



2022 External Quality Review

Performance Improvement Projects

Home State Health

Measurement Period: Calendar Year 2021

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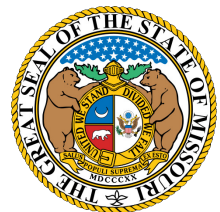


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1.0 OVERVIEW

The Department of Social Services, Missouri HealthNet Division (MHD) is officially designated with administration, provision, and payment for medical assistance under the Federal Medicaid (Title XIX) and the State Children's Health Insurance (CHIP)(Title XXI) programs. Missouri has an approved combination CHIP under Title XXI of the Social Security Act. Missouri's CHIP uses funds provided under Title XXI to expand eligibility under Missouri's State Medicaid Plan and obtain coverage that meets the requirements for a separate child health program. The MHD operates a Health Maintenance Organization (HMO) style Managed Care program called Missouri (MO) HealthNet Managed Care (hereinafter stated "Managed Care"). Managed Care is extended statewide in four regions: Central, Eastern, Western, and Southwestern, to improve accessibility and quality of healthcare services to all the eligible populations while reducing the cost of providing that care. Participation in Managed Care is mandatory for the eligible groups within the regions in operation. Coverage under CHIP is provided statewide through the Managed Care delivery system. The MHD began enrolling a new population group called Adult Expansion Group (AEG) in the Managed Care effective Oct 1, 2021, under section 1932(a) to include low-income adults ages nineteen to sixty-four. The total number of Managed Care (Medicaid, CHIP, and AEG) enrollees in the end of SFY 2022 was 1,011,719, representing an increase of 25.09% compared to the end of SFY 2021.

The MHD contracts with Managed Care Organizations (MCOs) to provide health care services to its Managed Care enrollees. Home State Health is one of the three MCOs operating in MO.

The MHD contracted with PRO Team Management Healthcare Business Solutions, LLC (hereinafter stated PTM), an External Quality Review Organization (EQRO), to conduct an External Quality Review (EQR).¹ The review period for EQR 2022 is the calendar year (CY)/measurement year (MY) 2020.

2.0 OBJECTIVE

A PIP is a project conducted by an MCO designed to achieve significant improvement sustained over time in health outcomes and enrollee satisfaction. A PIP may be designed to change behavior at a member, provider, or MCO/system level. The MHD requires Home State Health to conduct performance improvement projects (PIPs) that focus on clinical

¹ An EQR is the analysis and evaluation of aggregated information on quality, timeliness, and access to the health care services that an MCO, or its contractors, furnish to Medicaid beneficiaries (42 Code of Federal Regulations-CFR-430.320).

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and non-clinical areas each year as a part of Home State Health's quality assessment and performance improvement (QAPI) program (42 CFR 438.330, 457.1240(b)/MHD contract, section 2.18.8 (d)):

- Clinical PIP: Improving Childhood Immunization Status (HEDIS² CIS Combo 10 rate).
- Nonclinical PIP: Improving Oral Health (HEDIS ADV rate).

The Code of Federal Regulations (CFR), 42 CFR 438.358(b)(1)(i) requires an EQRO to conduct a validation of performance improvement projects (PIPs) in accordance with 438.330(b)(1) that were underway during the preceding 12 months. Accordingly, PTM validated the two PIPs submitted by Home State Health and assessed whether the PIPs used sound methodology in their design, implementation, analysis, and reporting.

3.0 TECHNICAL METHOD

PTM followed the guidelines established by the Centers for Medicare and Medicaid Services (CMS) EQR Protocol 1, Validation of PIPs. PTM referred to the MHD contract, section 2.18.8(d), for the requirements and confirmed the scope of work with the MHD. PTM requested Home State Health to upload its PIP documentation on PTM's web-based secure file storage site by Aug 30, 2022. PTM requested additional information from Home State Health via electronic communication by Oct 7, 2022.

The PIPs validation process included the following activities (Table 1):

Table 1. PIP Validation Process	
Activity 1: Assess PIP Methodology	<p>Step 1. Review the selected PIP topic.</p> <p>Step 2. Review the PIP aim statement.</p> <p>Step 3. Review the identified PIP population.</p> <p>Step 4. Review sampling methods (if sampling is used).</p> <p>Step 5. Review the selected PIP variables and performance measures.</p> <p>Step 6. Review data collection procedures: Administrative data collection, medical record review, and Hybrid data collection.</p> <p>Step 7. Review data analysis and interpretation of PIP results.</p> <p>Step 8. Assess the improvement strategies (Model for Improvement and Plan-Do-Study-Act (PDSA) process: rapid-cycle PIPs).</p>

² Healthcare Effectiveness Data and Information Set (HEDIS®) is a registered trademark of the National Committee for Quality Assurance (NCQA).

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	Step 9. Assess the likelihood that significant and sustained improvement occurred.
Activity 2: Perform overall validation and reporting of PIP results	Level of Confidence: High; Moderate; Low; and No Confidence
Activity 3: Verify PIP findings	Optional (It will be conducted only if the MHD has concerns about data integrity and requires EQRO to verify the data produced by MCO.)

PTM evaluated each step included in the PIP validation process and assigned a score of Fully Met (●), Partially Met (●), or Not Met (●) based on the definitions adapted from the CMS EQRO Protocol 3 as applicable to the PIPs (refer to Appendices A and B). If multiple criteria evaluated in any step received a combination of fully met, partially met, and not met scores, then the overall score assigned was “Partially Met,” or a decision was based on the scores assigned to the critical components.

PTM assessed the overall validity and reliability of the PIP methods and findings to determine whether it has confidence in the results. The validation rating was based on the PTM's assessment of whether Home State Health adhered to an acceptable methodology for all phases of design (PIP topic, aim statement, selection of the population, sampling, selection of PIP variables and performance measures, selection of intervention-key driver diagram); data collection; data analysis; an interpretation of the PIP results; produced significant evidence of improvement based on a continuous quality improvement philosophy; and reflected an understanding of lessons learned and opportunities for improvement. (Statistically significant change in performance is noted when p value ≤ 0.05).

The level of confidence is defined as follows:

- High Confidence = The PIP was methodologically sound, achieved the SMART (Specific, Measurable, Attainable, Relevant, Time-bound) Aim, and the demonstrated improvement was clearly linked to the quality improvement processes implemented.
- Moderate Confidence = The PIP was methodologically sound, achieved the SMART Aim, and some quality improvement processes were clearly linked to the demonstrated improvement; however, there was not a clear link between all quality improvement processes and the demonstrated improvement.
- Low Confidence = (A) The PIP was methodologically sound; however, the SMART Aim was not achieved; or (B) The SMART Aim was achieved; however, the quality

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improvement processes and interventions were poorly executed and could not be linked to the improvement.

- No Confidence = The SMART Aim of the PIP was not achieved, and the PIP methodology was not sound/acceptable.

4.0 PIP DESCRIPTION

This section briefly describes the PIP design, intervention(s), and results submitted by Home State Health. (Note: Home State Health submitted its previously submitted MY 2020 PIP with additional data for MY 2021. PTM consulted with the MHD, and the MHD decided to allow Home State Health additional time for resubmission of an updated PIP for MY 2021. PTM does not change Home State Health's PIPs description other than formatting or minor corrections.)

4.1 Clinical PIP: Improving Childhood Immunization Status

The MHD contract section 2.18.8(d)(2) requires Home State Health to conduct a PIP to improve HEDIS CIS Combo 10 yearly by at least 2% points in alignment with the Quality Improvement Strategy. Vaccines and recommended doses in HEDIS CIS Combo 10 include DTaP (4); IPV (3); MMR (1); HiB (3); HepB (3); VZV (1); PCV (4); HepA (1); RV (2/3); and Flu (2).

4.1.1 Summary

Table 2(A-D) summarizes the clinical PIP information submitted by Home State Health utilizing the worksheet in the CMS EQR Protocol 1.

Table 2(A-D). Summary: Improving Childhood Immunization Status

2A. General PIP Information

PIP Title: Improving Childhood Immunization Status (HEDIS CIS Combo 10 rate)	
PIP Aim Statement: Increase Home State Health's NCQA HEDIS Childhood Immunization Status (CIS) Combo 10 rate by 1% by December 31, 2021.	
Was the PIP State-mandated, collaborative, statewide, or plan choice?	
<input checked="" type="checkbox"/>	State-mandated (State required plans to conduct a PIP on this specific topic)
<input type="checkbox"/>	Collaborative (plans worked together during the planning or implementation phases)
<input checked="" type="checkbox"/>	Statewide (the PIP was conducted by all MCOs within the state)
<input type="checkbox"/>	Plan choice (State allowed the plan to identify the PIP topic)
Target age group (check one):	
<input checked="" type="checkbox"/>	Children only (ages 0–17)*
<input type="checkbox"/>	Adults only (age 18 and over)
<input type="checkbox"/>	Both adults and children

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*If PIP uses different age thresholds for children, specify the age range here: 0-2 years.

Target population description, such as duals, LTSS, or pregnant women (specify):

The study population for the PIP included all Home State Health Medicaid members who turned 2 years of age during the measurement year who met the HEDIS eligibility requirements. The interventions were applied to all eligible members aged 0-2 years at the time of each intervention. The Medicaid population included TANF, CHIP, and Foster Care members.

In addition, a targeted rapid cycle improvement initiative for High-Risk pregnant mothers and their newborns was included in this PIP.

Programs: ☐ Medicaid (Title XIX) only ☐ CHIP (Title XXI) only ☒ Medicaid and CHIP

2B. Improvement Strategies or Interventions (Changes tested in the PIP)

☒ Member-focused interventions (member interventions are those aimed at changing member practices or behaviors, such as financial or non-financial incentives, education, and outreach): Pacify application (app) vendor was contacted to enhance the robustness of push notifications through the app to remind new moms about the importance of immunizations. Care Management re-education on the importance of addressing immunizations with new moms.

☒ Provider-focused interventions (provider interventions are those aimed at changing provider practices or behaviors, such as financial or non-financial incentives, education, and outreach): Incentivize providers to reach out and address member clinical gaps proactively.

☐ MCO-focused interventions/system changes (MCO/system change interventions are aimed at changing MCO operations; they may include new programs, practices, or infrastructures, such as new patient registries or data tools): Care Management re-education on the importance of addressing immunizations with new moms. This intervention was not substantiated so PTM marked as N/A.

2C. Performance Measures and Results

Performance measures (be specific and indicate measure steward and NQF number if applicable)	Baseline year	Baseline sample size and rate	Most recent remeasurement year (if applicable/ Not applicable-PIP is in planning or implementation phase, results not available)	Most recent remeasurement sample size and rate (if applicable)	Demonstrated performance improvement (Yes/No)	Statistically significant change in performance (Yes/No) Specify p-value (<0.01/<0.05)
HEDIS CIS Combo 10 (NQF 0038)-primary measure	MY 2020	26.0% No sampling	MY 2021	26.3% No sampling	Yes	No (p=0.81034)

2D. PIP Validation Information

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Was the PIP validated? ☒ Yes/☐ No

"Validated" means EQRO reviewed all relevant parts of each PIP and made a determination as to its validity. In many cases, this will involve calculating a score for each relevant stage of the PIP and providing feedback and recommendations.

Validation phase (check all that apply):

☒ PIP submitted for approval ☐ Planning phase ☐ Implementation phase
☐ First remeasurement ☐ Second remeasurement ☐ Other (specify)

Validation rating: ☒ No confidence

"Validation rating" refers to the EQRO's overall confidence that the PIP adhered to an acceptable methodology for all phases of design and data collection, conducted accurate data analysis and interpretation of PIP results, and produced significant evidence of improvement.

EQRO recommendations for improvement of PIP: Home State Health must have a concise aim statement, have clarity on the concepts of target population/project population, PIP variables, and define secondary measures accurately. The data collection plan should be presented and linked to the data analysis plan. The interventions should tie to an improvement by correct analysis and interpretation using the PDSA cycles. (For details, refer to section 6.0)

4.1.2 PIP Description

Intervention: For MY 2021, the following interventions continued as part of this PIP:

1. Care Management (CM) re-education on the importance of addressing immunizations with new mothers: PTM noted that Home State Health did not provide information to authenticate this intervention.

2. Home State Health contacted the Pacify application (app) vendor to enhance the robustness of push notifications through the app to remind new mothers of the importance of immunizations. Pacify is a pregnancy support app that members can download on their phones. A member must interact with CM staff to access the app to obtain an access code. Enrollment in CM was not required. The app provided live support with a Lactation Consultant, a direct line to our care management team, a direct link to the 24-Hour Nurse Advice Line, healthy pregnancy education postings, and push notifications for healthcare reminders, including well-child visits and immunization reminders. Home State Health provided this app at no cost to its pregnant members, focusing on enrolling High-Risk pregnant members. A High-Risk pregnant member was identified by the Pregnancy Risk Screening Tool (Notification of Pregnancy Form), which incorporated information provided by the member/provider and claims information to stratify a member into a Low, Medium, or High-Risk pregnancy based on proprietary pregnancy risk algorithms. The app was

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available to the pregnant member after delivery up to the child's first birthday in English and Spanish.

3. **Provider Peak Performance Incentive:** This program was an initiative to incentivize providers to reach out and address member clinical gaps proactively. Providers submitted appropriate claims for services completed in November and December of 2021. The amount earned was in addition to standard provider pay-for-performance arrangements. Home State Health's provider support team communicated the program to all providers in the network. All received an email communication, and larger groups received the information during routine meetings with Home State Health. The target measures and incentives for MY 2021 included (Table 3):

Table 3. Provider Incentives MY 2021

Measure	Amount
Childhood Immunizations – Combo 10	\$35
Lead Screening	\$20
Well Care Visits Ages 3-11 Years	\$30
Well Care Visits Ages 12-17 Years	\$30
Well Care Visits Ages 18-21 Years	\$30
Well Child Visits Ages 15 to 30 Months	\$30
Well Child Visits First 15 Months of Life	\$30

Performance Measure/Variable: NCQA HEDIS CIS Combo 10 was the performance measure selected for the PIP. The numerator and denominator were defined as follows:

Numerator: Home State Health members in the denominator who met the measure specification requirements for CIS Combo 10 as defined by the HEDIS Technical Specifications.

Denominator: Home State Health members who turned 2 years of age during the measurement year, were continuously enrolled for the 12 months prior to their second birthday with no more than a 45-day gap in enrollment.

