Centers for Medicare & Medicaid Services

ORAL HEALTH

Initiative

Medicaid Oral Health Performance Improvement Projects: A How-To-Manual for States

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This manual can be accessed online at: http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Dental-Care.html

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Inside back cover: Percentage of Medicaid children ages 1–20 receiving a preventive dental service, federal fiscal year 2013, 50 states and the District of Columbia

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PREFACE

Medicaid Oral Health Performance Improvement Projects: A Template and the two how-to manuals that accompany it (see below) are intended to **support state and health plan[1] implementation of an oral health performance improvement project (PIP) in Medicaid.** Performance improvement projects are not new to Medicaid managed care. States are required by federal regulation to include the requirement to conduct PIPs in their contracts with managed care organizations (MCOs) and prepaid inpatient health plans (PIHPs).[2] States may extend the PIP requirement to other types of contracted plans, including dental maintenance organizations (DMOs), behavioral health organizations (BHOs), and prepaid ambulatory health plans (PAHPs) that provide carved-out (e.g., dental only) or otherwise limited (e.g., outpatient only) services.

PIPs are a valuable quality improvement strategy because they do the following:

1. Facilitate data-driven, customized interventions at the point of oral health care delivery
2. Create significant and uniform change in a state's Medicaid delivery system
3. Maximize the strengths of each health plan and leverage local oral health priorities and resources
4. Ensure plan accountability through incorporation into health plan contract requirements
5. Leverage the expertise of external entities, such as external quality review organizations (EQROs),[3] which already provide analytic support to state Medicaid managed care programs

PIPs are most effective when they align with other quality improvement initiatives, link to meaningful health plan and/or provider incentives, engage stakeholders in the planning and implementation stages, and are supported by technical assistance and capacity-building resources.

States have the flexibility to decide how many, and in what clinical and nonclinical areas, PIPs are conducted. To date, however, few states have used PIPs to advance children's oral health. **Health plans may need states to take the lead** in promoting oral health quality improvement and leveraging the significant opportunity PIPs present to improve oral health care quality. On their own, plans participating in a comprehensive risk arrangement (e.g., MCOs) may not prioritize oral health above other quality improvement concerns, particularly if they are responsible for multiple health care areas such as medical and behavioral health. Also, plans in dental carve-out arrangements may not have the financial or broader capacity to pursue a resource-intensive quality improvement effort. A state-led oral health PIP, however, can provide the needed wherewithal – **a concrete aim, data-driven analyses, specialized resources, and capacity-building support** – to motivate and lead health plans to improve performance.

Three resources have been developed to support state Medicaid agencies and their contracted health plans to develop Medicaid oral health PIPs:

1. *Medicaid Oral Health PIPs: A Template* ("PIP template")
2. *Medicaid Oral Health PIPS: A How-To Manual for States*
3. *Medicaid Oral Health PIPs: A How-To Manual for Health Plans*

The PIP template can be customized by **state Medicaid agency staff with responsibilities in children's oral health, quality improvement, and/or managed care oversight**. Subsequently, the template can be used by health plan staff during PIP implementation. The how-to manuals guide states and health plans on customization and use of the PIP template, respectively.

These resources have been developed through the **Oral Health Initiative**,[4] a federal effort through the Centers for Medicare & Medicaid Services (CMS) to advance improvements in children's oral health through the provision of performance data, tools, and technical assistance to states and their oral health stakeholders.

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[1] The term *health plan* is used in this document to refer to managed care organizations, prepaid inpatient health plans, dental maintenance organizations, and/or prepaid ambulatory health plans that administer oral health services and may perform oral health PIPs. Only MCOs and PIHPs are required by federal regulation to conduct PIPs.

[2] 42 Code of Federal Regulations §438.240(d).

[3] An EQRO is an organization that meets the competence and independence requirements set forth in 42 CFR 438.354, and performs external quality review (EQR), other EQR-related activities as set forth in 42 CFR 438.358, or both. An EQR is the analysis and evaluation of aggregated information on quality, timeliness, and access to the health care services that an MCO or PIHP, or their contractors, furnish to Medicaid recipients.

[4] Information on the Oral Health Initiative is accessible at http://medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-10-2014.pdf.

HOW TO USE THIS DOCUMENT

What does the manual include?

This manual provides guidance to state Medicaid agencies around effectively developing an oral health PIP, for health plans to implement using the PIP template. It seeks to ensure that the state's oral health PIP is

- Aligned with federal regulations and subregulatory guidance for PIPs;[5]
- Consistent with CMS's protocols for PIP implementation and validation;[6]
- Focused on achieving tangible and sustainable improvements in oral health utilization, quality, and/or timeliness;
- Based on continuous quality improvement principles;
- Supportive of CMS's oral health goals;[7] and
- Practical to adopt.

States can use this manual and the PIP template in conjunction with other tools and resources that support PIPs, such as those provided by external quality review organizations.

How is the manual organized?

