Colorado Children's Health Insurance Program

Fiscal Year 2021–2022 PIP Validation Report

for

Kaiser Permanente Colorado

April 2022

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

Table of Contents

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. **Kaiser Permanente Colorado**, referred to in this report as **Kaiser**, 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) 2021–2022, 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 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. 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 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

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.

[1-1] 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: Feb 23, 2022.

[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: Feb 23, 2022.

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.
- **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.

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 **Kaiser**'s module submission forms. In FY 2021–2022, these forms provided detailed information about **Kaiser**'s PIP and the activities completed in Module 2 and Module 3. (See Appendix A. Module Submission Forms.) Following HSAG's rapid-cycle PIP process, the health plan submits each module according to the approved timeline. Following the initial validation of each module, HSAG provides feedback in the validation tools. If validation criteria are not achieved, the health plan has the opportunity to seek technical assistance from HSAG. The health plan resubmits the modules until all validation criteria are met. This process ensures that the PIP methodology is sound prior to the health plan progressing to intervention testing.

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 2021–2022, **Kaiser** submitted the following PIP topic for validation: *Depression Screening and Follow-Up After a Positive Depression Screen*.

Kaiser 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 **Kaiser**.

Table 1-1—SMART Aim Statements

PIP Measures	SMART Aim Statements
Depression Screening	By June 30, 2022, we will increase the percentage of all CHP+ members assigned to Westminster and Englewood medical office buildings (MOBs) between ages 12 and 17 years who are screened for depression annually from 9.93% to 20%. This will be achieved by utilizing key driver diagram interventions.
Follow-Up After a Positive Depression Screen	By utilizing key driver diagram interventions within 30 days of a positive screen, KP will maintain performance at 90% or higher follow-up rates of all CHP+ members ages 12–17 years who screen positive for depression as we increase our rates of case identification through improved screening rates by June 30, 2022.

The focus of the PIP is to increase the percentage of members 12 through 17 years of age who receive a depression screening during a well visit at the Englewood and Westminster MOBs and to maintain a high percentage of those members who receive BH services within 30 days of screening positive for depression. The goal to increase depression screening to 20 percent represents statistically significant improvement over the baseline performance. Because the baseline performance rate on the *Follow-Up After a Positive Depression Screen* measure was 100 percent, it is not possible for the PIP to demonstrate statistically significant improvement in this measure. The Department and HSAG approved the health plan's goal to maintain performance on follow-up care at 90 percent or higher while also working to increase the percentage of members who are screened for depression.

Table 1-2 summarizes the progress **Kaiser** has made in completing the four PIP modules.

Table 1-2—PIP Topic and Module Status

PIP Topic	Module	Status
Depression Screening and Follow-Up After a Positive Depression Screen	1. PIP Initiation	Completed and achieved all validation criteria.
	2. Intervention Determination	Completed and achieved all validation criteria.
	3. Intervention Testing	In progress. Module 3 submission forms submitted to date have achieved all validation criteria. The MCO will test interventions until June 30, 2022, and submit a new Module 3 submission form when a new intervention is initiated.
	4. PIP Conclusions	Targeted for October 2022.

At the time this FY 2021–2022 PIP validation report was produced, **Kaiser** had passed Module 1 and Module 2, achieving all validation criteria for the PIP. **Kaiser** had also passed all validation criteria for the Module 3 submission form submitted for each intervention being tested and was continuing to test interventions. The health plan will conclude all intervention testing on June 30, 2022. Module 4 validation findings will be reported in the FY 2022–2023 PIP validation report.

Validation Findings

In FY 2021–2022, **Kaiser** continued the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP. The health plan passed Module 2 and Module 3 of the rapid-cycle PIP process during FY 2021–2022. HSAG reviewed Module 2 and Module 3 submission forms and provided feedback and technical assistance to the health plan until all validation criteria were achieved. Below are summaries of the Module 2 and Module 3 validation findings for the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP. Detailed validation criteria, scores, and feedback from HSAG are provided in Appendix B. Module Validation Tools.

Module 2: Intervention Determination

The objective of Module 2 is to ask and answer the fundamental question, "What changes can we make that will result in improvement?" In this phase, **Kaiser** developed process maps, conducted FMEAs, and updated key driver diagrams to identify potential interventions for the PIP. The detailed process maps, FMEA results, and updated key driver diagrams that **Kaiser** documented in the Module 2 submission form are included in Appendix A. Module Submission Forms. Table 2-1 presents the FY 2021–2022 Module 2 validation findings for **Kaiser**'s *Depression Screening and Follow-Up After a Positive Depression Screen* PIP.

Table 2-1—Module 2 Validation Findings for the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP

PIP Measures	Priority Failure Modes	Key Drivers	Potential Interventions
Depression Screening	• No depression screening questionnaire provided to the member • Depression screening questionnaire results are not always attached to the encounter record • Only do summer sports physical outreach, dependent on the member to remember to schedule a well visit appointment	• Ensure Pre-Teen/Teen Questionnaire (containing PHQ2/PHQ9)[1] is administered and recorded in the electronic health record (EHR) • Increase annual well visit rates for 12–17-year-olds	• Reminder text sent to 12–17-year-olds to schedule their well visit • Auto-assign appropriate depression screening questionnaire (Pre-Teen/Teen) when well visit is scheduled, if member is enrolled in KP.org • If member is not enrolled on KP.org or if depression screening has not been completed prior to appointment, a nurse will load the depression screening questionnaire to member's EHR profile