Home State Health reported secondary measurements for CIS Combo 10 monthly rates; the impact of CM and Pacify app; Measles, Mumps, Rubella (MMR), and Hepatitis sub measures; and Provider Peak Incentive.

Data collection: Data was reported using Home State Health's NCQA-certified HEDIS software, QSI-XL. Input into QSI-XL was from various sources (claims data from Enterprise Data Warehouse, supplemental data (ShowMeVax portal), and charts from the providers)

Findings: The data for the Pacify app intervention was divided into four categories:

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- New moms who were utilizing the Pacify app and also enrolled in care management.
- New moms who were enrolled in care management but not using the Pacify app.
- New moms who were utilizing the Pacify app but not enrolled in care management.
- New moms who had neither the Pacify app nor were enrolled in care management.

The Figures 1 and 2 below show the outcomes (MMR and Hepatitis A immunizations) within each category of member participation.

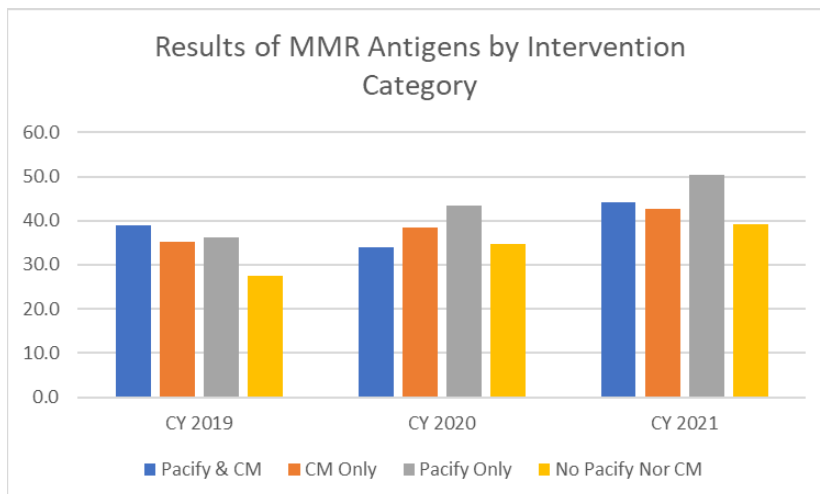


Figure 1. MMR Immunization Outcomes MY 2019-2021

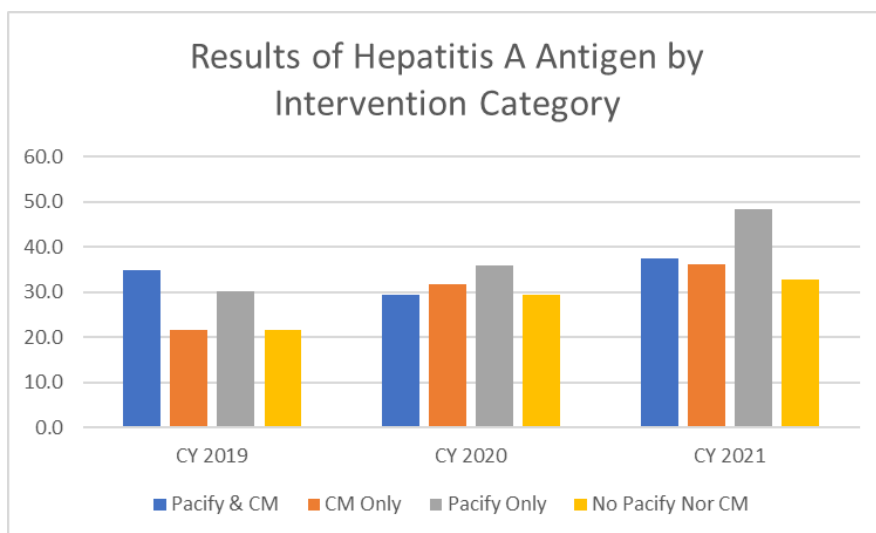


Figure 2. Hepatitis A Immunization Outcomes MY 2019-2021

Member satisfaction and utilization with the app were assessed to determine if members who had the app were utilizing it and were satisfied with the service. In MY 2020, Home State Health received 150 responses to a satisfaction survey and scored 4.9 out of 5 Stars.

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In MY 2021, Home State Health received 183 responses to the satisfaction survey resulting in 4.9 out of 5 Stars.

Provider Peak Incentive: The results were analyzed after the incentive period closed (and allowed for claims run-out). A total of 15 unique providers earned incentives by closing the gaps for 23 members. Home State Health stated that this intervention had a 0.22% impact on the overall HEDIS CIS Combo 10 rate.

Figure 3 tracks monthly administrative HEDIS CIS Combo 10 rates and final hybrid rates for MY 2019-2021. MY 2021 began with 5.83% lower rate than in MY 2020 and continued to remain lower throughout the year (administrative rates).

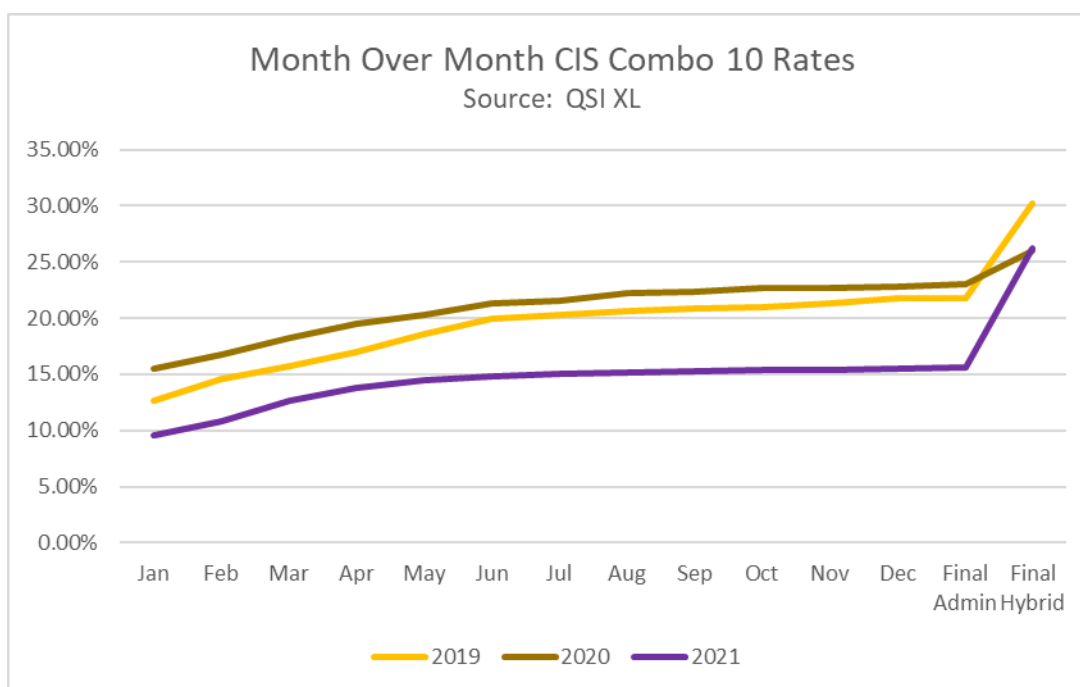


Figure 3. Monthly HEDIS CIS Combo Rates (MY 2019-2021)

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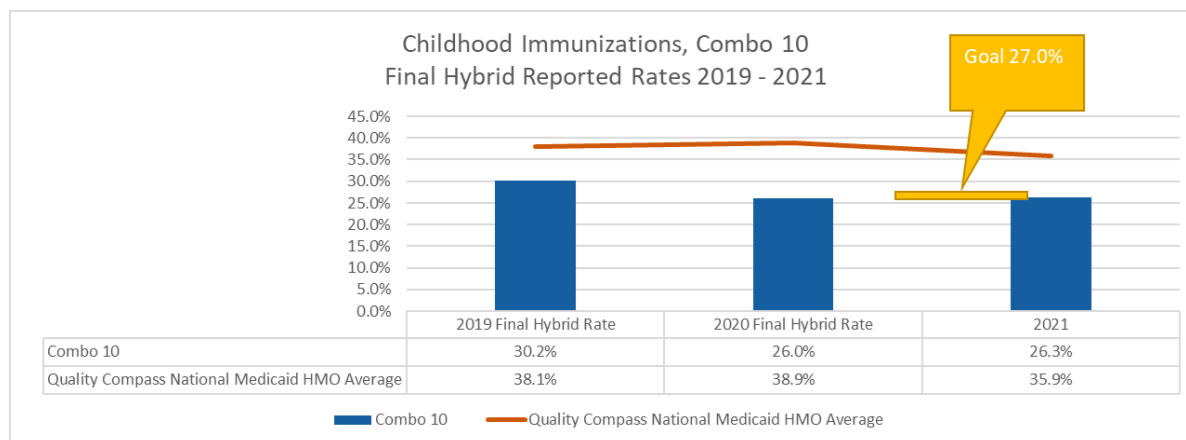


Figure 4. HEDIS CIS Combo 10 Final (Hybrid) Rates: MY 2019-2021

4.1.3 PIP Result

Home State Health did not meet the aim to increase the HEDIS CIS Combo 10 rate by 2% points from the previous year. The final HEDIS CIS Combo 10 rate (hybrid) marginally increased from 26% (MY 2020) to 26.3% (MY 2021) by 0.3% points (Figure 4). This increase was not of statistical significance ($P=0.81034$).

4.2 Nonclinical PIP: Improving Oral Health

The MHD contract section 2.18.8(d)(2) requires Home State Health to conduct a PIP to improve the HEDIS Annual Dental Visit (ADV) rate for 2-20 years old yearly by at least 2% points in alignment with the Quality Improvement Strategy.

4.2.1 Summary

Table 4(A-D) summarizes the nonclinical PIP information submitted by Home State Health in the format adopted from the CMS EQR Protocol 1.

Table 4(A-D). Summary: Improving Oral Health

4A. General PIP Information

PIP Title: Improving Oral Health (HEDIS ADV rate)	
PIP Aim Statement: Increase Home State Health's CY 2020 NCQA HEDIS Annual Dental Visit (ADV) rate by 1% by December 31, 2021.	
Was the PIP State-mandated, collaborative, statewide, or plan choice?	
<input checked="" type="checkbox"/>	State-mandated (State required plans to conduct a PIP on this specific topic)
<input type="checkbox"/>	Collaborative (plans worked together during the planning or implementation phases)
<input checked="" type="checkbox"/>	Statewide (the PIP was conducted by all MCOs within the state)
<input type="checkbox"/>	Plan choice (State allowed the plan to identify the PIP topic)

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Target age group (check one):

Children only (ages 0–17) Adults only (age 18 and over) ☒ *Both adults and children
 * Specify the age range here: Aged 0-20 years

Target population description, such as duals, LTSS, or pregnant women (specify):

The study population was all members in the Medicaid population (inclusive of TANF, CHIP, Foster Care, and AEG) who met eligibility criteria for the HEDIS ADV measure. The population was inclusive of members in all four regions.

A targeted Rapid Cycle improvement initiative for members assigned to a specific FQHC in the Eastern region was included in this PIP.

Programs: ☐ Medicaid (Title XIX) only ☐ CHIP (Title XXI) only ☒ Medicaid and CHIP

4B. Improvement Strategies or Interventions (Changes tested in the PIP)

☒ Member-focused interventions (member interventions are those aimed at changing member practices or behaviors, such as financial or non-financial incentives, education, and outreach): Home State Health's vendor, AlphaPointe, outreached to the noncompliant members for the annual dental visit via phone calls.

☒ Provider-focused interventions (provider interventions are those aimed at changing provider practices or behaviors, such as financial or non-financial incentives, education, and outreach): i. Home State Health collaborated with Affinia Healthcare, a large FQHC with three locations in the St. Louis area which offer dental care, to focus on dental interventions in the St. Louis area for Home State Health members, 2 to 9 years old, who were assigned to Affinia as their Primary Care Physician.

ii. Home State Health partnered with Big Smiles, which provided dental clinics in schools across Missouri.

☐ MCO-focused interventions/system changes (MCO/system change interventions are aimed at changing MCO operations; they may include new programs, practices, or infrastructures, such as new patient registries or data tools): N/A

4C. Performance Measures and Results

Performance measures (be specific and indicate measure steward and NQF number if applicable)	Baseline year	Baseline sample size and rate	Most recent remeasurement year (if applicable/ Not applicable-PIP is in planning or implementation phase, results not available)	Most recent remeasurement sample size and rate (if applicable)	Demonstrated performance improvement (Yes/No)	Statistically significant change in performance (Yes/No) Specify p-value (<0.01/<0.05)
HEDIS ADV-primary measure	MY 2020	41.39% No sampling	MY 2021	42.31% No sampling	Yes	Yes (P<0.00001)

4D. PIP Validation Information

Was the PIP validated? ☒ Yes / ☐ No

"Validated" means EQRO reviewed all relevant parts of each PIP and made a determination as to its validity. In many cases, this will involve calculating a score for each relevant stage of the PIP and providing feedback and recommendations.

Validation phase (check all that apply):

☒ PIP submitted for approval ☐ Planning phase ☐ Implementation phase
☐ First remeasurement ☐ Second remeasurement ☐ Other (specify)

Validation rating: ☒ No confidence

"Validation rating" refers to EQRO's overall confidence that the PIP adhered to an acceptable methodology for all phases of design and data collection, conducted accurate data analysis and interpretation of PIP results, and produced significant evidence of improvement.

EQRO recommendations for improvement of PIP: Home State Health must have a concise aim statement, have clarity on the concepts of target population/project population, PIP variables/secondary measures, and define and apply accurately. The data collection plan should be provided, linking to the data analysis plan. The interventions should tie to an improvement by correct analysis and interpretation using the PDSA cycles. (For details, refer to section 6.0)

4.2.2 PIP Description**Interventions:**

1. Statewide Initiative: AlphaPointe is a sheltered workshop in the Kansas City area that performs various outreach campaigns to Home State Health members to assist with understanding their benefits (incentives and transportation), schedule health care appointments, and perform screenings. Home State Health contacted AlphaPointe in the fourth quarter of MY 2019 to request a targeted outbound call campaign for noncompliant members' annual dental visits. AlphaPointe intervention again began making the dental outreach calls in October 2020 and continued in MY 2021. The calls were made throughout the year.