This manual is organized by 10 chapters mirroring the 10 sections of the PIP template:

I. Background and Context
II. Select the PIP Topic
III. Identify the Population
IV. Define the PIP Aim
V. Select the Performance Measures
VI. Create a Data Collection Plan
VII. Plan the Intervention
VIII. Implement the Intervention and Improvement Strategies
IX. Analyze Data to Interpret Results
X. Plan for Sustained Improvement

Each chapter provides states with strategies and resources for developing the PIP, and suggestions for overseeing health plans during PIP implementation; each chapter ends with guidance on customizing the corresponding section of the PIP template for use by health plans. The manual concludes with a glossary of terms.

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[5] 42 Code of Federal Regulations §438.240(d).

[6] http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/EQR-Protocols.zip.

[7] Increase by 10 percentage points the proportion of Medicaid and CHIP children ages 1 to 20 (enrolled for at least 90 days) who receive a preventive dental service and increase by 10 percentage points the proportion of Medicaid and CHIP children ages 6 to 9 (enrolled for at least 90 days) who receive a sealant on a permanent molar tooth.

ORAL HEALTH PIP HOW-TO MANUAL FOR STATES

The content in this manual is directed to states that are interested in pursuing oral health PIPs as part of their oral health – and overall health care – quality improvement strategy.

I. Background and Context

*In the **Background and Context** section of the PIP template, the state shares its rationale for the oral health PIP with the health plan. The health plan subsequently describes its oral health priorities and quality improvement work to date as context for its PIP.*

***Read this chapter to understand** (1) the fundamentals of an oral health PIP, (2) how to identify high-priority opportunities for oral health quality improvement, and (3) the options for health plan involvement in an oral health PIP.*

What is an oral health PIP?

A PIP is designed to achieve, through ongoing measurement and intervention, significant improvement in clinical or nonclinical areas of health care delivery, sustained over time. PIPs must involve the following:

- Measurement of performance using objective quality indicators
- Implementation of system interventions to achieve improvement in quality
- Planning and initiation of activities for increasing or sustaining improvement
- Evaluation of the effectiveness of the interventions

State Medicaid agencies use PIPs to address deficits in specific areas of the health care delivery system. PIPs are generally conceptualized by the state and implemented – through targeted quality improvement interventions – by health plans.

States are required by federal regulation to include the requirement to conduct PIPs in their contracts with MCOs and PIHPs. States may extend the PIP requirement to other types of contracted plans, such as DMOs, BHOs, or PAHPs that provide carved-out (e.g., dental only) or otherwise limited (e.g., outpatient only) services. States can require these plans to conduct PIPs through state regulation, or these plans may be obligated through subcontracting arrangements with an MCO/PIHP.

States often require PIPs in multiple focus areas (e.g., asthma, behavioral health, medical record review) within and/or across health plans, addressing numerous areas for improvement in the delivery system.

An **oral health PIP** is a quality improvement effort to improve oral health care for children and youth enrolled in Medicaid/ Children's Health Insurance Program (CHIP) across three key areas:

- **Utilization:** The degree to which members are receiving or using a particular service.
- **Quality:** The degree to which services (1) increase the likelihood of desired health outcomes of members and (2) are evidence based and delivered according to professional standards of care.
- **Timeliness:** The degree to which the provision of services – prevention, treatment, and follow-up – are aligned with the urgency of the need for services. It is also the age appropriateness of services for children and youth, per their developmental stage.[8]

[8] Timeliness also refers to abidance to standards for timely access, such as hours of operation and seven-day availability of services when medically necessary.

Determining a Baseline for Oral Health Care Utilization, Quality, and Timeliness

The first step for the state in developing an oral health PIP is to identify baselines for oral health care service utilization, quality, and timeliness among Medicaid-enrolled children and youth. The following data assessments can paint a picture of the current oral health care landscape and how it be may be improved through a PIP:

1. *Assess how the state's Medicaid oral health care service utilization, quality, and/or timeliness compare to*
   - National Medicaid performance;
   - Other states' Medicaid programs with similar delivery systems;
   - Commercial performance in your state; and/or
   - The goals set by federal authorities, such as CMS and the Centers for Disease Control and Prevention.

RELEVANT RESOURCES

- State Medicaid Oral Health Performance Trends
- Commercial Oral Health Performance
- Oral Health Goals in *Healthy People 2020*
- Centers for Disease Control and Prevention's *Oral Health Strategic Plan*

About the CMS Oral Health Initiative

The goals of the CMS Oral Health Initiative (federal fiscal years 2011–2015) are to

- Increase the rate of children ages 1–20 enrolled in Medicaid or CHIP (for 90 continuous days) who receive a preventive dental service by 10 percentage points over a five-year period ending in federal fiscal year 2015 and
- Increase the rate of children ages 6–9 enrolled in Medicaid or CHIP (for 90 continuous days) who receive a dental sealant on a permanent molar tooth by 10 percentage points over a five-year period.

Related Resources

- CMS Oral Health Initiative Strategy and 2014 Update
- Secretary's Report: Use of Dental Services in Medicaid and CHIP
- State Baselines, Goals, and Progress

2. *Assess how oral health care service utilization, quality, and timeliness vary* ***across different types of oral health care services*****,** such as preventive, restorative, and treatment services.

