle PIP methodology/process *was not* followed through the SMART Aim end date.

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Summary of Validation Findings:
HSAG assigned a level of *High Confidence* to the PIP based on the Module 4 submission form and PDSA worksheet documentation. The documentation demonstrated the following: • Significant improvement achieved for both the *Depression Screening* and *Follow-Up After a Positive Depression Screen* measures: ○ Both the SMART Aim goal and statistically significant improvement were achieved for *Depression Screening*. ○ While only non-statistically significant improvement was achieved for *Follow-Up After a Positive Depression Screening*, the health plan documented intervention testing results that supported significant *programmatic* and significant *clinical* improvement related to follow-up care. • Interventions were carried out and evaluated according to the approved Module 3 plan and the health plan provided detailed intervention testing results, clear rationale for intervention or evaluation revisions, and detailed and insightful summaries of lessons learned from intervention testing. • In the PDSA worksheet for the *Same-Day Warm Handoff to In-Clinic Behavioral Health Provider* intervention, the health plan cautioned that results should be interpreted with caution due to the small denominator sizes. While it is wise to be aware of the limitations of small numbers, and to consider opportunities to evaluate interventions on an increasingly larger scale over time, it is acceptable for initial PDSA tests to occur on a small scale. • In the January 2023 resubmission, the health plan revised the project conclusions to correctly report that the SMART Aim goal and statistically significant improvement were achieved for the for the *Depression Screening* measure. With these revisions, the health plan provided clear and accurate summaries of key findings and conclusions from the PDSA cycles and from the project, overall.