2. Eastern Region Initiative: In Quarter 3-MY 2020, Home State Health collaborated with Affinia Healthcare, a large FQHC with three locations in the St. Louis area which offer dental care, to focus on dental interventions in the St. Louis area. The goal of this partnership was to increase the compliance rate on the ADV measure for Home State Health members, 2 to 9 years old, who were assigned to Affinia as their Primary Care Physician. Home State Health took the following actions:

- Demographic information was exchanged between Affinia and Home State Health to

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determine the most recent demographic information on file to better locate Home State Health members.

- Home State Health sent dental text reminders/education messages to members assigned to Affinia as their PCP who were noncompliant with their dental visit.
- Affinia sent dental text reminders/education messages to their assigned members who were noncompliant with their dental visits.
- Affinia re-educated their frontline staff and scheduling team to remind them to address dental appointments and benefits information with members.
- Home State Health supplied additional brochures, including member incentives and transportation information for the Affinia staff to reference and give to its members.
- Home State Health donated personal protective equipment (PPE) to Affinia for their staff and members.

The Affinia intervention continued in MY 2021. Based on the lower-than-desired results, Affinia called non-compliant members to educate these members about needing a dental visit, benefits, and member incentives during their outreach versus texting the previous year. In addition to education, Affinia offered two dental day clinic dates for non-compliant members to attend.

3. Big Smiles School-Based Clinics and Text Campaign: In the last quarter (Q4) of MY 2021, Home State Health partnered with Big Smiles, which provides dental clinics in schools across the MO. The intent was to encourage dental visits for school-age children if the children attended a school in which Big Smiles held a clinic. A mobile health engagement company (mPulse) was engaged to send text messages through their mobile channel platform. The texts were sent to member guardians within the counties and zip codes in which Big Smiles was hosting a school-based clinic. Weekly text messages were sent each Thursday beginning in Q4-MY 2021.

Performance Measure: NCQA HEDIS ADV was the performance measure selected for the PIP. The numerator and denominator were defined as follows:

Numerator: Home State Health members in the denominator who had one or more dental visits with a dental practitioner during the measurement year.

Denominator: Home State Health members aged 2 through 20 years enrolled on December 31 of the measurement year, who were continuously enrolled during the measurement year with no more than one gap in enrollment of up to 45 days during the measurement year.

Home State Health reported secondary measurements for the following:

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1. AlphaPointe Contact Rates and Compliancy Post-Contact: This measurement was used to track the AlphaPointe successful contact rate. The rate of members contacted who became compliant post-contact by AlphaPointe was also tracked.

Numerator: The number of members in the denominator whom AlphaPointe reached live by phone contact. AlphaPointe provided a weekly call report to Home State Health of the details of their outreach, including attempts and successful contacts.

Denominator: Members in the denominator but non-compliant. Data is queried from Inovalon's QSI XL system with each outreach and posted for AlphaPointe.

The percentage of members successfully contacted who became compliant:

Numerator: Members who are compliant after the successful outreach.

Denominator: Members successfully outreached to per AlphaPointe data.

2. Affinia Compliance Rate: The compliance rate is calculated based on the percentage of Affinia's Home State Health panel compliant for the HEDIS ADV measure.

Numerator: Members in the denominator who are compliant, per Inovalon QSI XL.

Denominator: Members assigned to Affinia's Tax Identification Number (TIN), sourced from Home State Health's system to assign, and track member PCP assignments (Unified Member View or UMV, queried from the electronic data warehouse)

3. Big Smiles School-Based Clinics and Text Campaign: Rate of compliant members who received a text to analyze the intervention.

Data Collection: HEDIS ADV was reported using NCQA-certified HEDIS software, QSI-XL. The rate was reported annually and also tracked monthly for variation and progress. AlphaPointe provided a weekly call report to Home State Health of the details of their outreach, including attempts and successful contacts. Affinia compliance rate was calculated monthly per Inovalon QSI XL.

Findings:

Intervention 1 (AlphaPointe): AlphaPointe was given a list of 152,434 members to call throughout MY 2021 and successfully contacted 15,400 (10.10%). AlphaPointe made more calls in MY 2021 versus MY 2020 with the same rate of successful contacts (calls where they reached a member). Figure 5 shows successful contacts monthly during MY 2021.

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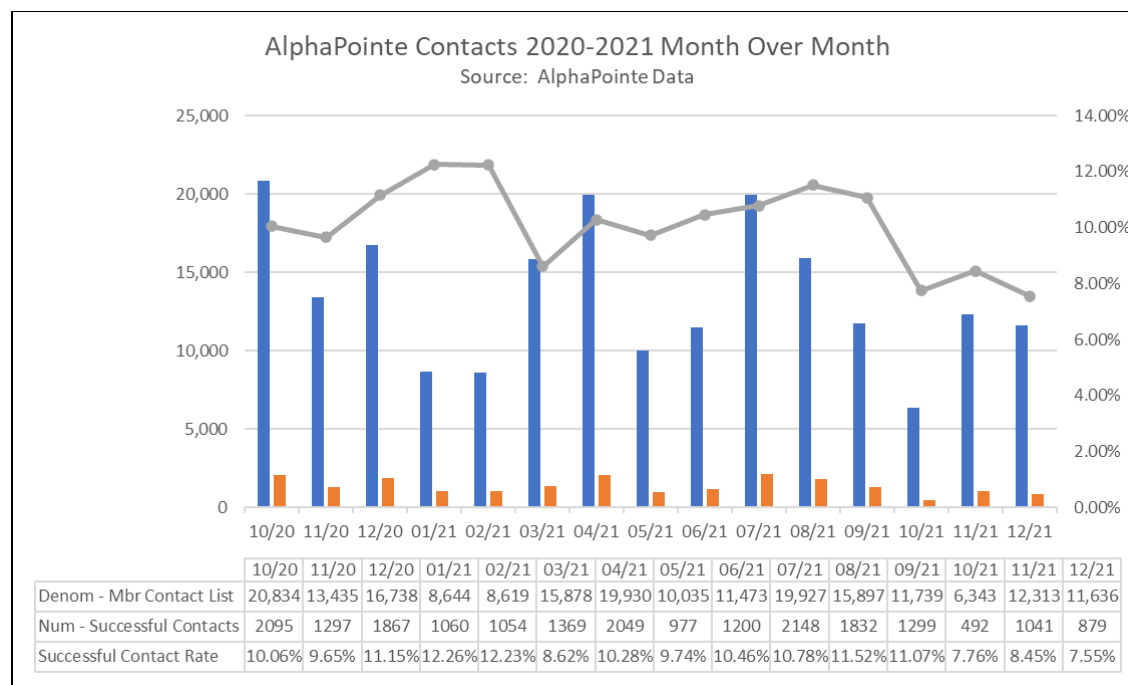


Figure 5. AlphaPointe Success Contact Rate Monthly

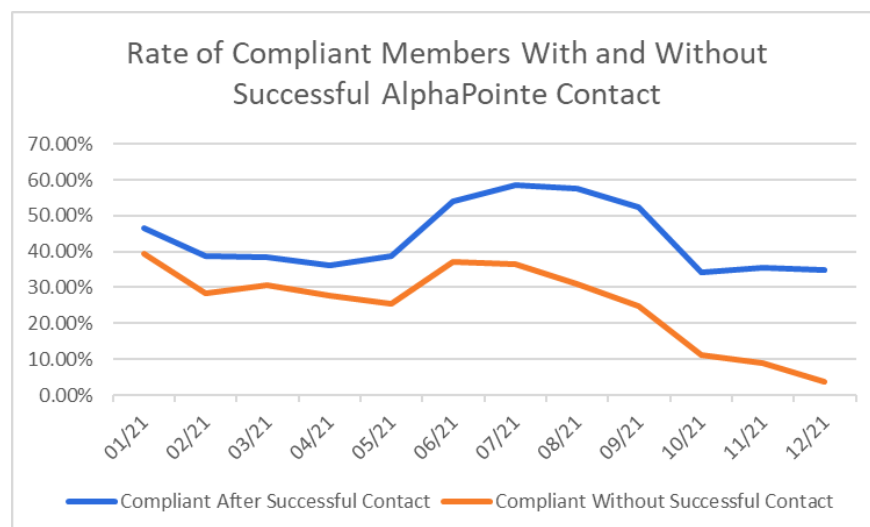


Figure 6. AlphaPointe Compliance Rate MY 2021

Home State Health reported the compliance rate of those members who were successfully contacted versus members who were called but did not have a successful contact throughout MY 2021 (Figure 6). For the 10.10% members who were successfully contacted, the average compliance with ADV was 45.61%.

Intervention 2 (Affinia): In MY 2021, Home State Health provided a list of 3,048 ADV non-compliant members to Affinia to increase compliance. These members were assigned to an

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affiliated Affinia Primary Care Provider. Affinia conducted an outreach campaign to those members to encourage attendance in one of two clinics offered during the year. As a result, out of 3,048 members, 41 became compliant after attending an Affinia Dental Day (Table 5).

Table 5. Affinia Dental Days: MY 2021

Affinia Dental Dates	2.24.2021	8.28.2021
Total Affinia Non-Compliant ADV Members Provided (Aged 2-20 years)	3,048	2,831
Total Affinia Compliant ADV Counts - Based on Flowchart Runs Post Dental Days	493	316
Count of Schedule Members	20	21
Compliance Percentage Outcomes - Based on Scheduled Members	4.1%	6.6%

Intervention 3 (Big Smiles): Home State Health provided mPulse with a list of 19,254 ADV non-compliant members to send text messages. Of the 19,254 outreach attempts, 1,019 (5.29%) resulted in compliant dental visits by the end of the measurement year (Table 6).

Table 6. Big Smiles Outcomes MY 2021

Text Date	Compliant After Text Message	Compliant Before Text Message	Member Lost Eligibility/Not in Denominator	No Change in Compliance
11.22.21	177	615	111	1059
12.14.21	356	4125	423	5352
12.2.21	230	1164	265	1766
12.6.21	256	1299	204	1852
Total MY 2021	1019	7203	1003	10029

Figure 7 tracks monthly administrative HEDIS ADV rates and final rates for MY 2019-2021.

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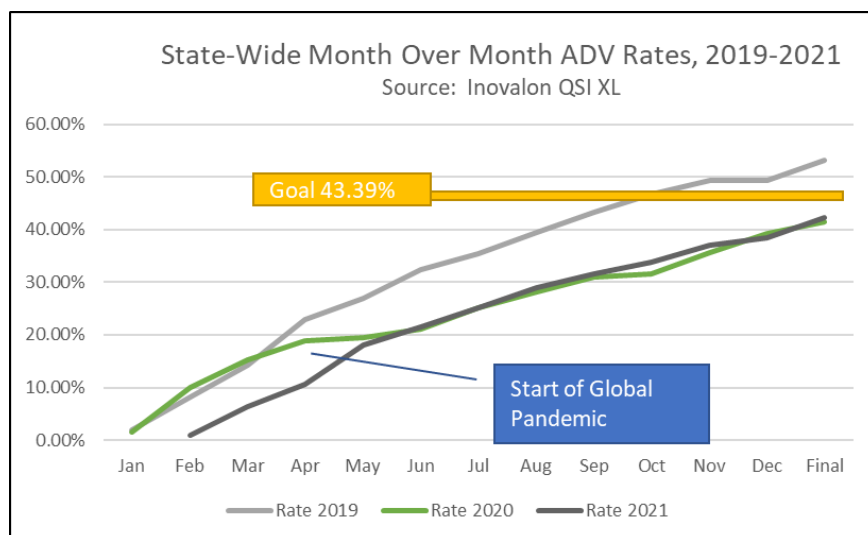


Figure 7. HEDIS ADV Rates Monthly (MY 2019-MY 2021)

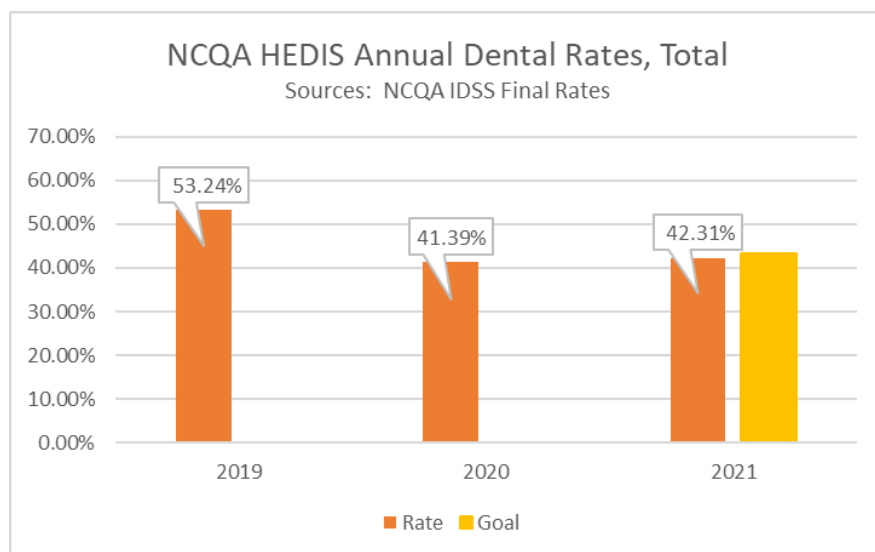


Figure 8. HEDIS ADV Rates Annual (MY 2019-2021)

4.2.3 PIP Result

Home State Health did not meet the aim to increase the HEDIS ADV rate by 2% points from the previous year. However, the HEDIS ADV rate increased from 41.39% (MY 2020) to 42.31% (MY 2021) by 0.92% points which was of statistical significance ($P < 0.00001$) (Figure 8).

5.0 OVERALL CONCLUSIONS

PIPs Score

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Home State Health did not meet the MHD's goal to increase the HEDIS CIS Combo 10 and HEDIS ADV rates by 2% points from the previous year. Also, the PIP methodology was not sound, so PTM assigned a score of "no confidence" for both clinical and nonclinical PIPs.

The PIPs did not meet all the required guidelines stated in the 42 CFR 438.330(d)(2)/MHD contract, section 2.18.8(d)(1) (Table 7).

Table 7. PIPs' Evaluation based on the CFR/MHD Guidelines

CFR Guidelines	CIS PIP	ADV PIP
Measurement of performance using objective quality indicators	● Partially Met	● Partially Met
Implementation of system interventions to achieve improvement in the access to and quality of care	● Not Met	● Not Met
Evaluation of the effectiveness of the interventions	● Not Met	● Not Met
Planning and initiation of activities for increasing or sustaining improvement.	● Fully Met	● Fully Met

5.1 Strengths and Weaknesses

PTM identified the following strengths and weaknesses in the validation process of both the PIPs, summarized in Table 8.