PIP Measures	Priority Failure Modes	Key Drivers	Potential Interventions
			• Use of clinic-provided tablet or member's personal smart device on-site to complete the depression screening questionnaire, which will automatically load results into member's EHR • Provider will complete screening questionnaire with patient during visit if not completed earlier
Follow-Up After a Positive Depression Screen	• Depression screening results are not updated in the member's medical record • Follow-up questionnaire not administered in response to PHQ-2 • Provider does not see the member's positive screening results • Member does not show up for follow-up appointment	• Behavioral medicine specialists available at time of positive screen to discuss with teen and provider • Results from the Pre-Teen/Teen Questionnaire are recorded in the EHR • Providers have medication support via integrated e-consult system with child psychiatry	• At the time of positive depression screen, the provider can enlist the support of a licensed clinical social worker (LCSW) in the role of primary care behavioral medicine specialist • Use of clinic-provided tablet or member's personal smart device on-site to complete the depression screening questionnaire, which will automatically load results into member's EHR • Use of e-consult by providers as a resource for medication support from child psychiatry

[1]PHQ = Patient Health Questionnaire

In Module 2, **Kaiser** identified potential interventions that can reasonably be expected to support achievement of the SMART Aim goals by addressing priority failure modes and leveraging key drivers. The potential interventions **Kaiser** identified to improve depression screening focused on leveraging technology to increase access to depression screening and ensure screening results were captured in the medical record. The potential interventions **Kaiser** identified to improve follow-up services included on-site and electronic behavioral consultation opportunities for screening providers and use of an electronic screening tool to ensure results were captured in the medical record.

Module 3: Intervention Testing

Module 3 initiates the intervention testing phase of the PIP process. During this phase, **Kaiser** developed the intervention *Plan* component of the PDSA cycle. In FY 2021–2022, **Kaiser** submitted testing plans for two interventions. In addition to validating the intervention plans submitted for Module 3, HSAG also conducted an intervention testing check-in with the health plan to provide support and technical assistance, if needed, as **Kaiser** carried out PDSA cycles to evaluate intervention effectiveness. Table 2-2 summarizes the FY 2021–2022 Module 3 validation findings for **Kaiser**'s two interventions.

Table 2-2—Module 3 Validation Findings for the *Depression Screening and Follow-Up After a Positive Depression Screen* PIP

Intervention Description	Failure Mode(s) Addressed	Key Driver(s) Addressed	Intervention Effectiveness Measure(s)
Provide member with a link to an electronic depression screening form (PHQ-2/PHQ-9) via secure email when well visit appointment is scheduled and request that member completes form prior to attending appointment	No evidence of depression screening questionnaire being provided to the member	Ensure Pre-Teen/Teen Questionnaire (containing PHQ-2/PHQ-9) is administered and recorded in the EHR	Percentage of CHP+ members 12–17 years of age who attend a well visit at Westminster or Englewood MOBs and who were screened for clinical depression as part of the well visit, as documented in the EHR
Provide member with an electronic tablet to complete the depression screening form (PHQ-2/PHQ-9) at appointment check-in, with screening responses captured directly in the EHR from tablet	No evidence of depression screening questionnaire being provided to the member	Ensure Pre-Teen/Teen Questionnaire (containing PHQ-2/PHQ-9) is administered and recorded in the EHR	Percentage of CHP+ members 12–17 years of age who attend a well visit at Westminster or Englewood MOBs and who were screened for clinical depression as part of the well visit, as documented in the EHR

In Module 3, **Kaiser** selected two interventions to test for the PIP. The detailed intervention testing plans **Kaiser** documented in the Module 3 submission forms are included in Appendix A. Module Submission Forms. The interventions addressed process failures related to consistently delivering the depression screening questionnaire and consistently capturing screening results in the EHR. For each intervention, **Kaiser** defined an intervention effectiveness measure to evaluate the impact of the intervention and provide data to guide intervention revisions. The health plan was continuing to test the interventions at the time this FY 2021–2022 PIP validation report was produced. **Kaiser** will report final intervention testing results and conclusions as part of the Module 4 submission in FY 2022–2023, and the final Module 4 validation findings will be included in the FY 2022–2023 PIP report.

3. Conclusions and Recommendations

Conclusions

The validation findings suggest that **Kaiser** successfully completed Module 2 of the rapid-cycle PIP process, using QI science-based tools to identify process gaps and failures, and to select PIP interventions. **Kaiser** also passed Module 3 for two interventions, developing a methodologically sound plan for evaluating effectiveness of the interventions through PDSA cycles. **Kaiser** will continue to test the interventions for the PIP through the end of FY 2021–2022. The health plan will submit final intervention testing results, PIP outcomes, and project conclusions for validation in FY 2022–2023.

Recommendations

- **Kaiser** should collect complete and accurate intervention effectiveness data for each tested intervention. The health plan should record intervention testing results and interpretation of results in the PDSA worksheet for each intervention, which will be submitted as part of Module 4—PIP Conclusions in FY 2022–2023.
- **Kaiser** should ensure that the approved SMART Aim data collection methodology defined in Module 1 is used consistently to calculate SMART Aim measure results throughout the project. Using consistent data collection methodology will allow valid comparisons of SMART Aim measure results over time.
- For any demonstrated improvement in outcomes or programmatic or clinical processes, **Kaiser** should develop and document a plan for sustaining the improvement beyond the end of the project.
- At the end of the project, **Kaiser** should synthesize conclusions and lessons learned to support and inform future improvement efforts. In addition to documenting any improvement achieved through the project, the health plan should document which interventions had the greatest impact, including the evaluation data used to determine intervention effectiveness.