3. *Assess how oral health care service utilization, quality, and timeliness for a given service vary* ***by member and delivery system characteristics***, such as the following:
   - *Member demographics:* age, gender, race/ethnicity, primary language, geography, education, literacy, length of enrollment, and eligibility category (including foster care status)
   - *Dental and medical risk factors:* children with special health care needs, asthma, childhood obesity
   - *History of dental service use:* no dental visit in at least one year, absence of sealants
   - *Benefit administration:* comprehensive managed care, carve-out, dental benefits manager
   - *Provider type:* safety net, dental providers, primary medical care providers
   - *Provider network scope and adequacy:* open versus assigned providers, dental home, directly contracted versus dental network vendors, enrollee-to-dentist ratios, travel distances, appointment wait times, utilization per geographic area
   - *Provider participation rates:* percentage of state-licensed dentists contracted with Medicaid, percentage billing at least one claim in a year, percentage billing at least $10,000 annually, percentage of enrolled primary care physicians billing for fluoride varnish
   - *Reimbursement methods:* fee-for-service, capitation, prospective payments, value-based purchasing arrangements, variance in payment rates
   - Other data that might be available in your state, such as public health prevalence rates

4. *Assess how oral health service utilization, quality, and timeliness vary* ***among the health plans in the state****.* States can consider grouping the plans by characteristics, such as the following:

- Size and market share
- Provider network features
- Rural versus urban
- Number and focus of customer complaints
- Member satisfaction (e.g., Consumer Assessment of Healthcare Providers and Systems).

Determining State Capacity for an Oral Health PIP

Data assessments may point to several potential focus areas for the oral health PIP. The actual scope of the oral health PIP will depend on the state's capacity to manage a statewide quality improvement effort. States should think through the following key factors:

- **Project oversight and data analytic capacity**. Overseeing a PIP requires frequent communication with health plans, as well as regular project management and data analysis. This workload can be mitigated by using independent contractors, such as EQROs, to conduct some data-related, evaluative, and interactive functions with health plans. States can also consider assigning select data assessments to health plans directly, to help the health plans develop their own projects.

- **Prior experience with quality improvement**. Lessons learned from past PIPs and other quality improvement initiatives can provide states with a sense of how change occurs in the delivery system. Historic health plan performance data can also point to trends and highlight gaps in care delivery that may benefit from a renewed improvement effort.

- **Political climate**. Oral health–related state legislation, the governor's agenda, the state's relationship with health plans, and/or landmark events (e.g., dental-related incidents garnering media attention) can influence state oral health priorities and readiness for undertaking a new quality improvement project.

SPOTLIGHT: External Quality Review Organizations

Per federal regulation, states that contract with an MCO or PIHP must validate PIPs based on CMS protocols; validation can be performed by the state, an external agent appointed by the state, or an EQRO. EQROs can also be used to provide technical assistance to health plans – including those not bound to conduct PIPs by regulation – and to contribute to state oversight and development of the PIP. The EQRO can also assist the state with critical activities during PIP planning and implementation, including the following:

- Analyzing data to determine where opportunities for improvement exist
- Structuring the PIP to ensure that it "asks the right questions"
- Developing validation tools to evaluate the structure, relevance, and outcomes of PIPs submitted by health plans
- Validating PIPs at regular intervals to verify that projects are progressing and have the potential to bring about real and sustained improvements
- Facilitating work groups to identify and evaluate interventions
- Providing technical assistance to states and health plans on the proper application of (1) quality improvement tools to analyze barriers or gaps (e.g., a fishbone diagram, key driver diagram, focus groups, surveys) and (2) methods to analyze results (e.g., subgroup analyses, drill-down analyses)

Determining the Scope of Health Plan Participation

States may require all plans, or a subset, to participate in the oral health PIP. The scope of health plan participation may depend on where the greatest opportunity to advance oral health care lies. For example, if significant disparities in oral health care utilization are experienced by members in rural areas or in a particular county, plans in those areas may be the best choice for participation in an oral health PIP. Or, if closed provider networks are a strong driver of variation in quality, states can identify health plans with closed networks to participate. Alternatively, states may choose their lowest-performing plans across a set of identified oral health measures. The final decision will depend on the state's capacity to provide appropriate project oversight to participating health plans and on whether it wants to promote oral health care improvement in a targeted or broad manner.

Supporting Meaningful Health Plan Participation

Engaging health plans effectively is essential to a successful PIP. MCOs and PIHPs have coverage responsibilities beyond oral health (e.g., physical, behavioral health) and may need additional incentives to devote resources to oral health. DMOs and PAHPs may have few financial or organizational resources to dedicate to a large quality improvement effort. To promote health plan engagement, state oral health PIPs should

- Overlap or align with other quality reporting or improvement initiatives (e.g., reporting of the Children's Core Measure set, meaningful use compliance, medical-dental collaborations, performance-based payment incentives);
- Support health plans to develop oral health quality improvement capacity (e.g., leadership buy-in, staff training, data infrastructure);
- Create reasonable performance improvement expectations; and/or
- Include implementation tools and resources.