Table 8. Strengths and Weaknesses of PIPs

Evaluation Criteria	Strength	Weakness
1. Selection of PIP topic	N/A (the MHD provided the topic, hence marked as Not/Applicable-N/A)	Even though the MHD selected the topic, Home State Health did not clarify if its PIPs included all members with special health needs and services.
2. Writing an Aim statement		The aim statement was incomplete and inaccurate. It did not specify the improvement strategy, the population, and the correct goal as required by the MHD.
3. Identifying the study population		Home State Health lacks clarity on what constitutes the target population and the project population. As a result, multiple statements about the study population

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Evaluation Criteria	Strength	Weakness
		were provided.
4. Sampling		PTM determined that Home State Health utilized a non-probability sampling methodology (Judgmental/purposive) in the nonclinical PIP. However, Home State Health did not identify or report it.
5. Variables/performance measures (the MHD decided the primary measure)		Variables were not used in the PIPs. For the clinical PIP, MMR vaccination rate and Hepatitis A vaccination rate were selected as sub-measures even though the intervention was not specific to these measures. For the non-clinic PIP, the secondary measures were not accurately defined (numerator, denominator, units).
6. Data collection procedures		The PIP design did not include a data collection plan, all sources of data, and frequency for data collection.
7. Data analysis and interpretation of results		The baseline and the measurement year data did not correspond to the same parameter for the interventions. A baseline rate before the start of an intervention followed by at least two remeasurements was not presented for all interventions. The PIP design was not such that it analyzed and incorporated lessons during the intervention at each measurement. PDSA cycles were not implemented.
8. Improvement strategies		The improvement strategies

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Evaluation Criteria	Strength	Weakness
		<p>failed to achieve the PIP's aim for both PIPs.</p> <p>Clinical PIP: All the patient groups (with or without the Pacify app) showed an increase in the Hep A and MMR rates in MY 2021 though the administrative data for HEDIS CIS Combo 10 in MY 2021 was lower in MY 2020 throughout the year for each corresponding year during the intervention.</p> <p>Nonclinical PIP: The AlphaPointe successful contact rate was 10.10% of members who are non-compliant and achieved a compliance rate of 45.61% of these 10.10% members. Affinia intervention closed less than a 1% gap of the denominator. The Big Smiles intervention compliance rate was 5.29%.</p> <p>The PIPs did not provide information on whether the improvement strategies selected for the PIPs were evidence-based and the test of change that would likely lead to the desired improvement in process or outcomes. The strategies were not designed to address the intervention's root cause or barrier to poor results. The effectiveness of the improvement strategies was not determined by measuring a change in</p>

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Evaluation Criteria	Strength	Weakness
		performance according to a predefined target or aim.
9. Significant and sustained improvement		<p>The final HEDIS CIS Combo 10 administrative rate did not show any improvement in MY 2021 compared to MY 2020. However, the final hybrid HEDIS CIS Combo 10 rate increased by 0.3% points, which was statistically insignificant.</p> <p>The final HEDIS ADV rate showed a statistically significant increase of 0.92% points (MY 2021-42.31%, MY 2020-41.39%).</p> <p>None of the two PIPs achieved the aim of increasing the HEDIS rates by 2% points from the previous year.</p>

5.2 Improvement by Home State Health

Table 9 shows the degree to which Home State Health responded to EQRO's recommendations from the previous years' EQRs. PTM evaluated the actions taken by Home State Health and categorized them as follows:

- High: MCO fully addressed the recommendation, complied with the requirement, and PTM closed the item.
- Medium: MCO partially addresses the recommendation, the same recommendation applies, or a new recommendation is provided, and the item remains open.
- Low: Minimal action/no action was taken, the same recommendation applies, and the item remains open.

Table 9. Degree of response to EQRO's previous recommendations

Previous Recommendation	Action by Home State Health	Home State Health's Degree of Response and EQRO's Recommendation
EQR 2021		
1. Aim Statement: The PIP aim statement should define the improvement strategy, population, and period. It should be clear and concise, measurable, and answerable.	Home State Health did not define the aim statement accurately. As a result, the issue remained in the EQR 2022.	Low The same recommendation applies to the EQR 2022.
2. Study Population: Home State Health should articulate the concepts and clearly define the target population and PIP population. The PIP population should be selected at a small scale (e.g., from a county, provider office, or region) so that results can be measured during the PDSA cycle and subsequently applied at a larger scale.	The recommendation was not implemented. The issue remained in the EQR 2022.	Low The same recommendation applies to the EQR 2022.
3. PDSA Cycles: Home State Health must adopt PDSA cycles that involve analysis, feedback/lessons learned from the data collected after the intervention, and application of these outcomes to plan another test cycle.	Though Home State Health reported using the PDSA cycles for both the PIPs, PTM determined that the process was not followed.	Low The same recommendation applies to the EQR 2022.
4. Data Analysis and Interpretation of Results: Though conclusive demonstration through controlled studies is not required, Home State Health should compare the results across multiple entities, such as different patient subgroups and provider sites, to ascertain the change brought by the intervention.	Home State Health compared different patient groups for clinical PIP and non-clinical PIP.	Medium The same recommendation applies to the EQR 2022.
5. Sustained improvement: After an intervention is implemented and results are analyzed, Home State Health should identify strategies to	Home State Health continued the interventions from the previous year even though	Low The same recommendation

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Previous Recommendation	Action by Home State Health	Home State Health's Degree of Response and EQRO's Recommendation
create a sustained improvement. This allows Home State Health to maintain the positive results of the intervention, correct negative results, and scale the intervention to support longer-term improvements or broader improvement capacity across other health services, populations, and aspects of care. Because PIPs can be resource-intensive, this phase also helps learn how to allocate more efficiently for future projects.	they did not demonstrate improvement and decided to implement them the following year.	applies to the EQR 2022. In addition, a target should be set for the intervention based on the goal of the PIP. The intervention should be adopted, adapted, or abandoned with each PDSA cycle based on the results obtained.
EQR 2020		
1. While several/ongoing interventions from previous years are very informative, Home State Health should present the interventions applied for the PIPs rather than for statewide or corporate-wide operations.	There was some improvement. Home State Health reduced the details of other interventions outside the PIP operating in MO.	Medium The same recommendation applies to EQR 2022. Home State Health should focus on the steps involved in the PIP methodology.
2. Even though the MHD mandates an overarching goal, Home State Health can select a topic within specified parameters. To ensure a successful PIP, Home State Health should find early and regular opportunities to obtain input from staff, providers, and members, improving care delivery.	There was no improvement towards this step in the methodology of PIP in EQR 2022.	Low The same recommendation applies to the EQR 2022.
3. Home State Health should translate the aim statement to identify the focus of the PIP and establish the framework for data collection and analysis on a small scale (PDSA cycle). PIP population should be selected from a county,	There was some improvement towards this step in the methodology of PIP in EQR 2022. One of the interventions in the nonclinical PIP was in one region).	Medium The same recommendation applies to EQR 2022.

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Previous Recommendation	Action by Home State Health	Home State Health's Degree of Response and EQRO's Recommendation
provider office, or region so that results can be measured during the PDSA cycle and subsequently applied on a larger scale.		
4. Home State Health should select a variable (a measurable characteristic, quality, trait, or attribute of a particular individual, object, or situation being studied) that could identify Home State Health's performance on the PIPs and track improvement over time. Home State Health can use focus groups, surveys, and interviews to collect qualitative insights from members, MCO and provider staff, and key external partners. Qualitative measures can serve as secondary measures or supplement the overall measurement set, providing information that will aid PIP planning and implementation.	There was some improvement towards this step in the methodology of PIP in EQR 2022. The variables were not selected, but secondary measures were selected; however, they were inaccurately defined and applied in the PIPs. Moreover, qualitative measures were not used.	Low The same recommendation applies to the EQR 2022.
5. Home State Health should use variables/secondary measures that tie an intervention to improvement. Clear and concise definitions of data elements (including numerical definitions and units of measure) should be provided for the data collected after the intervention.	Same comment as above.	Low The same recommendation applies to the EQR 2022.
6. Data collection plan should be linked to the data analysis plan to ensure that appropriate data would be available for the PIP.	There was no improvement towards this step in the methodology of PIP in EQR 2022.	Low The same recommendation applies to the EQR 2022.
7. A baseline rate should be presented before the start of an	There was no improvement towards this	Low

Performance Improvement Projects: Home State Health

Previous Recommendation	Action by Home State Health	Home State Health's Degree of Response and EQRO's Recommendation
intervention, followed by at least two remeasurements. Analysis of results should be utilized to plan the subsequent intervention (cycle-PDSA) for future PIP. Additionally, primary and secondary measures/variables should be linked to illustrate the impact of the intervention on a project's performance.	step in the methodology of PIP in EQR 2022.	The same recommendation applies to the EQR 2022.
8. Home State Health should assess whether the PIP resulted in sustained improvement, whether repeated measurements were conducted, and if so, whether a significant change in performance relative to baseline measurement was observed. Repeat measurements (at least two) in short intervals should be conducted to determine whether significant performance changes relative to baseline measurement were observed.	The interventions did not make a sustained improvement. The significance of the change was not tested.	Low The same recommendation applies to the EQR 2022.
9. Effectiveness of the improvement strategy should be determined by measuring a change in performance according to the predefined measures and linking to intervention.	There was no improvement towards this step in the methodology of PIP in EQR 2022.	Low The same recommendation applies to the EQR 2022.
8. When analyzing multiple data points over time, Home State Health should consider tools such as time series, run charts, control charts, data dashboards, and basic trend analyses.	Line graphs showed trends of the primary measures in both PIPs and for some interventions.	Medium The same recommendation applies to EQR 2022.
EQR 2019		

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Previous Recommendation	Action by Home State Health	Home State Health's Degree of Response and EQRO's Recommendation
1. Home State Health should follow CMS EQR protocol and Medicaid Oral Health Performance Improvement Projects: A How-To Manual for Health Plans, July 2015, for guidance on the methodology and approach of PIPs to obtain meaningful results.	There was no improvement in the methodology of PIP in EQR 2022.	Low The same recommendation applies to EQR 2022.
2. Home State Health must refine its skills in the development and implementation of approaches to effect change in the PIPs.	There was some improvement in the methodology of PIP in EQR 2022.	Low The same recommendation applies to EQR 2022.
3. The interventions should be planned specifically for the PIP required by the MHD contract.	The interventions were ongoing even when no improvement was evident for the last three years.	Low The same recommendation applies to EQR 2022.
4. The results should be tied to the interventions.	There was no improvement in the methodology of PIP in the EQR 2022.	Low The same recommendation applies to EQR 2022.

6.0 RECOMMENDATIONS

Home State Health

Home State Health must improve the methodology for its PIPs to meet the compliance requirements set in 42 CFR 438.330(d)(2)/MHD contract, section 2.18.8(d). All recommendations from the previous years scored as "Low" and "Medium" must be addressed in future PIPs (refer to Table 9 in section 5.0 of this report). Some other recommendations directed toward improving the weaknesses noted in Table 8 are as follows:

1. Sampling: Accurate knowledge of sampling must be applied while conducting PIPs.
2. Data Analysis and Interpretation of PIP results: The baseline corresponding to the parameters under study must be provided from the previous year to see the trend over a

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period.

MHD

1. The MHD must clarify with Home State Health to implement system interventions only (MHD contract, section 2.18.8 (d)(1)) and not member/provider interventions. Per the CMS EQR protocol 1, it is expected that interventions associated with significant improvement will be system interventions (such as educational efforts, policy changes, or targeting of additional resources). However, 42 CFR 438.330(d)(2) requires an MCO to implement interventions to achieve improvement in the access and quality of care. There is no emphasis on system interventions.
2. A formal one-on-one technical assistance would help Home State Health close the gaps in knowledge of its approach to conducting a PIP. Training, assistance, and expertise for designing, analyzing, and interpreting PIP findings are available from the EQRO, CMS publications, and research reviews.
3. The MHD should require Home State Health to develop a specific PIP plan, including a timeline, SMART aim statement, names and credentials of team members conducting the PIP, key driver diagram, performance indicators (primary and secondary measures, variables), interventions planned, data collection plan by the first quarter of a given MY, for approval.

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APPENDIX A. PIP VALIDATION WORKSHEET IMPROVING CHILDHOOD IMMUNIZATION STATUS

Date of Evaluation: Oct 28, 2022

MCO Name/Mailing Address:	Home State Health/11720 Borman Drive, St. Louis, MO 63146
MCO Contact Name and Title:	Quality Improvement Coordinator II
Name of Performance Improvement Project:	Improving Childhood Immunization Status
PIP Period Date:	Jan 1, 2021-Dec 31, 2021
Programs:	Medicaid only/CHIP only/✓Medicaid and CHIP
Demographic Information:	Number of Medicaid/CHIP enrollees in MCO: 299,237 Medicaid/CHIP members included in the study (denominators): 10,645 Number of Providers: Total 25,000 practitioners and 139 facilities

Score: Fully Met (FM) ● / Partially Met (PM) ● / Not Met (NM) ● / Not Applicable (N/A)

ACTIVITY 1: ASSESS THE PIP METHODOLOGY**Step 1: Review the PIP Topic**

Component/Standard	Score	Comments
1.1 Was the topic selected through a comprehensive analysis of MCO enrollee needs, care, and services? (Note: If the PIP topic was required by the State, it will be marked as N/A.)	N/A	The MHD contract section 2.18.8(d)(2) requires Home State Health to conduct a PIP to improve HEDIS CIS Combo 10 yearly by at least 2% points in alignment with the Quality Improvement Strategy.
1.2 Did selection of the PIP topic consider performance on the CMS Child and Adult Core Set measures?	N/A	The MHD selected the PIP topic. However, Childhood Immunization Status is a Child Core Set measure (NQF0038).
1.3 Did the selection of the PIP topic consider input from enrollees or providers who are users of, or concerned with, specific service areas? (Note: If the PIP topic was required by the State, it will be marked as N/A.)	N/A	The MHD selected the PIP topic.
1.4 Did the PIP topic address care of special populations or high-priority services, such as: <ul style="list-style-type: none"> Children with special health care needs Adults with physical disabilities Children or adults with behavioral health issues People with intellectual and developmental 	● PM	This criterion is not explicitly addressed in the PIP. However, Home State Health stated that all children who turned two in the measurement year and were continuously enrolled 12 months prior to their second birthday; and had no more than one gap in enrollment of up to 45 days during the 12

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disabilities <ul style="list-style-type: none"> • People with dual eligibility who use long-term services and supports (LTSS) • Preventive care • Acute and chronic care • High-volume or high-risk services • Care received from specialized centers (e.g., burn, transplant, cardiac surgery) • Continuity or coordination of care from multiple providers and over multiple episodes • Appeals and grievances • Access to and availability of care 		months prior to their second birthday.
1.5 Did the PIP topic align with priority areas identified by HHS and/or CMS?	N/A	The MHD selected the topic. The CIS measure aligns with the CMS priority areas.
1.6 Overall assessment/recommendations for improving PIP topic.	● PM	Home State Health should clarify if the PIP met all the requirements in section 1.4. Even though the MHD mandates the overarching goal, Home State Health should find early and regular opportunities to obtain input from staff, providers, and members on improving care delivery and decide on the focus of the PIP to impact on the HEDIS CIS Combo 10 rate.