Appendix A. Module Submission Forms

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

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for **Kaiser Permanente**

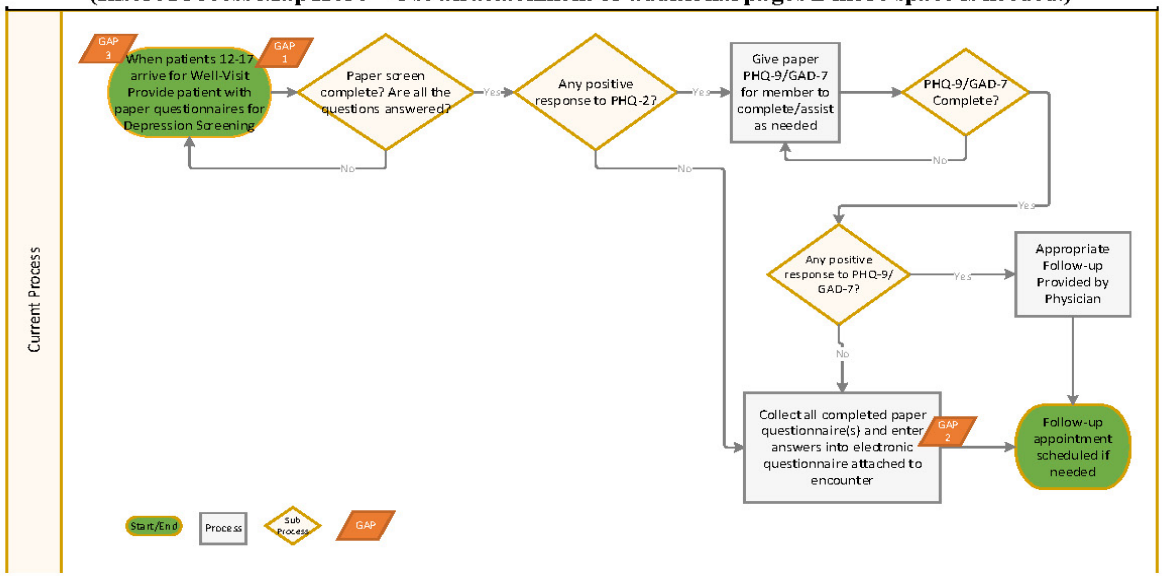
Managed Care Organization (MCO) Information	
MCO Name	Kaiser Foundation Health Plan of Colorado
PIP Title	*Depression Screening and Follow–up After a Positive Depression Screen*
Contact Name	Cathy Johnson/ Jo Anne Doherty
Contact Title	Regulatory Consultant/ Senior Consultant Medicaid & Charitable Programs
Email Address	Catherine.m.johnson@kp.org /Joanne.t.doherty@kp.org
Telephone Number	303-358-3469/303-681-5082
Submission Date	June 4, 2021
Resubmission Date (if applicable)	

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Process Map – *Depression Screening*

- Map the current process for members to receive ***Depression Screening*** at the narrowed focus level.
- Document each step of the process and highlight in yellow the steps within the process that have been identified as gaps or opportunities for improvement.
- Refer to Section 4 of the *Rapid-Cycle Performance Improvement Project (PIP) Reference Guide, Version 6–2* (Module 2—Intervention Determination) for information on how to complete a process map.

(Insert Process Map Here—Use an attachment or additional pages if more space is needed.)



State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Failure Modes and Effects Analysis (FMEA) – *Depression Screening*

Instructions: In Table 1a, document the Failure Mode(s), Failure Cause(s), and Failure Effects(s) for the steps from the ***Depression Screening*** process map that were identified as a gap or opportunity for improvement.

- The steps in this table should be listed based on their potential for impacting the SMART Aim (i.e., the step having the greatest potential for impacting the SMART Aim should be listed first and the step having the lowest priority would be listed last.
- List at least two steps from the process map in the FMEA table.
- Use the same process map language for each step documented in the FMEA table.
- If multiple failure modes/causes/effects are entered for a step, use bullets to identify each one. Add additional rows to the table, if needed.
- Refer to Section 4 of the *Rapid-Cycle Performance Improvement Project (PIP) Reference Guide, Version 6–2* (Module 2—Intervention Determination) for information on how to complete the FMEA.

Table 1a—Failure Modes and Effects Analysis Table – *Depression Screening*

Steps from the Process Map	Failure Mode(s) (What could go wrong?)	Failure Cause(s) (Why would the failure happen?)	Failure Effect(s) (What are the consequences?)
Patients 12-17 arrive for Well-Visit Provide patient with paper questionnaires for Depression Screening	No questionnaire provided to the member	• Patient Arrives late • Physician is running behind	No screening for depression and member is suffering from depression – undiagnosed or no follow-up is provided
Collect all completed paper questionnaire(s) and enter answers into the electronic questionnaire attached to encounter	Questionnaire results collected on paper are not entered into the electronic medical record	• Paper Copy lost • Name not on the paper copy – unsure of the patient • Paper held to be entered later (during free-time, no free-time)	Screened for depression and member is positive but no documentation, no follow-up is provided

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

When patients 12-17 schedule Well-Visit, provide patient with paper questionnaires for Depression Screening	Only proactive outreach is for summer sports physicals, otherwise dependent on the member to remember to schedule their well-visit appointment	• Member doesn't know well-visit is needed • Member's well-visit is due outside of sports physical timeline	No screening for depression and member is suffering from depression – undiagnosed or no follow-up is provided

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Failure Mode Priority Ranking – *Depression Screening*

Instructions: In Table 2a, list from highest- to lowest-priority at least two failure modes identified in the ***Depression Screening*** FMEA.

- The MCO should assign a numeric ranking to the failure modes from the highest-priority level (number one) to the lowest-priority level (last failure mode selected) based on FMEA results.
- The failure modes with the highest priority should take precedence when determining interventions to test.
- The MCO should rank the failure modes based on their potential to impact the SMART Aim rather than ranking failure modes based on which may be easiest to change.
- The highest-priority failure modes are those with the most leverage for impacting the SMART Aim.
- Use the same language for the listed failure mode that was used in the FMEA table.