PIP TIP: Meaningful Health Plan Participation

States can consider policy levers to motivate meaningful health plan participation in the oral health PIP. Health plans may be reluctant to commit resources to the oral health PIP due to low Medicaid provider participation or cooperation, inexperience in oral health quality improvement, a lack of incentives, and/or competing priorities. The following are potential strategies for states to address these issues:

- Share information with health plans to build interest and incentivize improvement, including
  - Performance of other states/health plans (see inside of back cover),
  - Key legislation or support from state leaders and/or champions, and
  - News media stories.
- Create financial incentives for sustained improvement, or disincentives for poor performance.
- Support health plans with quality improvement resources, including
  - Key data and/or analysis tools,
  - Intervention options and decision-making support,
  - Training and/or access to peer learning collaboratives, and
  - Technical assistance from an EQRO or other performance improvement and data evaluation experts.

Related Resource

- Medicaid Contracting Strategies to Improve Children's Oral Health Access

Customizing the *Background and Context* Section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

I. Background and Context

State Guidance: **In this gray box, the state can provide the health plan with information about the state's oral health program and rationale for pursuing the PIP, including the following:**

- **Importance of oral health for children in Medicaid**
- **Barriers to children accessing oral health care and the implications of poor access (e.g., health outcomes, costs, social functioning, school attendance and performance)**
- **Overview of utilization, quality, and timeliness of oral health care in the state's Medicaid delivery system**
- **Performance of single health plans and all health plans on oral health quality measures important to the state**
- **The state's oral health strategy, including relevance to federal oral health goals (e.g., CMS's Oral Health Initiative)**

Describe your health plan's oral health priorities and quality improvement work to date, including the following:

- Covered oral health services
- Market size, geography, and scope
- Characteristics of provider network
- Performance on utilization, quality, and timeliness of oral health services
- Current/past quality improvement initiatives
- Leadership support for quality improvement activities

II. Select the PIP Topic

*In the **Select the PIP Topic** section of the PIP template, the state and/or health plan identifies the topic, or focus, of the oral health PIP.*

***Read this chapter to understand how to** (1) identify the topic for the oral health PIP, (2) engage with key stakeholders, and (3) consider options for health plan flexibility within the oral health PIP.*

The PIP topic reflects the state's vision for the oral health PIP, describing its desired improvement in a particular aspect of oral health service utilization, quality, and/or timeliness. Although many areas of oral health care delivery may benefit from a concerted quality improvement effort, not all are ideal for a PIP. States can conduct the following activities to identify the appropriate PIP topic:

Understand which aspects of oral health care quality are a priority for stakeholders.

- These may span various aspects of the state's oral health care delivery system, such as prevention, treatment services, clinical outcomes, practice infrastructure (e.g., use of electronic health records among dental providers), member satisfaction, costs (e.g., preventable dental-related emergency room visits), and oral health literacy. States should meet with stakeholders to identity the highest-priority focus areas.

SPOTLIGHT: Stakeholder Engagement

To ensure a successful oral health PIP, states should find early and regular opportunities to obtain input from stakeholders around the Medicaid oral health delivery system. Gaining the opinions and trust of those who will be integral to the PIP (e.g., health plans, dental providers, consumers) and finding common goals are essential, particularly when launching a new effort. The following are key activities for engaging stakeholders:

- Convene conversations with and seek input from those with investments in the Medicaid oral health system, including
  - Contracted health plans;
  - Dental providers and provider associations, including safety-net providers;
  - Consumers and caregivers;
  - Oral health coalitions;
  - Public health and child-serving agencies; and
  - Community organizations.
- Use private meetings, public forums, surveys, websites, and social media to understand the priorities of these groups and to vet specific visions for the oral health PIP.
- As the oral health PIP develops, allow for specific input into components of the project – particularly those that place new requirements on providers, require multilevel or multisector collaboration, and/or are resource intensive.
- Create an oral health PIP advisory committee that includes representatives from these stakeholder groups and meets regularly through the planning and implementation phases of the oral health PIP.

Related Resource

- Stakeholder Engagement in Design, Implementation, and Oversight

Focus on issues or align with projects for which state or health plan quality improvement efforts may exist.

- These projects may include (1) transformation into a dental home, (2) partnerships with an oral health coalition, (3) public health improvement initiatives, (4) medical-oral health collaborations, (5) dental electronic health record adoption programs, and/or (6) quality measure reporting.

Identify aspects of oral health care delivery or quality measures for which data are accessible and meaningful.

- Data for the PIP should not be burdensome to collect or analyze. States should select a PIP topic that can be measured through available and reliable data such as claims or other administrative data, provider files

(which do not require extensive medical record review), member-health plan communications, and/or member satisfaction surveys. Data with available benchmarks at the health plan, state, or national level are also helpful for evaluating the progress and impact of a PIP.

Determine the time frame for documenting positive change.