Step 2: Review the PIP Aim Statement

Component/Standard	Score	Comments
2.1 Did the PIP aim statement clearly specify the improvement strategy?	● NM	<p>The aim statement was “increase Home State Health’s NCQA HEDIS CIS Combo 10 rate by 1% by Dec 31, 2021.”</p> <p>PTM noted that the improvement strategy was not specified, and the goal was incorrect. The MHD required Home State Health to conduct a PIP to increase HEDIS CIS Combo 10 rate by 2% points from the previous year.</p>
2.2 Did the PIP aim statement clearly specify the population for the PIP?	● NM	The aim statement did not specify the population. A definition of the HEDIS CIS Combo 10 measure was provided, which stated that all children 2 years of age were included in the PIP.
2.3 Did the PIP aim statement clearly specify the time period for the PIP?	● FM	By Dec 31, 2021.

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2.4 Was the PIP aim statement concise?	● NM	The aim statement was incomplete. The baseline rate and the incorrect goal were stated in a Table. The population was stated in the definition of the HEDIS CIS Combo 10 measure.
2.5 Was the PIP aim statement answerable?	● NM	Same comment as in section 2.4. The aim statement was answerable but incorrect.
2.6 Was the PIP aim statement measurable?	● NM	Same comment as in section 2.4. The aim statement was measurable but incorrect.
2.7 Overall assessment/recommendations for improving the PIP aim statement.	● NM	The PIP aim statement should define the improvement strategy, population, and time period. It should be clear, concise, measurable, and answerable. Even though the overarching aim is provided by the MHD, Home State Health should translate the aim statement that identifies the focus of the PIP and establish the framework for data collection and analysis on a small scale.

Step 3: Review the Identified Study Populations

Component/Standard	Score	Comments
3.1 Was the project population clearly defined in terms of the identified PIP question (e.g., age, length of the PIP population's enrollment, diagnoses, procedures, other characteristics)?	● NM	<p>Home State Health presented two statements about the project population: "The study population included all Home State Health members who turn two years of age during the measurement year who meet the HEDIS eligibility requirements. The intervention was applied to all eligible members aged 0 through 2 at the time of each intervention."</p> <p>Another statement about the project population was as follows: "A targeted Rapid Cycle improvement initiative for High-Risk pregnant mothers and their newborns is included in this PIP."</p> <p>PTM determined that Home State Health does not have clarity on the target and the PIP population.</p>
3.2 Was the entire MCO population included in the PIP?	● FM	Home State Health reported using the entire eligible population in reporting the HEDIS CIS Combo 10 measure.

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3.3 If the entire population was included in the PIP, did the data collection approach capture all enrollees to whom the PIP question applied?	● FM	Data collection was performed according to HEDIS technical specifications for CIS Combo 10 measure and captured all population using the NCQA-certified HEDIS software.
3.4 Was a sample used?	N/A	Sampling was not utilized.
3.5 Overall assessment/recommendations for identifying the project population.	● PM	Home State Health should have clarity on defining the target population and PIP population. PTM recommends that the PIP population be selected at a small scale (e.g., from a county, provider office, or region) so results can be measured during the PDSA cycle and applied at a larger scale.

Step 4: Review Sampling Method

Component/Standard	Score	Comments
4.1 Did the sampling frame contain a complete, recent, and accurate list of the target PIP population?	N/A	Sampling was not used in this study.
4.2 Did the sampling method consider and specify the true or estimated frequency of the event, the confidence interval to be used, and the acceptable margin of error?	N/A	Same comment as in section 4.1.
4.3 Did the sample contain a sufficient number of enrollees taking into account non-response?	N/A	Same comment as in section 4.1.
4.4 Did the method assess the representativeness of the sample according to subgroups, such as those defined by age, geographic location, or health status?	N/A	Same comment as in section 4.1.
4.5 Were valid sampling techniques used to protect against bias? Specify the type of sampling used.	N/A	Same comment as in section 4.1.
4.6 Overall assessment/recommendations for improving the sampling method.	N/A	Same comment as in section 4.1.

Step 5: Review the Selected PIP Variables and Performance Measures

Component/Standard	Score	Comments
PIP Variables		

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<p>5.1 Were the variables adequate to answer the PIP question?</p> <ul style="list-style-type: none"> Did the PIP use objective, clearly defined, time-specific variables (e.g., an event or status that can be measured)? Were the variables available to measure performance and track improvement over time (at least semiannual basis)? 	● NM	The PIP variable was not reported. PTM determined that some of the information reported as secondary measures (impact of Pacify app, member satisfaction with Pacify app, Provider Peak Incentives) could be modified and defined accurately to serve as variables.
Performance measures		
5.2 Did the performance measure assess an important aspect of care that will make a difference to enrollees' health or functional status?	● FM	HEDIS CIS Combo 10 measure was selected as a primary measure.
5.3 Were the performance measures appropriate based on the availability of data and resources to collect the data (administrative data, medical records, or other sources)?	● PM	Home State Health reported secondary measurements for CIS Combo 10 monthly rates; the impact of CM and Pacify app-Measles, Mumps, Rubella (MMR), and Hepatitis A sub measures; member satisfaction with Pacify app; and Provider Peak Incentive. PTM determined that the Pacify app intervention was not directed toward the MMR and Hepatitis sub-measure.
5.4 Were the measures based on current clinical knowledge or health services research? Examples: Recommended procedures, appropriate utilization (hospital admissions, emergency department visits), adverse incidents (such as death, avoidable readmission), referral patterns, authorization requests, and appropriate medication use.	● PM	Same comment as in sections 5.2 and 5.3.
<p>5.5 Did the performance measures:</p> <ul style="list-style-type: none"> Monitor the performance of MCO at a point in time? Track MCO performance over time? Compare performance among MCOs over time? Inform the selection and evaluation of quality improvement activities? 	● FM	The HEDIS CIS Combo 10 measure was tracked and trended monthly for MY 2019-MY 2021. Home State Health did not compare its performance with the other MCOs as this was not a collaborative PIP.
5.6 Did the MCO consider existing measures, such as CMS Child and Adult Core Set, Core Quality Measure Collaborative, certified community behavioral health clinics (CCBHC) measures, HEDIS, or AHRQ measures?	● FM	The CMS Child Core Set measure (HEDIS CIS Combo 10) was a primary performance indicator.

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<p>5.7 If there were gaps in existing measures, did the MCO consider the following when developing new measures based on current clinical practice guidelines or health services research?</p> <ul style="list-style-type: none"> • Did the measure address accepted clinical guidelines relevant to the PIP question? • Did the measure address an important aspect of care or operations that was meaningful to MCO enrollees? • Did available data sources allow the MCO to calculate the measure reliably and accurately? • Were all criteria used in the measure defined clearly (such as time periods, characteristics of eligible enrollees, services to be assessed, and exclusion criteria)? 	<p>● PM</p>	<p>There was no gap in the primary measure. The secondary measures were developed though they were not accurately defined (numerator, denominator, units).</p>
<p>5.8 Did the measures capture changes in enrollee satisfaction or experience of care? Was there some improvement in health or functional status? (For projects in non-clinical areas such as addressing access or availability of services, measurement of health or functional status is preferred.)</p>	<p>● FM</p>	<p>Home State Health presented information regarding Pacify mobile application utilization and service satisfaction.</p>
<p>5.9 Did the measures include a strategy to ensure inter-rater reliability (if applicable)?</p>	<p>● FM</p>	<p>All charts manually uploaded in the QSI-XL were over-read by team members who have completed and passed inter-rater reliability training for CIS compliance requirements; these charts were also part of random audits to ensure compliance. However, only the final HEDIS CIS Combo 10 was hybrid. Administrative rates were reported for the interventions.</p>
<p>5.10 If process measures were used, is there strong clinical evidence indicating that the process being measured is meaningfully associated with outcomes?</p> <ul style="list-style-type: none"> • This determination will be based on published guidelines, including citations from randomized clinical trials, case-control studies, or cohort studies. • At a minimum, the PIP should be able to demonstrate a consensus among relevant practitioners with expertise in the defined 	<p>● FM</p>	<p>The process measure used in the PIP is a CMS Child Core Set measure (NQF0038).</p>

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area who attest to the importance of a given process.		
5.11 Overall assessment/recommendations for improving the selected PIP variables and performance measures.	● PM	The rationale for selecting secondary immunization measures is not understood as the intervention is not directed towards it. Home State Health should select a variable (a measurable characteristic, quality, trait, or attribute of a particular individual, object, or situation being studied) and a secondary measure that could identify Home State Health's performance on the PIP aim objectively and reliably and use clearly defined indicators of performance.

Step 6: Review Data Collection Procedures

Component/Standard	Score	Comments
Assessment of Overall Data Collection Procedures		
6.1 Did the PIP design specify a systematic method for collecting valid and reliable data that represents the population in the PIP?	● PM	Data for the primary measure was reported through the NCQA-certified HEDIS software, QSI-XL, from various sources such as claims data, supplemental data, charts, and the ShowMeVax program. Provider peak incentive data was collected from claims, and member satisfaction data was via a survey. The collection of data to assess the impact of the Pacify app data was not presented.
6.2 Did the PIP design specify the frequency of data collection? If yes, what was the frequency (for example, semi-annually)?	● PM	The data collection plan was not specified. Monthly CIS Combo 10 rate and annual final CIS Combo 10 rates were presented for MY 2019-MY 2021. The Pacify app intervention results were presented annually for MY 2019-MY 2021.
6.3 Did the PIP design clearly specify the data sources? Data sources may include: Encounter and claims systems, medical records, case management or electronic visit verification systems, tracking logs, surveys, provider and/or enrollee interviews.	● PM	Same comment as in section 6.1.
6.4 Did the PIP design clearly define the data elements to be collected?	● PM	PIP design mentioned only the primary measure. A definition of HEDIS CIS Combo 10 measure was provided. Concise definitions of data elements (including

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Accurate measurement depends on clear and concise definitions of data elements (including numerical definitions and units of measure).		numerical definitions and units of measure) were not provided for the data collected after the intervention.
6.5 Did the data collection plan link to the data analysis plan to ensure that appropriate data would be available for the PIP?	● NM	A data collection plan was not presented.
6.6 Did the data collection instruments allow for consistent and accurate data collection over the time periods studied?	● PM	NCQA-certified software engine was used to generate the HEDIS CIS Combo 10. Data collection instruments were not reported for the secondary measures.
6.7 If qualitative data collection methods were used (such as interviews or focus groups), were the methods well-defined and designed to collect meaningful and useful information from respondents?	● PM	Data collection for the Pacify app intervention was not reported. However, a member survey was conducted to determine the app's satisfaction rate.
6.8 Overall assessment/recommendations for improving the data collection procedures.	● PM	The PIP design must include a data collection plan, source of data, and frequency to be collected. Home State Health must clearly address sections 6.9, 6.11, 6.12, and 6.14, described below.
Assessment of Data Collection Procedures for Administrative Data Sources		
6.9 If inpatient data was used, did the data system capture all inpatient admissions/discharges?	N/A	Home State Health has not reported using the inpatient data.
6.10 If primary care data was used, did primary care providers submit encounter or utilization data for all encounters?	● FM	Claims data were used for the primary measure, provider peak incentive intervention.
6.11 If specialty care data was used, did specialty care providers submit encounter or utilization data for all encounters?	N/A	Home State Health has not reported using the specialty care providers' data.
6.12 If ancillary data was used, did ancillary service providers submit encounter or utilization data for all services provided?	N/A	Home State Health has not reported on it.
6.13 If LTSS data was used, were all relevant LTSS provider services included (for example, through encounter data, case management systems, or electronic visit verification (EVV) systems)?	N/A	LTSS is excluded per the MHD contract.

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6.14 If EHR data was used, were patient, clinical, service, or quality metrics validated for accuracy and completeness as well as comparability across systems?	N/A	Home State Health has not reported on it.
Assessment of Data Collection Procedures for Medical Record Review		
6.15 Was a list of data collection personnel and their relevant qualifications provided? (Note: Experienced clinical staff such as registered nurses should be used to extract data to support a judgment about whether clinical criteria are met.)	● FM	MRR was not conducted for the PIP. However, Home State Health reported on the credentials of the staff and their clinical experience, who were involved in the PIP, namely, Quality Improvement Coordinator II; Senior Director, Care Management; Director, Data and Analytics; Project Manager; and Senior Vice President of Population Health.
6.16 For medical record review, was inter-rater and intra-rater reliability described? The PIP should also consider and address intra-rater reliability (i.e., reproducibility of judgments by the same abstractor at a different time).	N/A	MRR was not used, so inter-rater and intra-rater reliability were not applicable.
6.17 For medical record review, were guidelines for obtaining and recording the data developed? <ul style="list-style-type: none"> A glossary of terms for each project should be developed before data collection begins to ensure consistent interpretation among and between data collection staff. Data collection staff should have clear, written instructions, including an overview of the PIP, how to complete each section of the form or instrument, and general guidance on how to handle situations not covered by the instructions. This is particularly important when multiple reviewers are collecting data. 	N/A	MRR was not conducted for the PIP. A glossary of terms for each project was not developed. The medical record review was a part of generating the HEDIS CIS Combo 10 rate, as this is a hybrid measure.

Step 7: Review Data Analysis and Interpretation of PIPs Results








Component/Standard	Score	Comments
7.1 Was the analysis conducted in accordance with the data analysis plan?	● NM	The data analysis plan was not presented. Analysis of data collected from Pacify app intervention is inconclusive, and there is no impact on primary measures.