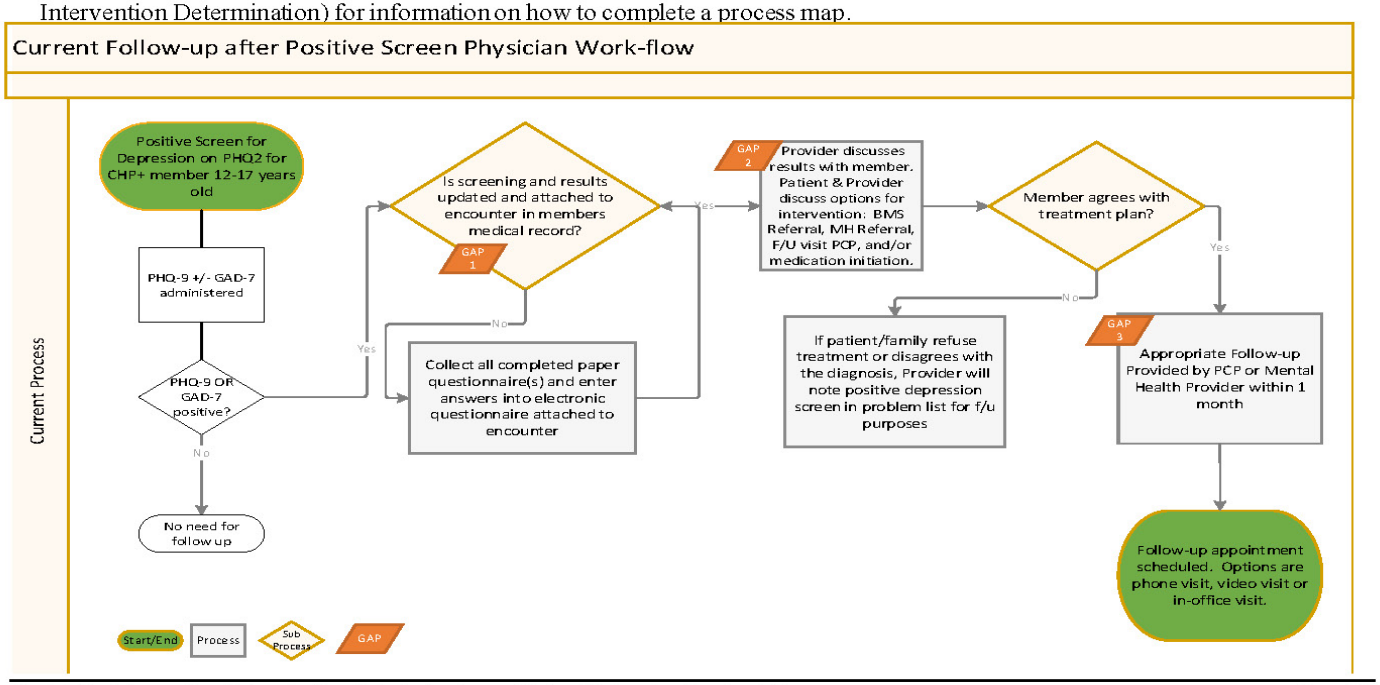
Table 2a—Failure Mode Priority Ranking – *Depression Screening*

Priority Ranking	Failure Modes
1	No questionnaire provided to the member
2	Questionnaire results are not always being attached to the encounter
3	Only do summer sports physical outreach, dependent on the member to remember to schedule their well-visit appointment

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Process Map – *Follow–up After a Positive Depression Screen*

- Map the current process for members to receive ***Follow–up After a Positive Depression Screen*** at the narrowed focus level.
- Document each step of the process and highlight in yellow the steps within the process that have been identified as gaps or opportunities for improvement.
- Refer to Section 4 of the *Rapid-Cycle Performance Improvement Project (PIP) Reference Guide, Version 6–2* (Module 2—Intervention Determination) for information on how to complete a process map.



State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Failure Modes and Effects Analysis (FMEA) – *Follow–up After a Positive Depression Screen*

Instructions: In Table 1b, document the Failure Mode(s), Failure Cause(s), and Failure Effects(s) for the steps from the ***Follow–up After a Positive Depression Screen*** process map that were identified as a gap or opportunity for improvement.

- The steps in this table should be listed based on their potential for impacting the SMART Aim (i.e., the step having the greatest potential for impacting the SMART Aim should be listed first and the step having the lowest priority would be listed last.
- List at least two steps from the process map in the FMEA table.
- Use the same process map language for each step documented in the FMEA table.
- If multiple failure modes/causes/effects are entered for a step, use bullets to identify each one. Add additional rows to the table, if needed.
- Refer to Section 4 of the *Rapid-Cycle Performance Improvement Project (PIP) Reference Guide, Version 6–2* (Module 2—Intervention Determination) for information on how to complete the FMEA.

Table 1b—Failure Modes and Effects Analysis Table – *Follow–up After a Positive Depression Screen*

Steps from the Process Map	Failure Mode(s) (What could go wrong?)	Failure Cause(s) (Why would the failure happen?)	Failure Effect(s) (What are the consequences?)
PHQ9 +/- GAD7 administered	Follow up questionnaire not administered in response to PHQ-2	• PHQ-2 result not seen by rooming staff/provider • PHQ-2 result not recognized as positive by rooming staff/provider	• Incomplete screening process • Missed opportunity to diagnose and treat
Screening results updated and attached to the encounter in the member's medical record?	The results are not updated in the member's medical record	• Staff forgot to input results • Paper Questionnaire with results was lost	• Member doesn't receive treatment • Missed diagnosis

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

		• Patient's name was not on the paper form, staff forgot who it belonged to	
Provider discusses results with member	Provider does not see the positive screen	Results not available at time of visit Questionnaire not complete by time provider enters room Provider error/oversight	Missed opportunity to diagnose and treat
Appropriate follow up provided by PCP or MH provider within one month	Member does not show up for appointment Member does not pick up prescription Member does not receive follow up call	Lack of transportation Lack of member insight Lack of money for meds Incorrect contact information on chart Staff/provider does not outreach after no-show	Missed opportunity to treat

Failure Mode Priority Ranking – *Follow–up After a Positive Depression Screen*

Instructions: In Table 2b, list from highest- to lowest-priority at least two failure modes identified in the ***Follow–up After a Positive Depression Screen*** FMEA.