- PIPs can range in length from six months to several years. CMS requires that PIPs include reports from at least three measurement points: a baseline and two remeasurement points. States should consider the minimum time frame needed to see meaningful improvement when setting the remeasurement periods. States might also consider the time frame necessary to develop the staffing and other resource capacity for providing project oversight to the participating plans (this may be less of a concern if an external entity, such as an EQRO, is assisting the state).

Identify populations that are at higher risk of experiencing poor oral health and that represent the greatest opportunity for improvement.

- These may include Medicaid-enrolled children and youth who (1) represent diverse racial/ethnic groups; (2) have limited English proficiency; (3) are in foster care; (4) have special health care needs (e.g., developmental disabilities); (5) live in underserved areas (e.g., rural or poor urban); (6) have a family history of dental disease; (7) have or are at risk for obesity, asthma, or other chronic medical conditions; (8) have serious behavioral health conditions; and/or (9) have high rates of emergency room and/or operating room use for dental needs.

SPOTLIGHT: Identifying and Addressing Disparities in Care

States can use the following National Quality Forum principles for identifying how "disparities-sensitive" a particular service, quality measure, or aspect of care may be:[9]

- **Prevalence:** How prevalent is the condition (e.g., caries in children) targeted by the quality measure in the disparate population?
- **Impact of the condition:** What is the impact of the dental condition on the health of the disparate population relative to other conditions (e.g., pain, interference with development, lost school days, quality of life, stigma)?
- **Quality gap:** How large is the gap in quality between the disparate population and the group with the highest quality for that measure?
- **Communication:** Does the process for achieving the outcome depend heavily on provider communication with and outreach to patients? How might gaps in language, culture, or literacy play a role?

When identifying potential racial/ethnic disparities, one can consider aspects of care – provider communication, self-management, lifestyle choices, and availability and cost of resources – that are most likely to differ among patients based on language, culture, health literacy level, and/or geography. Race, ethnicity, language, or other demographic data can be used to stratify performance measures of oral health care access, quality, and timeliness. Making this a regular part of the performance measurement and quality improvement process will help in monitoring disparities beyond the time frame of the PIP.

Related Resources

Policy Context

- Racial and Ethnic Disparities in Dental Care for Publicly Insured Children
- Improving Access to Oral Health Care for Vulnerable and Underserved Populations

Data Collection, Training, and Application of Race, Ethnicity, and Language Data

- Explanation of Federal Standards for the Collection of Race, Ethnicity, and Language Data
- America's Health Insurance Plans: Data Collection on Race, Ethnicity, and Language

Implementing Quality Improvement Interventions to Address Racial/Ethnic Disparities

- Roadmap to Reduce Disparities

Workforce Training

- Think Cultural Health: Cultural Competency Programs for Oral Health Professionals

[9] Weissman JS, Betancourt JR, Green AR, et al. "Commissioned Paper: Healthcare Disparities Measurement." Washington, DC: National Quality Forum, 2012.

Determining the Prescriptiveness of the PIP Topic

The state may prescribe a specific PIP topic for the health plans – for example, *improving dental sealant application among adolescents,* or *improving access to preventive dental services for children with special health care needs.* Or, the state can provide health plans a general area of focus based on

- Service type,
- Priority population,
- Target demographic,
- Geographic area,
- Another focus area (e.g., coordination with primary care), and/or
- A combination of these.

The state may prescribe a different topic for each health plan based on the latter's greatest performance improvement need, or the state may leave that decision for the health plan based on its market, organizational priorities, and own quality improvement goals. When more flexibility is given to the health plans, they may be more engaged and better resourced to pursue their projects; however, this may lead to less-meaningful improvements in any one area across the state. When determining its degree of prescriptiveness, states should consider the following:

- Past health plan performance in the state's area of interest
- Experience and outcomes of health plan participation in other PIPs
- Degree of interest and knowledge among the health plans in oral health quality improvement
- Scope of impact expected from the health plans' efforts

States that allow health plans to select their own topic should provide practical parameters to help inform these decisions. For example, the degree of, and time frame over which, improvement is expected; the frequency of data reporting to the state; and the level of technical assistance provided through the course of the PIP.

Communicating the PIP Topic to Health Plans

Health plans should have direct input on the state's choice of PIP topic and broader PIP design. States can conduct concerted outreach with the health plans – private meetings, public forums, surveys, and work groups – to communicate the vision for the oral health program, understand the health plans' perspectives, and discuss potential barriers to care (including policy and administrative requirements). By seeking this input, states build trust, help identify common goals, and create engaged partnerships with plans to further the success of the PIP.

It is also important for states to communicate with health plans using concrete data related to the PIP topic, to aid the health plans' goal setting and commitment to the PIP effort. These data can include the following:

- Medicaid health plan performance averages, nationally and in the state
- Individual Medicaid health plan performance metrics
- Commercial health plan averages in the state
- Oral health care utilization, quality, and timeliness benchmarks set by state or federal authorities
- Other data, such as regional or public health reports, that reinforce the importance of the identified topic and/or provide some comparison or benchmark for each health plan's aims and progress.