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7.2 Did the analysis include baseline and repeat measurements of project outcomes?	● PM	Baseline and repeat measurements were presented for the primary measure-HEDIS CIS Combo 10. The annual secondary rates showing the impact of the Pacify app were trended and tracked from MY 2019-MY 2021. Repeat measurements for the interventions were not presented.
7.3 Did the analysis assess the statistical significance of any differences between the initial and repeat measurements?	● PM	Statistical significance (z-test) of the final hybrid HEDIS CIS Combo 10 rate in MY 2020 and MY 2021 was assessed. However, the statistical significance of changes in the secondary measures was not assessed.
7.4 Did the analysis account for factors that may influence the comparability of initial and repeat measurements?	● PM	See comment in section 7.2. The effectiveness of the interventions could not be accurately measured due to the continuing impact of the coronavirus global pandemic.
7.5 Did the analysis account for factors that may threaten the internal or external validity of the findings?	● FM	Home State Health reported that they followed HEDIS population requirements for this PIP. Therefore, no threats to internal or external validity existed.
7.6 Did the PIP compare the results across multiple entities, such as different patient subgroups, provider sites, or MCOs?	● FM	Four different patient subgroups' results were compared.
7.7 Were PIP results and findings presented in a concise and easily understood manner?	● NM	The annual data analysis from the Pacify app intervention was not interpreted accurately. The progress and results were not linked to the primary measure.
7.8 To foster continuous quality improvement, did the analysis and interpretation of the PIP data include lessons learned about less-than-optimal performance? (Note: Analysis and interpretation of the PIP data should be based on a continuous improvement philosophy and reflect on lessons learned and opportunities for improvement.)	● NM	The PIP design was not such that it analyzed and incorporated lessons during the intervention at each measurement. Nevertheless, annual results were reported, and some speculations were made for the future PIP.
7.9 Overall assessment/recommendations for improving the analysis and interpretation of PIP results.	● PM	A baseline rate should be presented before the start of an intervention, followed by at least two remeasurements, and results analysis should be used for planning the subsequent intervention (PDSA cycle).

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Step 8: Assess the Improvement Strategies

Component/Standard	Score	Comments
8.1 Was the selected improvement strategy evidence-based, that is, was there existing evidence (published or unpublished) suggesting that the test of change would be likely to lead to the desired improvement in processes or outcomes (as measured by the PIP variables)?	 NM	Home State Health did not provide information on this requirement.
8.2 Was the strategy designed to address root causes or barriers identified through data analysis and quality improvement processes?	 NM	The strategies were not designed to address the intervention's root cause or barrier for poor results.
8.3 Was the rapid-cycle PDSA approach used to test the selected improvement strategy?	 NM	See comment in section 7.8.
8.4 Was the strategy culturally and linguistically appropriate?	 FM	The Pacify app was available in English and Spanish.
8.5 Was the implementation of the strategy designed to account for or adjust for any major confounding variables that could have an obvious impact on PIP outcomes (e.g., patient risk factors, Medicaid program changes, provider education, clinic policies, or practices)?	 FM	The intervention continued for the last three years. Four patient groups were created, and their annual MMR and Hep A immunization results were presented. The patient groups give some insight into the difference in the outcomes.
8.6 Building on the findings from the data analysis and interpretation of PIP results (Step 7), did the PIP assess the extent to which the improvement strategy was successful and identify potential follow-up activities?	 PM	The improvement strategies were not successful. All the patient groups (with or without the Pacify app) showed an increase in the Hep A and MMR rates in MY 2021. However, the administrative data for HEDIS CIS Combo 10 in MY 2021 was lower than the rate in MY 2020 for each corresponding month during the intervention. The final hybrid CIS Combo 10 rate showed a statistically insignificant increase of 0.3% points (MY 2021-26.3%, MY 2020-26%). Home State Health identified the potential follow-up activities in the future PIP.
8.7 Overall assessment/recommendations for improving the implementation strategies.	 PM	The effectiveness of the improvement strategy should be determined by measuring a change in performance

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		according to a predefined target or aim. Each intervention cycle should be followed by a root cause analysis of poor performance and incorporate feedback into the next invention cycle (PDSA) cycle.
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Step 9: Assess the Likelihood that Significant and Sustained Improvement Occurred

Component/Standard	Score	Comments
9.1 Was the same methodology used for baseline and repeat measurements?	● PM	The baseline and repeat measurements for the primary measure were submitted using the same methodology. The intervention results were submitted only annually for the baseline and measurement years.
9.2 Was there any quantitative evidence of improvement in processes or outcomes of care?	● PM	The final HEDIS CIS Combo 10 administrative rate did not show any improvement in MY 2021 compared to MY 2020. However, the final hybrid HEDIS CIS Combo 10 rate increased by 0.3%points.
9.3 Was the reported improvement in performance likely to be a result of the selected intervention? (Conclusive demonstration through controlled studies is not required.)	● NM	There was no significant improvement in the primary measure. However, the MMR and Hep A immunization rate showed improvement in all categories of patients, so the role of intervention cannot be ascertained.
9.4 Is there statistical evidence (e.g., significance tests) that any observed improvement is the result of the intervention?	● NM	There was no statistical significance ($P=0.81034$) of the improvement in the final hybrid rata. The statistical significance of the results from the intervention was not tested.
9.5 Was sustained improvement demonstrated through repeated measurements over time?	● NM	Repeated measurements over time for the intervention was not presented. There was no sustained improvement in the primary measure-additionally, the same comment as in section 9.3.
9.6 Overall assessment/recommendations for improving the significance and sustainability of improvement as a result of the PIP.	● NM	A target should be set for the intervention to achieve the PIP goal. After an intervention is implemented and results are analyzed, Home State Health should review processes to create sustained improvement. This will allow Home State Health to maintain the positive results of the intervention, correct negative results, and scale the intervention to support longer-term improvements or broader improvement capacity across other oral health services, populations, and aspects of

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		care. Repeat measurements in short intervals should be conducted to determine whether a significant change in performance relative to baseline measurement was observed.
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ACTIVITY 2: PERFORM OVERALL VALIDITY AND REPORTING OF PIP RESULTS**Perform Overall Validation of PIP Results**

PIP Validation Rating (check one box)		Comments
<input type="checkbox"/> High confidence <input type="checkbox"/> Moderate confidence <input type="checkbox"/> Low confidence <input checked="" type="checkbox"/> No confidence		Home State Health did not meet the MHD's goal to increase the HEDIS CIS Combo 10 rate by 2% points from the previous year though the HEDIS CIS Combo 10 rate increased from 26% (MY 2020) to 26.3% (MY 2021) by 0.3% points, which is not statistically significant. The year-over-year improvement was seen in the MMR and Hep A immunization rates in all categories of patients (including those who did not use the Pacify app), so the role of intervention cannot be ascertained.

APPENDIX B. PIP VALIDATION WORKSHEET IMPROVING ORAL HEALTH


Date of Evaluation: Oct 31, 2022

MCO Name/Mailing Address:	Home State Health/11720 Borman Drive, St. Louis, MO 63146
MCO Contact Name and Title:	Quality Improvement Coordinator
Name of Performance Improvement Project:	Improving Oral Health
PIP Period Date:	Jan 1, 2021-Dec 31, 2021
Programs:	Medicaid only/CHIP only/✓Medicaid and CHIP
Demographic Information:	Number of Medicaid/CHIP enrollees in MCO: 299,237 Medicaid/CHIP members included in the study (denominators): 204,213 Number of Dentists: Total 2300 access points for dental services at 375 locations across MO. The provider network includes pediatric dentists, orthodontists, and oral surgeons.

Score: Fully Met (FM)  / Partially Met (PM)  / Not Met (NM)  / Not Applicable (N/A)

ACTIVITY 1: ASSESS THE PIP METHODOLOGY

Step 1: Review the PIP Topic

Component/Standard	Score	Comments
1.1 Was the topic selected through a comprehensive analysis of MCO enrollee needs, care, and services? (Note: If the PIP topic was required by the State, it will be marked as N/A.)	N/A	The MHD contract section 2.18.8(d)(2) requires Home State Health, at a minimum, to set a goal to improve the plan-specific HEDIS ADV rate for 2-20 years-olds each year by at least 2% points in alignment with the Quality Improvement Strategy.
1.2 Did selection of the PIP topic consider performance on the CMS Child and Adult Core Set measures?	N/A	The MHD selected the PIP topic. This is not a CMS Core Set measure.
1.3 Did the selection of the PIP topic consider input from enrollees or providers who are users of or concerned with specific service areas? (Note: If the PIP topic was required by the State, it will be marked as N/A.)	N/A	The MHD selected the PIP topic.
1.4 Did the PIP topic address care of special populations or high-priority services, such as: <ul style="list-style-type: none"> Children with special health care needs Adults with physical disabilities 	 PM	This criterion is not explicitly addressed in the PIP. However, Home State Health stated that the study population included all members in the Medicaid population

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<ul style="list-style-type: none"> • Children or adults with behavioral health issues • People with intellectual and developmental disabilities • People with dual eligibility who use long-term services and supports (LTSS) • Preventive care • Acute and chronic care • High-volume or high-risk services • Care received from specialized centers (e.g., burn, transplant, cardiac surgery) • Continuity or coordination of care from multiple providers and over multiple episodes • Appeals and grievances • Access to and availability of care 		(inclusive of TANF, CHIP, Foster Care, and AEG) who meet the eligibility criteria for the HEDIS ADV measure. The population was inclusive of members in all four regions.
1.5 Did the PIP topic align with priority areas identified by HHS and/or CMS?	N/A	The MHD selected the topic. The HEDIS ADV measure aligns with the CMS priority areas. CMS Child Core Set measures have two measures related to improving oral health.
1.6 Overall assessment/recommendations for improving PIP topic.	● PM	Home State Health should clarify if the PIP met all the requirements in section 1.4. Even though the MHD mandates the overarching goal, Home State Health should find early and regular opportunities to obtain input from staff, providers, and members on improving care delivery and decide on the focus of the PIP to impact the HEDIS ADV rate.

Step 2: Review the PIP Aim Statement

Component/Standard	Score	Comments
2.1 Did the PIP aim statement clearly specify the improvement strategy?	● NM	<p>The aim statement was “increase Home State Health’s CY 2020 NCQA HEDIS ADV rate by 1% by Dec 31, 2021.”</p> <p>PTM noted that the improvement strategy was not specified, and the goal was incorrect. The MHD required Home State Health to conduct a PIP to increase HEDIS ADV rate by 2% points from the previous year.</p>
2.2 Did the PIP aim statement clearly specify the population for the PIP?	● NM	The aim statement did not specify the population. However, a definition of the HEDIS ADV measure was stated as the

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		percentage of members aged 2-20 with dental benefits who had at least one dental visit during the year.
2.3 Did the PIP aim statement clearly specify the time period for the PIP?	● FM	By Dec 31, 2021.
2.4 Was the PIP aim statement concise?	● NM	The aim statement was incomplete. The baseline and the incorrect goal were stated in a Table. The population was stated in the definition of the HEDIS ADV measure.
2.5 Was the PIP aim statement answerable?	● NM	Same comment as in section 2.4. The aim statement was answerable but incorrect.
2.6 Was the PIP aim statement measurable?	● NM	Same comment as in section 2.4. The aim statement was measurable but incorrect.
2.7 Overall assessment/recommendations for improving the PIP aim statement.	● NM	The PIP aim statement should define the improvement strategy, population, and time period. It should be clear, concise, measurable, and answerable. Even though the overarching aim is provided by the MHD, Home State Health should translate the aim statement that identifies the focus of the PIP and establish the framework for data collection and analysis on a small scale.

Step 3: Review the Identified Study Populations

Component/Standard	Score	Comments
3.1 Was the project population clearly defined in terms of the identified PIP question (e.g., age, length of the PIP population's enrollment, diagnoses, procedures, other characteristics)?	● NM	<p>Home State Health presented two statements about the project population: "The study population is all members in the Medicaid population (inclusive of TANF, CHIP, Foster Care, and AEG) who meet eligibility criteria for the measure. The population is inclusive of members in all four regions."</p> <p>Another statement about the project population was as follows: "A targeted Rapid Cycle improvement initiative for members assigned to a specific FQHC in the Eastern region is included in this PIP."</p> <p>PTM determined that Home State Health does not have clarity on the target and the PIP population.</p>

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3.2 Was the entire MCO population included in the PIP?	● FM	The entire population was not used in the PIP. See the comment for the targeted population in section 3.1.
3.3 If the entire population was included in the PIP, did the data collection approach capture all enrollees to whom the PIP question applied?	● FM	Same comment as in section 3.1. The data collection approach captured all enrollees based on different populations selected for the three interventions.
3.4 Was a sample used?	● NM	Home State Health reported that the entire population aged 2-20 years who met eligibility criteria for the HEDIS ADV measure based on the HEDIS Technical Specifications were included in the study. PTM determined that all non-compliant members for the HEDIS ADV measure were included in different interventions applied in the PIP. This is a type of non-probability sampling but not reported in the PIP.
3.5 Overall assessment/recommendations for identifying the project population.	● PM	Home State Health should have clarity on defining the target population and PIP population. PTM recommends that the PIP population be selected at a small scale (e.g., from a county, provider office, or region) so that results can be measured during the PDSA cycle and subsequently applied at a larger scale.

Step 4: Review Sampling Method

Component/Standard	Score	Comments
4.1 Did the sampling frame contain a complete, recent, and accurate list of the target PIP population?	● FM	Home State Health reported that the entire population aged 2-20 years who met eligibility criteria for the HEDIS ADV measure based on the HEDIS Technical Specifications were included in the study.
4.2 Did the sampling method consider and specify the true or estimated frequency of the event, the confidence interval to be used, and the acceptable margin of error?	● NM	PTM determined that all non-compliant members for the HEDIS ADV measure were included in different interventions applied in the PIP. This is a type of non-probability sampling but not reported in the PIP.
4.3 Did the sample contain a sufficient number of enrollees taking into account non-response?	● FM	All non-compliant members statewide (AlphaPointe intervention), members assigned to Affinia providers in the Eastern region, and members attending schools where Big Smiles held school-based clinics were included.

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4.4 Did the method assess the representativeness of the sample according to subgroups, such as those defined by age, geographic location, or health status?	● FM	See comment in section 4.3.
4.5 Were valid sampling techniques used to protect against bias? Specify the type of sampling used.	● NM	PTM determined that a non-probability sampling methodology (Judgmental/purposive) was utilized. However, Home State Health did not identify or report it.
4.6 Overall assessment/recommendations for improving the sampling method.	● PM	Home State Health must have clarity on the sampling methodologies utilized in the PIP.