- The MCO should assign a numeric ranking to the failure modes from the highest-priority level (number one) to the lowest-priority level (last failure mode selected) based on FMEA results.
- The failure modes with the highest priority should take precedence when determining interventions to test.
- The MCO should rank the failure modes based on their potential to impact the SMART Aim rather than ranking failure modes based on which may be easiest to change.
- The highest-priority failure modes are those with the most leverage for impacting the SMART Aim.
- Use the same language for the listed failure mode that was used in the FMEA table.

Table 2b—Failure Mode Priority Ranking – *Follow–up After a Positive Depression Screen*

Priority Ranking	Failure Modes

Module 2—Intervention Determination Submission Form—State of Colorado—Version 6–2 Page | 8

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Failure Mode Priority Ranking – *Follow–up After a Positive Depression Screen*

Instructions: In Table 2b, list from highest- to lowest-priority at least two failure modes identified in the ***Follow–up After a Positive Depression Screen*** FMEA.

- The MCO should assign a numeric ranking to the failure modes from the highest-priority level (number one) to the lowest-priority level (last failure mode selected) based on FMEA results.
- The failure modes with the highest priority should take precedence when determining interventions to test.
- The MCO should rank the failure modes based on their potential to impact the SMART Aim rather than ranking failure modes based on which may be easiest to change.
- The highest-priority failure modes are those with the most leverage for impacting the SMART Aim.
- Use the same language for the listed failure mode that was used in the FMEA table.

Table 2b—Failure Mode Priority Ranking – *Follow–up After a Positive Depression Screen*	
1	The results are not updated in the member's medical record
2	Follow up questionnaire not administered in response to PHQ-2
3	Provider does not see the positive screen
4	Member does not show up for appointment

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

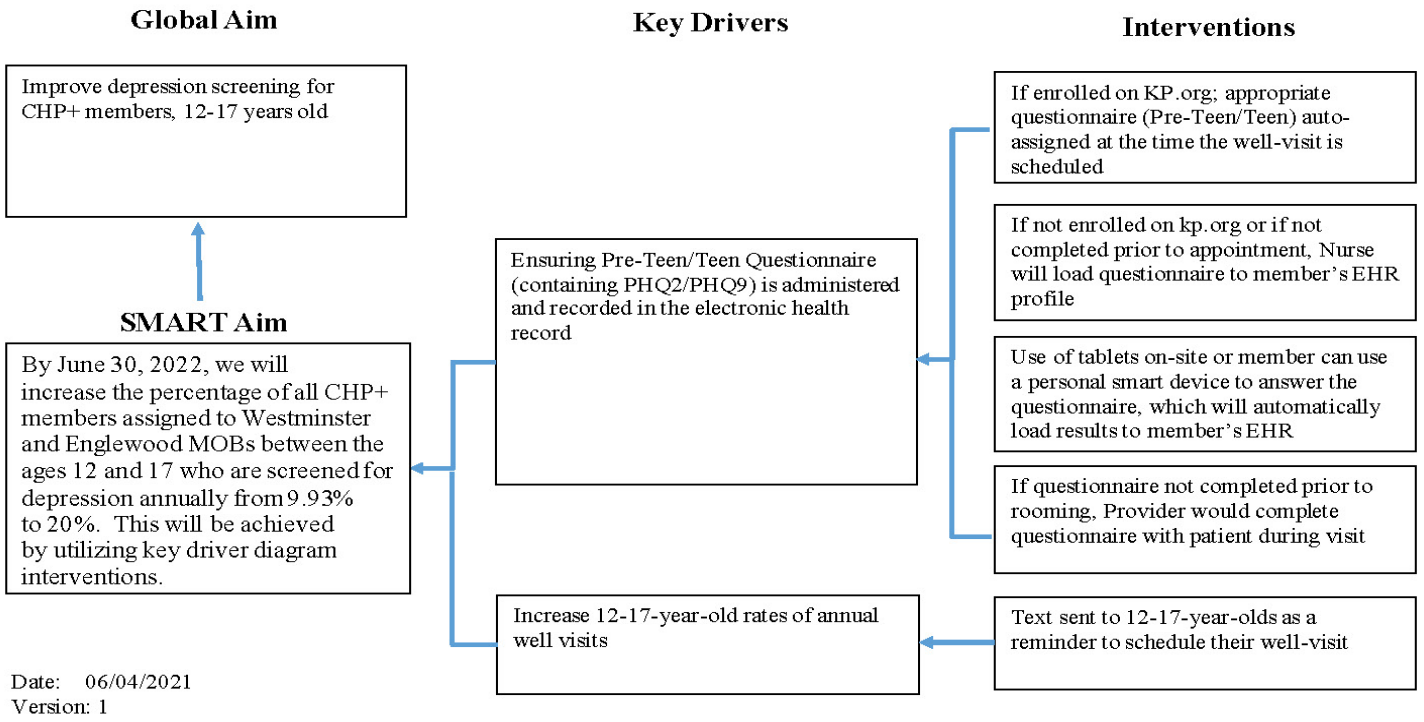
Key Driver Diagrams

Instructions: Update the ***Depression Screening*** and ***Follow–up After a Positive Depression Screen*** key driver diagrams from Module 1.