States should stratify these data by region, care setting, type of provider network, and/or other available care delivery characteristics. This will enable health plans to better understand the specific factors at the point of care delivery that are driving poor performance, allowing them to target their PIP efforts toward specific providers and particular aspects of care.

Customizing the *Select the PIP Topic* Section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

II. Select the PIP Topic
State Guidance: **In this gray box, the state can provide the health plan with the PIP topic or with guidance for choosing its own topic. Concrete data such as the health plan's performance to date and/or comparative benchmarks can also be shared as context for the selection of topic and to motivate PIP implementation. The state can modify or delete the questions below if the PIP topic is being prescribed to the health plan. For example, the state may instead want to ask a question about how the prescribed PIP topic fits in with the health plan's existing quality improvement goals.**
What is your PIP topic?
How did you select the PIP topic? Include rationale and key data.

III. Identify the Population

In the ***Identify the Population*** *section of the PIP template, the state and/or health plan identifies and describes the focus population for the oral health PIP.*

Read this chapter to understand how to *(1) identify the population of focus for the oral health PIP, (2) consider options for health plan flexibility around population selection, and (3) determine useful stratifications of the population data.*

The PIP population refers to the health plan members who are the recipients or targets of the PIP quality improvement intervention. Although the goal of the PIP may broad (e.g., *improving utilization of preventive services*), a PIP should identify a subpopulation to target. The selection of this particular group of members will depend on the PIP topic and where the greatest opportunity to "move the needle" lies. For example, a new public health campaign targeted at schools may be increasing oral health literacy among 6–9-year-olds, but leaving out younger children. A PIP that focuses on increasing utilization of preventive services for 3–6-year-olds as a result could fill that gap. Alternatively, states may decide to focus additional efforts on 6–9-year-olds, because they are already involved in the school program and are thus more likely to engage with an outreach intervention. Some PIP topics may also implicitly prescribe a narrow PIP population, based on the clinical relevance or nature of the issue being addressed – for example, the *application of dental sealants for children ages 6–9* or the *reduction of disparities in treatment services experienced by African American children*.

Stratifying the PIP Population

An important component of identifying the PIP population is characterizing it as specifically as possible through additional data. Stratification of population data by descriptive variables can help health plans (1) understand the range in demographics and care needs of the members receiving the PIP intervention, (2) create a more culturally and linguistically appropriate intervention, (3) track and compare the progress of specific subpopulations during implementation, and (4) interpret PIP results to identify which strategies worked (and which did not) for specific populations. States can require health plans to stratify their PIP population by a variety of key variables, such as the following:

Demographic information

- Age
- Gender
- Race/ethnicity
- Language
- Area of residence

Structural and behavioral information

- Access to fluoridated water
- Tooth care (e.g., brushing, flossing) behaviors
- Consumption of sugary snacks and beverages
- Member satisfaction with the delivery system
- Oral health care provider
- Relevant dental and/or medical diagnoses and associated utilization of dental services (e.g., topical fluoride treatment, diabetic status)

High-risk status

- Chronic medical or behavioral health diagnosis
- High number of emergency room or hospital visits
- Family history of caries, or other indicators of risk for caries
- Involvement in child welfare or juvenile justice
- Special health care needs

SPOTLIGHT: Children at High Risk of Oral Health Disease

Caries Risk Assessment

The latest guidelines for caries risk assessment highlight key factors contributing to high-risk status for infants, children, and adolescents. Some nonclinical factors include (1) presence of caries in the parent, (2) socioeconomic status, (3) intake of sugary snacks and beverages between meals, and (4) recent immigrant status.

Related Resources

- American Academy of Pediatrics Oral Health Risk Assessment Tool
- American Academy of Pediatric Dentistry Guideline on Caries-risk Assessment and Management for Infants, Children, and Adolescents
- DentaQuest Institute's Early Childhood Caries Collaborative
- CAMBRA: Best Practices in Caries Management

Oral Health Care for Children with Special Health Care Needs

Children with special health care needs – those with developmental disabilities, behavioral issues, or physical limitations – are a high-risk population with particular oral health challenges. Their parents/caregivers may require assistance in identifying Medicaid-contracted dentists who are familiar with their needs, extra time and attention during the dental visit, and additional support around home care and prevention. The following approaches can improve oral health care access, quality, and timeliness for these children:

- **Pre-appointments:** These give children and their caregivers a chance to become familiar with the dentist, exam room, and equipment before an examination or procedure, helping them feel more comfortable and cooperative.
- **Accessibility:** Areas inside and outside the dentist's office must be accessible; wheelchairs should be able to fit through the front door and into the examination room.
- **Specialized clinical training:** Some general dentists and most pediatric dentists receive special training to treat children with special needs. If health plans can identify those with training and/or experience caring for this population, caregivers may choose such providers. These practitioners will be better prepared to communicate appropriately with the child and caregiver; provide the required time, attention, and clinical guidance; and impart appropriate advice for healthy dental behaviors.
- **Sedation:** Children with special needs may have unpredictable and/or exaggerated responses to sedation. Sedation should thus be customized: some children may require general anesthesia, whereas others require only mild to moderate oral sedation.
- **Access to supportive resources:** Advocacy groups provide children with special needs and their families help navigating the dental care system and emotional support. Family Voices is a network of family members of children with special needs that provides information to families on a variety of topics, including oral health.