Step 5: Review the Selected PIP Variables and Performance Measures

Component/Standard	Score	Comments
PIP Variables		
5.1 Were the variables adequate to answer the PIP question? <ul style="list-style-type: none"> Did the PIP use objective, clearly defined, time-specific variables (e.g., an event or status that can be measured)? Were the variables available to measure performance and track improvement over time (at least semiannual basis)? 	● NM	The PIP variable was not reported. PTM determined that the information reported as secondary measures (AlphaPointe contact rate and compliance rate; Affinia compliance rate; and Big Smiles School-Based Clinics and Text Campaign) could be modified and defined accurately to serve as variables.
Performance measures		
5.2 Did the performance measure assess an important aspect of care that will make a difference to enrollees' health or functional status?	● FM	HEDIS ADV measure was selected as a primary measure.
5.3 Were the performance measures appropriate based on the availability of data and resources to collect the data (administrative data, medical records, or other sources)?	● PM	The primary measure and two of the secondary measures were appropriate. The third secondary measure for Big Smiles school-based clinics and text campaign was not defined. The data was collected from the claims.
5.4 Were the measures based on current clinical knowledge or health services research? Examples: Recommended procedures, appropriate utilization (hospital admissions, emergency department visits), adverse incidents (such as death, avoidable readmission), referral patterns, authorization requests, and appropriate medication use.	● PM	Same comment as in sections 5.2 and 5.3.

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<p>5.5 Did the performance measures:</p> <ul style="list-style-type: none"> • Monitor the performance of MCO at a point in time? • Track MCO performance over time? • Compare performance among MCOs over time? • Inform the selection and evaluation of quality improvement activities? 	● FM	The HEDIS ADV measure was tracked and trended monthly for MY 2019-MY 2021. Home State Health did not compare its performance with the other MCOs as this was not a collaborative PIP.
<p>5.6 Did the MCO consider existing measures, such as CMS Child and Adult Core Set, Core Quality Measure Collaborative, certified community behavioral health clinics (CCBHC) measures, HEDIS, or AHRQ measures?</p>	● FM	The MHD selected the HEDIS ADV measure as a performance indicator.
<p>5.7 If there were gaps in existing measures, did the MCO consider the following when developing new measures based on current clinical practice guidelines or health services research?</p> <ul style="list-style-type: none"> • Did the measure address accepted clinical guidelines relevant to the PIP question? • Did the measure address an important aspect of care or operations that was meaningful to MCO enrollees? • Did available data sources allow the MCO to calculate the measure reliably and accurately? • Were all criteria used in the measure defined clearly (such as time periods, characteristics of eligible enrollees, services to be assessed, and exclusion criteria)? 	● PM	There was no gap in the primary measure. The secondary measures were developed though they were not accurately defined (numerator, denominator, units).
<p>5.8 Did the measures capture changes in enrollee satisfaction or experience of care? Was there some improvement in health or functional status? (For projects in non-clinical areas such as addressing access or availability of services, measurement of health or functional status is preferred.)</p>	● FM	The HEDIS ADV rate increased by 0.92% points from the previous year.
<p>5.9 Did the measures include a strategy to ensure inter-rater reliability (if applicable)?</p>	N/A	HEDIS ADV measure and the secondary measures were reported using administrative data. Medical records were not reviewed, so IRR was not applicable.

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5.10 If process measures were used, is there strong clinical evidence indicating that the process being measured is meaningfully associated with outcomes? <ul style="list-style-type: none"> This determination will be based on published guidelines, including citations from randomized clinical trials, case-control studies, or cohort studies. At a minimum, the PIP should be able to demonstrate a consensus among relevant practitioners with expertise in the defined area who attest to the importance of a given process. 	● FM	HEDIS ADV measure was used in the PIP.
5.11 Overall assessment/recommendations for improving the selected PIP variables and performance measures.	● PM	Home State Health should select a variable (a measurable characteristic, quality, trait, or attribute of a particular individual, object, or situation being studied) that could identify Home State Health's performance on the PIP aim objectively and reliably and use clearly defined indicators of performance. The secondary measures should be accurately defined (numerator, denominator, units).

Step 6: Review Data Collection Procedures

Component/Standard	Score	Comments
Assessment of Overall Data Collection Procedures		
6.1 Did the PIP design specify a systematic method for collecting valid and reliable data that represents the population in the PIP?	● PM	The data collection plan was not specified. Data for the primary measure was reported through the NCQA-certified HEDIS software, QSI-XL, from claims, supplemental data, or charts. Data for the intervention were reported using claims.
6.2 Did the PIP design specify the frequency of data collection? If yes, what was the frequency (for example, semi-annually)?	● PM	The primary measure collection plan was reported monthly and annually. The data collection plan for the secondary measures was not specified for all the interventions. However, the Affinia compliance rate was planned to calculate monthly but it was not reported.
6.3 Did the PIP design clearly specify the data sources? Data sources may include: Encounter and claims systems, medical records, case management or electronic visit verification systems, tracking logs, surveys, provider and/or enrollee interviews.	● FM	Home State Health used Inovalon QSI XL member data to identify members in the HEDIS ADV eligible non-compliant population for all three interventions and the primary measure.

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6.4 Did the PIP design clearly define the data elements to be collected? Accurate measurement depends on clear and concise definitions of data elements (including numerical definitions and units of measure).	● PM	The primary measure was accurately defined per the HEDIS technical specifications. The secondary measures were developed though they were not accurately defined (numerator, denominator, units)-the same comment as in section 5.7.
6.5 Did the data collection plan link to the data analysis plan to ensure that appropriate data would be available for the PIP?	● NM	A data collection plan was not accurately presented. The analysis was conducted but not linked to the data collection plan.
6.6 Did the data collection instruments allow for consistent and accurate data collection over the time periods studied?	● FM	Same comment as in section 6.3.
6.7 If qualitative data collection methods were used (such as interviews or focus groups), were the methods well-defined and designed to collect meaningful and useful information from respondents?	● NM	Qualitative data collection methods were not used. Feedback from the respondents was not designed in the intervention.
6.8 Overall assessment/recommendations for improving the data collection procedures.	● PM	The PIP design must include a data collection plan, sources of data, and frequency to be collected, and analysis should be based on the plan. Home State Health must consider qualitative data collection methods such as interviews and focus groups on generating meaningful data that can help improve member satisfaction and health status. Home State Health must clearly address sections 6.9, 6.11, 6.12, and 6.14, described below.
6.9 If inpatient data was used, did the data system capture all inpatient admissions/discharges?	N/A	Home State Health has not reported using the inpatient data.
6.10 If primary care data was used, did primary care providers submit encounter or utilization data for all encounters?	● FM	Primary Care data for Affinia intervention were used. In addition, claims data for all primary and secondary measures were used.
6.11 If specialty care data was used, did specialty care providers submit encounter or utilization data for all encounters?	N/A	Home State Health has not reported using the specialty care providers' data.

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6.12 If ancillary data was used, did ancillary service providers submit encounter or utilization data for all services provided?	N/A	Home State Health has not reported on it.
6.13 If LTSS data was used, were all relevant LTSS provider services included (for example, through encounter data, case management systems, or electronic visit verification (EVV) systems)?	N/A	LTSS is excluded per the MHD contract.
6.14 If EHR data was used, were patient, clinical, service, or quality metrics validated for accuracy and completeness as well as comparability across systems?	N/A	Home State Health did not report on it.
Assessment of Data Collection Procedures for Medical Record Review		
6.15 Was a list of data collection personnel and their relevant qualifications provided? (Note: Experienced clinical staff such as registered nurses should be used to extract data to support a judgment about whether clinical criteria are met.)	● FM	MRR was not conducted for the PIP. However, Home State Health reported on the credentials of the staff and their clinical experience, who were involved in the PIP, namely, the Quality Improvement Coordinator; Senior Director, Care Management; Director, Data and Analytics; Project Manager; and Senior Vice President of Population Health.
6.16 For medical record review, were inter-rater and intra-rater reliability described? The PIP should also consider and address intra-rater reliability (i.e., reproducibility of judgments by the same abstractor at a different time).	N/A	MRR was not used, so inter-rater and intra-rater reliability were not applicable.
6.17 For medical record review, were guidelines for obtaining and recording the data developed? <ul style="list-style-type: none"> • A glossary of terms for each project should be developed before data collection begins to ensure consistent interpretation among and between data collection staff. • Data collection staff should have clear, written instructions, including an overview of the PIP, how to complete each section of the form or instrument, and general guidance on how to handle situations not covered by the instructions. This is particularly important when multiple 	N/A	MRR was not used for this PIP.

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reviewers are collecting data.		
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Step 7: Review Data Analysis and Interpretation of PIPs Results

Component/Standard	Score	Comments
7.1 Was the analysis conducted in accordance with the data analysis plan?	● NM	The data analysis plan was not presented. Analysis of data collected as a result of three interventions is inconclusive and apparently has no impact on the primary measure.
7.2 Did the analysis include baseline and repeat measurements of project outcomes?	● PM	Baseline and repeat measurements were presented for the primary measure-HEDIS ADV, and the secondary measure for AlphaPointe. Repeat measurements for other interventions were presented without baseline measures.
7.3 Did the analysis assess the statistical significance of any differences between the initial and repeat measurements?	● PM	Statistical significance (z-test) of the final hybrid HEDIS ADV Combo 10 rate in MY 2020 and MY 2021 was assessed. However, the statistical significance of changes in the secondary measures was not assessed.
7.4 Did the analysis account for factors that may influence the comparability of initial and repeat measurements?	● PM	Home State Health attributed the compliance results to the COVID-19 pandemic, where thousands of children had their dental care interrupted or postponed in MY 2020, generating a pent-up demand for dental visits in MY 2021. The denominator increased from 152,808 to 195,209, and while the actual percentage point increase from the previous year was minimal, the actual change in the ADV rate in MY 2021 was significant. There was no influence seen on the secondary measures.
7.5 Did the analysis account for factors that may threaten the internal or external validity of the findings?	● PM	The influence of the COVID-19 pandemic was reported. Any threat to the validity of findings was not addressed in the PIP.
7.6 Did the PIP compare the results across multiple entities, such as different patient subgroups, provider sites, or MCOs?	● NM	The PIP was not designed to address this requirement.
7.7 Were PIP results and findings presented in a concise and easily understood manner?	● PM	The PIP results and findings were easily understood. However, non-compliant members in the baseline year were not reported. A comparison was not made

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		using the same parameter (non-compliant members) for the MY 2020 and MY 2021.
7.8 To foster continuous quality improvement, did the analysis and interpretation of the PIP data include lessons learned about less-than-optimal performance? (Note: Analysis and interpretation of the PIP data should be based on a continuous improvement philosophy and reflect on lessons learned and opportunities for improvement.)	● NM	The PIP design was not such that it analyzed and incorporated lessons learned during the intervention at each measurement. The annual results were reported, and some opportunities for improvement were made for the future PIP.
7.9 Overall assessment/recommendations for improving the analysis and interpretation of PIP results.	● PM	The PIP should be designed to compare different provider groups or patient groups so that meaningful intervention results can be obtained. The baseline and measurement year must have a comparison corresponding to the same parameters. E.g., if non-compliant members are the focus of study in the measurement year, then the same must be reported for the baseline year. A baseline rate should be presented before the start of an intervention, followed by at least two remeasurements, and results analysis should be used for planning the subsequent intervention (PDSA cycle).

Step 8: Assess the Improvement Strategies

Component/Standard	Score	Comments
8.1 Was the selected improvement strategy evidence-based, that is, was there existing evidence (published or unpublished) suggesting that the test of change would be likely to lead to the desired improvement in processes or outcomes (as measured by the PIP variables)?	● NM	Home State Health did not provide information on this requirement. The interventions were continued from the previous year. The Eastern region had the highest percentage of members at 41.3% and was one of the smallest regions, so a decision was made to continue Affinia's intervention.
8.2 Was the strategy designed to address root causes or barriers identified through data analysis and quality improvement processes?	● NM	The strategies were not designed to address the intervention's root cause or barrier for poor results.
8.3 Was the rapid-cycle PDSA approach used to test the selected improvement strategy?	● NM	See comment in section 7.8.

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8.4 Was the strategy culturally and linguistically appropriate?	● PM	Home State Health did not report on the criterion in this section. However, Home State Health reported that they provide culturally sensitive healthcare services to its members.
8.5 Was the implementation of the strategy designed to account for or adjust for any major confounding variables that could have an obvious impact on PIP outcomes (e.g., patient risk factors, Medicaid program changes, provider education, clinic policies, or practices)?	● NM	No information was presented on confounding variables that may have led to the compliance of the dental visits for the interventions. Speculations were made for AlphaPointe intervention: Members with valid and unchanged phone numbers (resulting in successful calls) also influence the ability of the member to complete an annual dental visit through other external factors.
8.6 Building on the findings from the data analysis and interpretation of PIP results (Step 7), did the PIP assess the extent to which the improvement strategy was successful and identify potential follow-up activities?	● PM	The improvement strategies were not successful in achieving the aim of the PIP. The AlphaPointe successful contact was 10.10% of members who are non-compliant and achieved a compliance rate of 45.61% of these 10% members. Affinia intervention closed less than a 1% gap of the denominator. The Big Smiles intervention compliance rate was 5.29%. The final HEDIS ADV rate showed a statistically significant increase of 0.92% points (MY 2021-42.31%, MY 2020-41.39%). Home State Health identified the potential follow-up activities in the future PIP.
8.7 Overall assessment/recommendations for improving the implementation strategies.	● PM	The effectiveness of the improvement strategy should be determined by measuring a change in performance according to a predefined target or aim. Each intervention cycle should be followed by a root cause analysis of poor performance and incorporate feedback into the next invention cycle (PDSA) cycle.

Step 9: Assess the Likelihood that Significant and Sustained Improvement Occurred

Component/Standard	Score	Comments
9.1 Was the same methodology used for baseline and repeat measurements?	● PM	The baseline and repeat measurements for the primary measure were submitted using the same methodology. The repeat measurements were submitted for all the interventions. However, the baseline was

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		not submitted. Furthermore, refer to the comment in section 7.7.
9.2 Was there any quantitative evidence of improvement in processes or outcomes of care?	● FM	The final ADV rate showed a statistically significant increase of 0.92% points (MY 2021-42.31%, MY 2020-41.39%).
9.3 Was the reported improvement in performance likely to be a result of the selected intervention? (Conclusive demonstration through controlled studies is not required.)	● NM	Same comment as in section 8.6.
9.4 Is there statistical evidence (e.g., significance tests) that any observed improvement is the result of the intervention?	● NM	The statistical significance of the results from the intervention was not tested.
9.5 Was sustained improvement demonstrated through repeated measurements over time?	● NM	Sustained improvement could not be demonstrated through repeat measurements. See comment in section 8.6.
9.6 Overall assessment/recommendations for improving the significance and sustainability of improvement as a result of the PIP.	● PM	A target should be set for the intervention to achieve the PIP goal. The intervention should be adopted, adapted, or abandoned with each PDSA cycle based on the results obtained.