- At this stage of the PIP process, the MCO should use the findings from the process map, FMEA, and failure mode ranking to update drivers and interventions in each key driver diagram, as necessary. The MCO should ensure that the interventions are culturally and linguistically appropriate for the targeted population.
- Single interventions can address more than one key driver. Add additional arrows as needed.
- After passing Module 3 for each planned intervention and completing the testing of each intervention, the MCO should update the appropriate key driver diagram to reflect the status of each tested intervention (adapted, adopted, abandoned, or continue testing). The MCO should use the following color coding to distinguish the intervention status:
  - 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.
- The finalized ***Depression Screening*** and ***Follow–up After a Positive Depression Screen*** key driver diagrams will be submitted at the end of the PIP with Module 4.

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

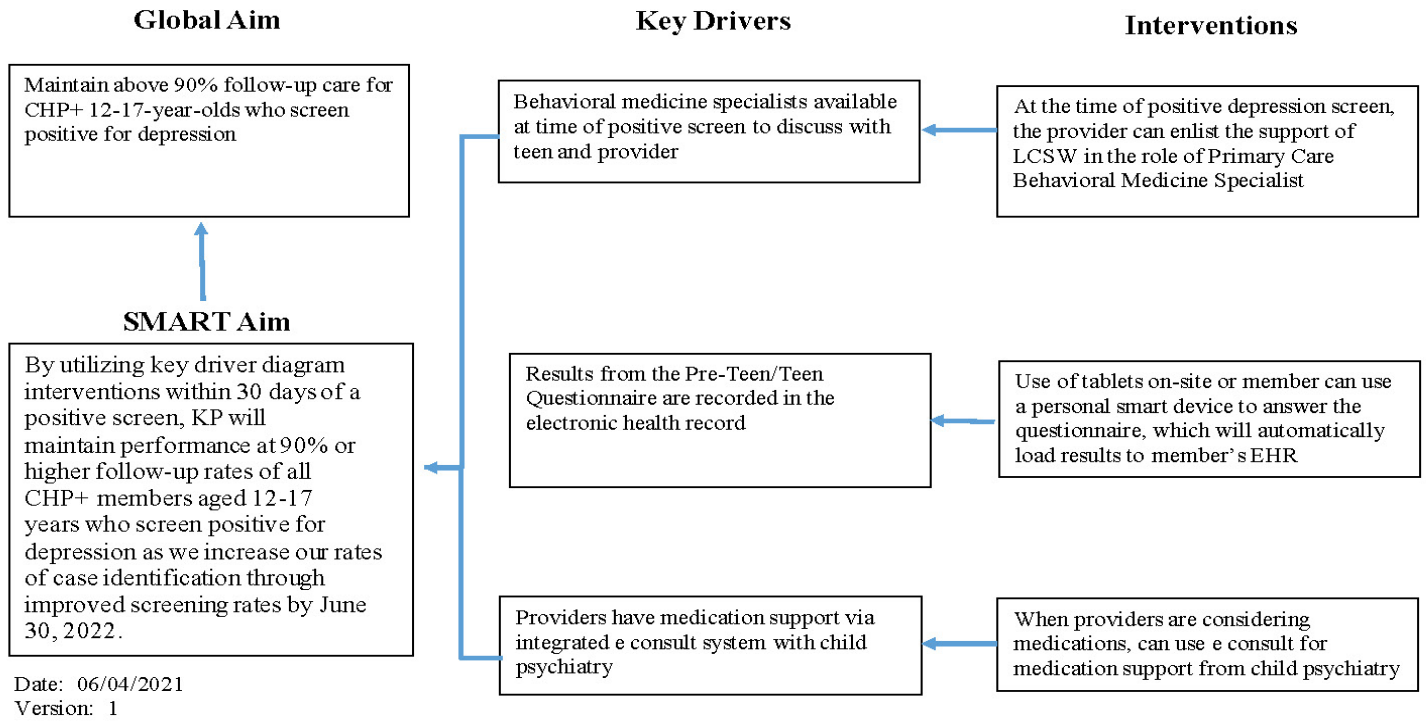
Key Driver Diagram– *Depression Screening*



Date: 06/04/2021
Version: 1

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

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



Date: 06/04/2021
Version: 1

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for **Kaiser Permanente**

Managed Care Organization (MCO) Information	
MCO Name	Kaiser Foundation Health Plan of Colorado
PIP Title	*Depression Screening and Follow–up After a Positive Depression Screen*
Intervention Name:	Auto-Assignment of Depression Screening Questionnaire
Contact Name	Jo Anne Doherty / Liz Chapman
Contact Title	Senior Consultant Medicaid & Charitable Programs/Project Manager
Email Address	joanne.t.doherty@kp.org; elizabeth.chapman@kp.org
Telephone Number	303-681-5082; 303-817-4379
Submission Date	August 6, 2021
Resubmission Date (if applicable)	

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Intervention Testing Plan

Instructions:

- In Table 1, provide the specific details about the intervention including the intervention being tested; outcome (***Depression Screening*** or ***Follow–up After a Positive Depression Screen***), failure mode, and key driver addressed; step-by-step process to conduct the intervention test; and the predicted results.
- If the intervention was documented in the Module 2 submission form, use the same language to describe the key driver, failure mode, and intervention.
- If the intervention was not included the Module 2 submission form, the intervention should be added to the final key driver diagram in Module 4.