Related Resource

- National Maternal and Child Oral Health Resource Center: Focus on Children and Adolescents with Special Health Care Needs

Identifying the Data Sources and Processes for Extraction

A rich and specific characterization of a PIP population can help to create an impactful PIP intervention, but health plans need a feasible plan for obtaining the required data elements, relying on sources and processes such as the following:

Sources

- Enrollment files
- Encounter data (claims files)
- Registries
- Risk assessment reports
- Member surveys and/or complaint logs

Processes

- Automated data queries

- Interdepartmental data requests
- Manual data review

States should consider the type and frequency of data support health plans will need (e.g., linking claims and enrollment files) for this phase of the PIP. For example, health plans may need to learn about key changes in the PIP population (e.g., disenrollment; changes of status in eligibility, disability, or foster care) over the course of the project. States can use vendors, such as EQROs, to maintain technical assistance relationships with health plans around identifying and maintaining population data.

Population Sampling

Including all members in a particular aim is sometimes not feasible, in which case a sample to represent the entire population must be used. This may be needed when

- Data for the PIP cannot easily be obtained via automated processes (e.g., medical record extraction);
- Inclusion criteria limit the size of the intervention population (e.g., minimum months of enrollment);
- The nature of the intervention requires one-on-one engagement that cannot be done with all members in a limited time period (e.g., motivational interviewing for behavior change); and/or
- The population of the PIP aim is very broadly defined.

As necessary, states should provide guidance on sample size so that health plans can identify a statistically appropriate number of patients for their intervention. Health plans may use probability sampling to identify an unbiased, randomly chosen sample set (e.g., use a random number generator to identify participating members), or use non-probability sampling that identifies specific features of the population (e.g., recently missed appointments) for inclusion. The latter is more common in quality improvement efforts such as PIPs, which usually target members to bring out specific impacts. The state should consider providing guidance – or support from a technical assistance provider, such as an EQRO – to help health plans determine and implement the best sampling options.

RELEVANT RESOURCES

- Sampling Considerations in Health Care Improvement
- Sampling Tool
- Managing Data for Performance

Customizing the *Identify the Population* Section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

III. Identify the Population
State Guidance: **In this gray box, the state can assign the focus population for the PIP or share relevant information to support the health plan in identifying its own. The state can also share any requirements around population sampling, required data stratification, or use of specific data sources. For example, the state may assign a broad population focus (e.g., utilization of treatment services among preteen children) but require the tracking of specific age groups throughout the PIP.**
What population is your PIP targeting? Indicate if a representative sample will be used instead of the entire population. Describe key stratifications (e.g., age, race/ethnicity) of the population.
Describe the data sources and protocols you will use to identify and stratify the PIP population.

IV. Define the PIP Aim

*In the **Define the PIP Aim** section of the PIP template, the state and/or health plan identifies the specific objective of the oral health PIP.*

***Read this chapter to understand how to** determine the components of the PIP aim.*

The PIP aim translates the PIP topic into a concrete goal statement. A good aim statement is SMART:

- **S**pecific: well-defined and clear, and has a better chance of being reached than a general aim.
- **M**easurable: tied to a starting point, target, and benchmark for achievement.
- **A**chievable: can actually be reached, as evidenced by past achievements and existing resources.
- **R**elevant: is pertinent to the organization's mission and quality improvement goals, and agreed upon by stakeholders.
- **T**imely: has a set time frame within which it should be met.

The aim statement should include the desired change, the degree of improvement, and the period of time over which this change is expected to take place. For example, if the PIP topic is "Improving utilization of preventive services among young children," the aim statement might be "In 12 months, increase the percentage of 6–9-year-old members who receive a dental sealant on a permanent molar tooth by 5 percentage points."

The aim can be a rate of improvement (e.g., an increase of 10 percentage points), or a specific target (e.g., rate of 75 percent). The aspiration should be bold (a stretch if achieved) yet attainable within the time allotted for the PIP. It should create a focus and sense of urgency within the health plans but also be realistic based on what the evidence suggests is possible. In thinking through this, states can consider rates of improvement that other states have achieved[10] in similar time frames (please refer to state rates for children's preventive dental services use on the inside of the back cover of this report).

Customizing the *Define the PIP Aim* section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

IV. Define the PIP Aim
***State Guidance**: In this gray box, the state can provide the health plan with the PIP aim or with guidance for selecting its own. Additional information – such as key benchmarks or performance standards related to the aim – can also be provided.*
What is your PIP aim? The aim should include the desired change, the targeted degree of improvement, and the period of time over which this change is expected to take place.