ACTIVITY 2: PERFORM OVERALL VALIDITY AND REPORTING OF PIP RESULTS

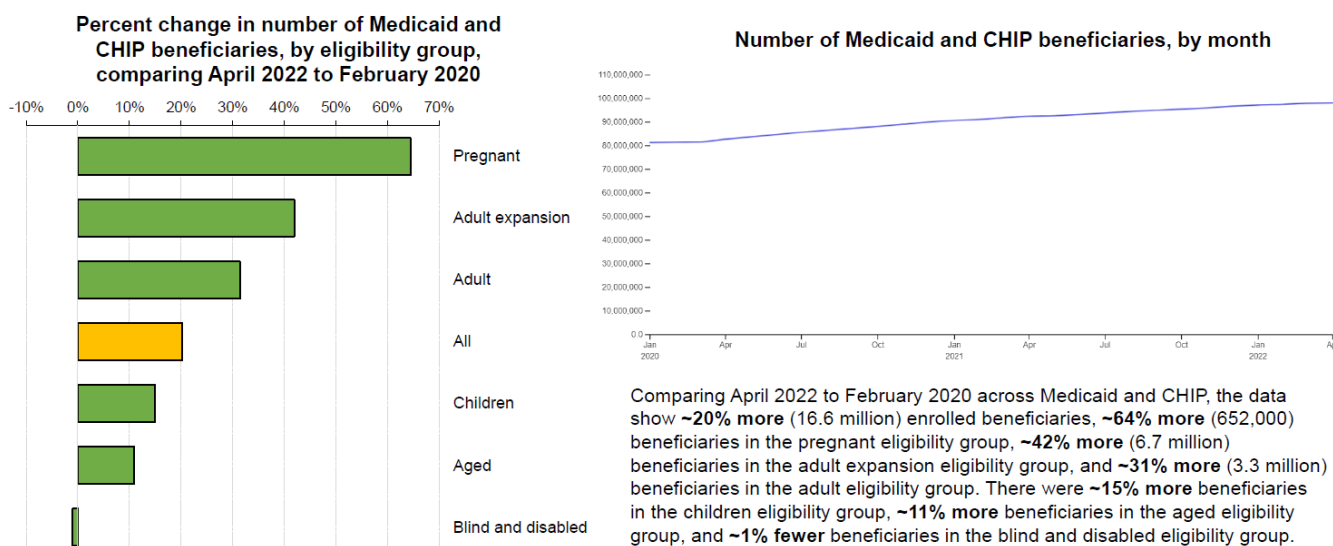
Perform Overall Validation of PIP Results

PIP Validation Rating (check one box)	Comments
<input type="checkbox"/> High confidence <input type="checkbox"/> Moderate confidence <input type="checkbox"/> Low confidence <input checked="" type="checkbox"/> No confidence	Home State Health did not meet the MHD's goal to increase the HEDIS ADV rate by 2% points from the previous year though the HEDIS ADV rate increased from 41.39% (MY 2020) to 42.31% (MY 2021) by 0.92% points which was a statistically significant improvement ($p < 0.00001$). Also, the PIP methodology was not sound/acceptable, so PTM assigned a score of "no confidence."

APPENDIX C: MEDICAID AND CHIP, AND THE COVID-19 DATA

PTM shares the following information with the MHD and Home State Health obtained from the CMS: “Based on an analysis of Transformed Medicaid Statistical Information System (T-MSIS) submissions during the COVID-19 Public Health Emergency (PHE), from March 2020-April 2022, over 130 million Americans, including children, pregnant women, parents, seniors, and individuals with disabilities, were enrolled across each state’s Medicaid or the Children’s Health Insurance Program (CHIP) for at least one day during the PHE period.”³ The Figures below show the overall enrollment, vaccination rate (<18 years), rate of child screenings services, and rate of dental services in children during this period.

Preliminary data comparing April 2022 to February 2020 show overall enrollment in Medicaid and CHIP for beneficiaries with full, comprehensive, and partial benefits increased by 20%, with the greatest percentage increases found in the pregnant, adult expansion, and adult eligibility groups



Notes: These data are preliminary. Data are sourced from the T-MSIS Analytic Files v7 in DataConnect. They are based on June T-MSIS submissions with enrollment through the end of May. Recent dates of enrollment have very little time for runoff, and we expect some changes in enrollment after each monthly update. Because data for May are incomplete, results are only presented through April 30, 2022. The baseline period includes Medicaid and CHIP eligibility data from February 2020 and the comparison period includes eligibility data from April 2022. These enrollment counts include Medicaid and CHIP beneficiaries with full, comprehensive, and partial benefits.

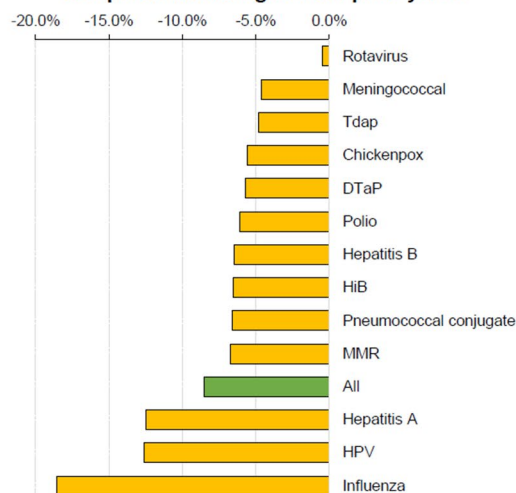
9

³ <https://www.medicaid.gov/state-resource-center/downloads/covid-19-medicaid-data-snapshot-04302022.pdf>

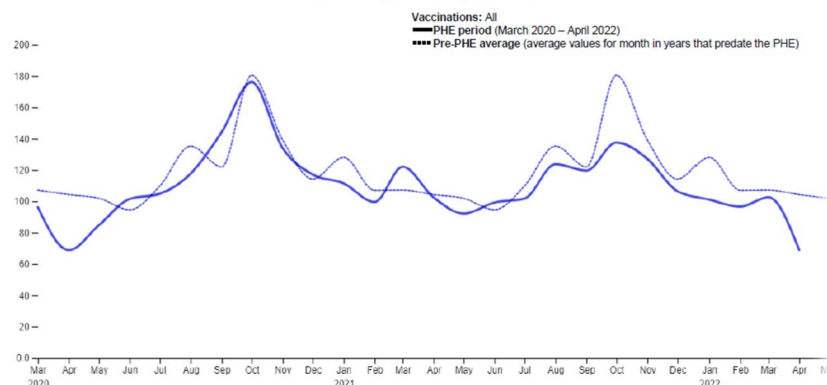
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Preliminary data show the vaccination rate among beneficiaries under age 19 declined for all vaccines during the PHE period compared to averages from prior years, and the percent decline varied by vaccination type

Percent change in the rate of vaccinations delivered to children under age 19 during the PHE compared to averages from prior years



Number of vaccinations per 1,000 Medicaid and CHIP beneficiaries under age 19, by month



Comparing the PHE period (March 2020 – April 2022) to the pre-PHE period, the data show that the average number of vaccinations per 1,000 beneficiaries under age 19 per month declined by ~9%.

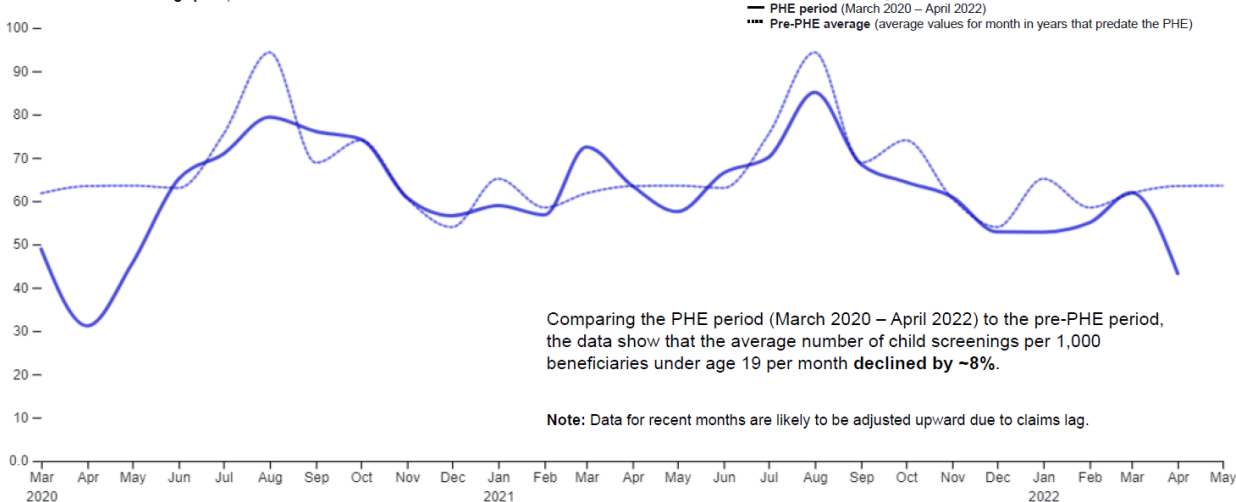
Note: Data for recent months are likely to be adjusted upward due to claims lag.

Notes: These data are preliminary. Data are sourced from the T-MSIS Analytic Files v7 in DataConnect using final action claims. They are based on June T-MSIS submissions with services through the end of May. Recent dates of service have very little time for claims runout, and we expect large changes in the results after each monthly update. Because data for May are incomplete, results are only presented through April 30, 2022. The PHE period includes data for March 2020 through April 2022. The pre-PHE average is the average of all values for that month in the years that predate the PHE, using data from January 2018 through February 2020. The PHE period rate may not be directly comparable to prior years' average rate since, for some states, there are increased suspensions of eligibility redeterminations during the PHE, which may inflate the denominator Medicaid population.

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Preliminary data suggest that after an initial decline, the rate of child screening services during the PHE rebounded starting in June 2020

Number of child screenings per 1,000 Medicaid and CHIP beneficiaries 18 and under



Comparing the PHE period (March 2020 – April 2022) to the pre-PHE period, the data show that the average number of child screenings per 1,000 beneficiaries under age 19 per month declined by ~8%.

Note: Data for recent months are likely to be adjusted upward due to claims lag.

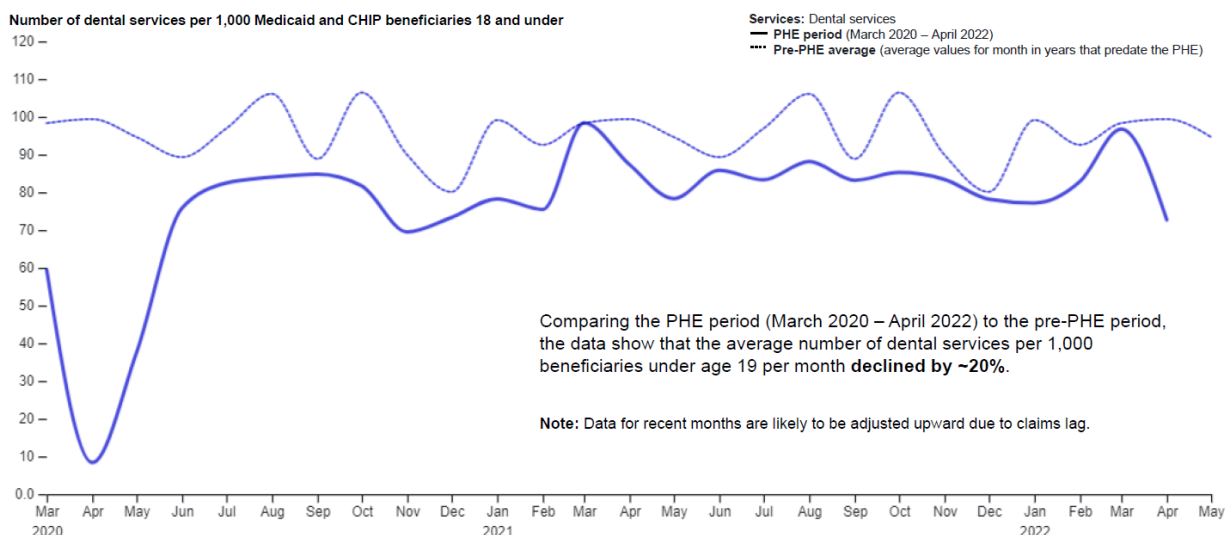
Notes: These data are preliminary. Data are sourced from the T-MSIS Analytic Files v7 in DataConnect using final action claims. They are based on June T-MSIS submissions with services through the end of May. Recent dates of service have very little time for claims runout, and we expect large changes in the results after each monthly update. Because data for May are incomplete, results are only presented through April 30, 2022. The PHE period includes data for March 2020 through April 2022. The pre-PHE average is the average of all values for that month in the years that predate the PHE, using data from January 2018 through February 2020. The PHE period rate may not be directly comparable to prior years' average rate since, for some states, there are increased suspensions of eligibility redeterminations during the PHE, which may inflate the denominator Medicaid population.

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Preliminary data show the rate of dental services for children during the PHE, after an initial steep decline, remained slightly below averages from prior years

Number of dental services per 1,000 Medicaid and CHIP beneficiaries 18 and under



Notes: These data are preliminary. Data are sourced from the T-MSIS Analytic Files v7 in DataConnect using final action claims. They are based on June T-MSIS submissions with services through the end of May. Recent dates of service have very little time for claims runout, and we expect large changes in the results after each monthly update. Because data for May are incomplete, results are only presented through April 30, 2022. The PHE period includes data for March 2020 through April 2022. The pre-PHE average is the average of all values for that month in the years that predate the PHE, using data from January 2018 through February 2020. The PHE period rate may not be directly comparable to prior years' average rate since, for some states, there are increased suspensions of eligibility redeterminations during the PHE, which may inflate the denominator Medicaid population.