Table 1—Intervention Plan	
Intervention Being Tested	Increase documentation of depression screening in the EHR by sending CHP+ patients age 12-17 who are scheduled for well visits at the Englewood and Westminster Medical Offices a secure message with a link to an electronic questionnaire that contains PHQ-2/9 questions, and which populates their responses into the EHR.
Outcome Addressed	☒ *Depression Screening* ☐ *Follow–up After a Positive Depression Screen*
Failure Mode Addressed	No evidence of questionnaire provided to the member
Key Driver Addressed	Ensuring Pre-Teen/Teen Questionnaire (containing PHQ2/PHQ9) is administered and recorded in the Electronic Health Record (EHR)
Intervention Process Steps (*List the step-by-step process required to carry out this intervention.*)	1. When a well-visit is scheduled, the appropriate questionnaire is auto assigned to the member 2. If the member is registered on KP.org, the questionnaire is emailed to the member along with a request that the member complete it prior to the appointment 3. Provider reviews results of questionnaire during the well-visit

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Table 1—Intervention Plan	
What are the predicted results of this test?	The percentage of well visits that have a documented PHQ-2/9 associated with them will increase for CHP+ members 12-17-year-old at the Englewood and Westminster Medical Offices.

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Intervention Effectiveness Measure

Instructions:

- In Table 2, provide the intervention measure title, numerator description, and denominator description. This measure should specifically measure the intervention's effectiveness.
- In Table 3, complete the information for how data will be collected for the intervention test. If applicable, include a blank copy of the data collection tool (e.g., spreadsheets, tracking log).
- Refer to Section 5 of the *Rapid-Cycle Performance Improvement Project (PIP) Reference Guide, Version 6–2* ("Module 3—Intervention Testing").

Table 2—Intervention Effectiveness Measure	
Intervention Measure Title	Auto-Assign Questionnaire (Pre-Teen/Teen) at the time of well visit
Numerator Description	Number of CHP+ Members 12 -17 years of age, who have a well-visit at the Westminster or Englewood Medical Offices and who and were screened for clinical depression in association with that visit using an age-appropriate standardized questionnaire (PHQ2/PHQ9) each month starting January 1, 2021
Denominator Description	Number of CHP+ Members 12 -17 years of age, who have a well-visit at the Westminster or Englewood Medical Offices each month starting January 1, 2021

Table 3—Intervention Effectiveness Measure Data Collection Process	
Describe the Data Elements	Membership data, age, line of business, patient and provider-entered responses to PHQ-2/9 screening questions, visit and provider information including date, place of service and visit type
Describe the Data Sources	Data is sourced from Kaiser Permanente's EHR (Epic) which populates a data warehouse known as Clarity, which is used for reporting purposes.
Describe how Data will be Collected	Well visit data is documented in our EHR by the KP staff and providers who schedule and conduct those visits.

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Table 3—Intervention Effectiveness Measure Data Collection Process	
	PHQ-2/9 responses may be directly entered by KP members (via online questionnaire on our patient portal) or by KP staff and providers who enter patients verbal or paper-based responses into the visit documentation.
Describe how often Data will be Collected and how data completeness will be addressed (e.g. – real-time data exchange with narrowed focus entity)	The data being evaluated in this PIP is entered into the EHR by staff, providers, and patients (via the patient portal referenced above) and updates the data warehouse used for reporting on a daily basis. It is not affected by claims data lag issues. Historically, a significant fraction of depression screening was conducted via paper tools and many responses (especially negative responses) were not subsequently transcribed into the EHR. This intervention directly addresses that data completeness issue by increasing the number of depression screens directly documented in the EHR by the patients themselves.

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Managed Care Organization (MCO) Information	
MCO Name	Kaiser Foundation Health Plan of Colorado
PIP Title	*Depression Screening and Follow–up After a Positive Depression Screen*
Intervention Name:	Use of Electronic Tablets for Depression Screening Questionnaire
Contact Name	Liz Chapman / Jo Anne Doherty
Contact Title	Senior Consultant Medicaid & Charitable Programs/Project Manager
Email Address	joanne.t.doherty@kp.org; elizabeth.chapman@kp.org
Telephone Number	303-681-5082; 303-817-4379
Submission Date	12/15/2021
Resubmission Date (if applicable)	

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Intervention Testing Plan

Instructions:

- In Table 1, provide the specific details about the intervention including the intervention being tested; outcome (***Depression Screening*** or ***Follow–up After a Positive Depression Screen***), failure mode, and key driver addressed; step-by-step process to conduct the intervention test; and the predicted results.
- If the intervention was documented in the Module 2 submission form, use the same language to describe the key driver, failure mode, and intervention.
- If the intervention was not included the Module 2 submission form, the intervention should be added to the final key driver diagram in Module 4.

Table 1—Intervention Plan	
Intervention Being Tested	Increase documentation of depression screening in the EHR by offering patients age 12-17 (including CHP+ patients) who present for well visits at the Englewood and Westminster Medical Offices PHQ-2/9 questionnaires on electronic tablets which populate their responses into the EHR.
Outcome Addressed	☒ *Depression Screening* ☐ *Follow–up After a Positive Depression Screen*
Failure Mode Addressed	No evidence of questionnaire provided to the member
Key Driver Addressed	Ensuring Pre-Teen/Teen Questionnaire (containing PHQ2/PHQ9) is administered and recorded in the Electronic Health Record (EHR)
Intervention Process Steps (*List the step-by-step process required to carry out this intervention.*)	1. Patient arrives for well-visit, and questionnaire is not completed on KP.org prior to the visit 2. Primary Care Rooming Staff will check to see if visit questionnaires are completed 3. If questionnaires are not complete, then tablet will be assigned to patient to complete prior visit with PCP

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Table 1—Intervention Plan	
	a. Note: if PHQ2 is positive, then PHQ9 will automatically appear on tablet for patient to complete as well 4. Questionnaire results are captured directly into EMR with use of tablet 5. Provider reviews results of questionnaire during the well-visit
What are the predicted results of this test?	The percentage of well visits that have a documented PHQ-2/9 associated with them will increase for CHP+ members 12-17-year-old at the Englewood and Westminster Medical Offices.

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Intervention Effectiveness Measure

Instructions:

- In Table 2, provide the intervention measure title, numerator description, and denominator description. This measure should specifically measure the intervention's effectiveness.
- In Table 3, complete the information for how data will be collected for the intervention test. If applicable, include a blank copy of the data collection tool (e.g., spreadsheets, tracking log).
- Refer to Section 5 of the *Rapid-Cycle Performance Improvement Project (PIP) Reference Guide, Version 6–2* ("Module 3—Intervention Testing").

Table 2—Intervention Effectiveness Measure	
Intervention Measure Title	Use of Electronic Tablets for Depression Screening Questionnaire
Numerator Description	Number of Members 12 -17 years of age (including CHP+ patients), who have a well-visit at the Westminster or Englewood Medical Offices and who and were screened for clinical depression in association with that visit using an age-appropriate standardized questionnaire (PHQ2/PHQ9) each month starting January 1, 2021
Denominator Description	Number of Members 12 -17 years of age (including CHP+ patients), who have a well-visit at the Westminster or Englewood Medical Offices each month starting January 1, 2021

Table 3—Intervention Effectiveness Measure Data Collection Process	
Describe the Data Elements	Membership data, age, line of business, patient and provider-entered responses to PHQ-2/9 screening questions, visit and provider information including date, place of service and visit type, modality of completion
Describe the Data Sources	Data is sourced from Kaiser Permanente's EHR (Epic) which populates a data warehouse known as Clarity, which is used for reporting purposes.
Describe how Data will be Collected	Well visit data is documented in our EHR by the KP staff and providers who schedule and conduct those visits.

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Submission Form
Depression Screening and Follow–up After a Positive Depression Screen
for Kaiser Permanente

Table 3—Intervention Effectiveness Measure Data Collection Process	
	PHQ-2/9 responses may be directly entered by KP members (via online questionnaire on our patient portal) or by KP staff and providers who enter patients verbal or paper-based responses into the visit documentation, or by patients through the electronic tablet at the time of the visit.
Describe how often Data will be Collected and how data completeness will be addressed (e.g. – real-time data exchange with narrowed focus entity)	The data being evaluated in this PIP is entered into the EHR by staff, providers, and patients (via the patient portal referenced above) and updates the data warehouse used for reporting on a daily basis. It is not affected by claims data lag issues. Historically, a significant fraction of depression screening was conducted via paper tools and many responses (especially negative responses) were not subsequently transcribed into the EHR. This intervention directly addresses that data completeness issue by increasing the number of depression screens directly documented in the EHR by the patients themselves.

Appendix B. Module Validation Tools

Appendix B contains the Module Validation Tools provided by HSAG.

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Validation Tool
Depression Screening and Follow–Up After a Positive Depression Screen
for Kaiser Permanente

Criteria	Score	HSAG Feedback and Recommendations
1. The MCO included process maps for *Depression Screening* and *Follow–Up After a Positive Depression Screen* that clearly illustrate the step-by-step flow of the current processes for the narrowed focus.	☒ Met ☐ Not Met	
2. The prioritized steps in the process maps identified as gaps or opportunities for improvement were highlighted in yellow.	☒ Met ☐ Not Met	
3. The steps documented in each FMEA table aligned with the steps in the corresponding process map that were highlighted in yellow as gaps or opportunities for improvement.	☒ Met ☐ Not Met	
4. The failure modes, failure causes, and failure effects were logically linked to the steps in each FMEA table.	☒ Met ☐ Not Met	
5. The MCO prioritized the listed failure modes and ranked them from highest to lowest in each Failure Mode Priority Ranking table.	☒ Met ☐ Not Met	

State of Colorado
Performance Improvement Project (PIP)
Module 2 — Intervention Determination Validation Tool
Depression Screening and Follow–Up After a Positive Depression Screen
for Kaiser Permanente

Criteria	Score	HSAG Feedback and Recommendations
6. The key drivers and interventions in each key driver diagram were updated according to the results of the corresponding process map and FMEA. In each key driver diagram, the MCO included interventions that were culturally and linguistically appropriate and have the potential for impacting the SMART Aim goal.	☒ Met ☐ Not Met	
Additional Recommendations: None.		

Intervention Determination (Module 2)

☒ Pass

Date: June 28, 2021

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Validation Tool
Depression Screening and Follow–Up After a Positive Depression Screen
for Kaiser Permanente

Intervention: Auto-Assignment of Depression Screening Questionnaire

Criteria	Score	HSAG Feedback and Recommendations
1. The Intervention Plan specified the outcome to be addressed and included at least one corresponding key driver and one failure mode from Module 2.	☒ Met ☐ Not Met	
2. The MCO included all components for the Intervention Plan.	☒ Met ☐ Not Met	
3. The *Intervention Effectiveness Measure(s)* was appropriate for the intervention.	☒ Met ☐ Not Met	
4. The data collection process was appropriate for the intervention effectiveness measure(s) and addressed data completeness.	☒ Met ☐ Not Met	
Additional Recommendations: None.		

Intervention Testing (Module 3)

☒ Pass

Date: August 31, 2021

State of Colorado
Performance Improvement Project (PIP)
Module 3 — Intervention Testing Validation Tool
Depression Screening and Follow–Up After a Positive Depression Screen
for Kaiser Permanente

Intervention: Use of Electronic Tablets for Depression Screening Questionnaire

Criteria	Score	HSAG Feedback and Recommendations
1. The Intervention Plan specified the outcome to be addressed and included at least one corresponding key driver and one failure mode from Module 2.	☒ Met ☐ Not Met	
2. The MCO included all components for the Intervention Plan.	☒ Met ☐ Not Met	
3. The *Intervention Effectiveness Measure(s)* was appropriate for the intervention.	☒ Met ☐ Not Met	
4. The data collection process was appropriate for the intervention effectiveness measure(s) and addressed data completeness.	☒ Met ☐ Not Met	
Additional Recommendations: None.		

Intervention Testing (Module 3)

☒ Pass

Date: January 14, 2022