[10] For data on state oral health performance trends (2000–2012, 2013):
http://www.medicaid.gov/medicaid-chip-program-information/by-topics/benefits/downloads/dental-trends-2000-to-2012.pdf
http://content.govdelivery.com/attachments/USCMS/2013/04/18/file_attachments/205273/CIB-04-18-2013.pdf

For data on state oral health PIPs:
http://www.medicaid.gov/medicaid-chip-program-information/by-topics/quality-of-care/downloads/2014-child-sec-rept.pdf, page 16, table 6.

V. Select the Performance Measures

*In the **Select the Performance Measures** section of the PIP template, the state and/or health plan identifies the primary performance measures that will be used to evaluate the impact of the PIP, and identifies other measures that will aid implementation.*

***Read this chapter to understand how to** (1) identify a targeted set of measures for the oral health PIP and (2) consider feasibility of collection for the health plans.*

Primary Measure and Secondary Measures

Quality metrics chosen by the state are used to evaluate PIP success. Although there can be many, there generally is one **primary measure** that evaluates the *impact* of the PIP. It is practical to choose this measure from the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) (CMS-416 form) reporting set, Core Set of Children's Health Care Quality Measures for Medicaid and CHIP, and/or CMS's Oral Health Initiative (see Exhibit 1). Most of these measures are already reported by states (and in turn, health plans) and have available national benchmarks. A state-specific, home-grown measure is also a viable option to the extent that the burden of collection is not prohibitive to health plan participation.

Exhibit 1: Key Children's Oral Health Measures in Medicaid

Measure Set	Measure
EPSDT (Also reported by states on the CMS-416 form)	Any dental services by or under the supervision of a dentist
	Preventive dental services by or under the supervision of a dentist
	Dental treatment services by or under the supervision of a dentist
	A sealant on a permanent molar tooth
	Diagnostic dental services by or under the supervision of a dentist
	Oral health services provided by a non-dentist provider
	Any dental or oral health service by or under the supervision of a dentist or an oral health service by a non-dentist
Core Set of Children's Health Care Quality Measures for Medicaid and CHIP	Proportion of children who received preventive dental services
	Proportion of 6–9-year-old children at elevated caries risk who received dental sealants
CMS Oral Health Initiative	Proportion of children ages 1–20 enrolled in Medicaid or CHIP for at least 90 continuous days who receive a preventive dental service by 10 percentage points over a five-year period
	Proportion of children ages 6–9 enrolled in Medicaid or CHIP for at least 90 continuous days who receive a dental sealant on a permanent molar tooth by 10 percentage points over a five-year period

Source: Adapted from Glassman, P. "Oral Health Care Quality Improvement in the Era of Accountability." Pacific Center for Special Care. June 2011.

For a larger list of measures, consider the set compiled by the Dental Quality Alliance.

In dental quality measurement, process measures – those that refer to engagement of a member or system (e.g., *application of dental sealants, months since last preventive dental service,* and *average wait time for dental appointment*) – are more common than outcome measures. The latter refer to the actual impact on the member or system (e.g., *absence of early childhood caries* or *presence of dental disease*). The limited ability to report diagnoses in dental claims and the longer time frame needed for improvement in outcome measures make process measures more ideal for oral health PIPs. See Exhibit 2 for a set of measures conducive to one-year projects,

compiled by the Dental Quality Alliance. These are organized by common measurement categories in children's oral health: utilization; oral evaluation; prevention; and treatment.

Exhibit 2: One-Year Measures from the Pediatric Dental Quality Measure Set

Measurement Domain	Description
Utilization	Percentage of all enrolled children under age 21 who received at least one dental/oral health service within the reporting year.
Oral evaluation	Percentage of ▪ Enrolled children under age 21 and ▪ Enrolled children who received at least one dental/oral health service who received a comprehensive or periodic oral evaluation within the reporting year.
Prevention: Fluoride or sealants	Percentage of ▪ Enrolled children under age 21 and ▪ Enrolled children who received at least one dental/oral health service at elevated caries risk (i.e., "moderate" or "high" risk) who received topical fluoride application and/or sealants within the reporting year.
	Percentage of ▪ Enrolled children under age 21 and ▪ Enrolled children who received at least one dental/oral health service in the age categories of 6-9 years at elevated caries risk (i.e., "moderate" or "high" risk) who received a sealant on a first permanent molar tooth within the reporting year.
Treatment	Percentage of: ▪ Enrolled children under age 21 and ▪ Enrolled children under age 21 who received at least one dental/oral health service who received a treatment service within the reporting year.

Source: Adapted from "Pediatric Oral Health Performance Measure Set Request for Proposal for Testing Data Source: Administrative Data." Dental Quality Alliance. 2012. Available at http://www.ada.org/~/media/ADA/Science%20and%20Research/Files/dqa-pediatric-measure-set-rfp.ashx

Secondary Measures

States can also encourage health plans to create a broader measurement set that provides a more complete picture of system performance. The PIP template refers to these other measures as **secondary measures**; these are not necessarily tied directly to the PIP aim, but they provide important information about related dental care for targeted members. For example, the PIP aim may be to improve rates of dental sealant application for children ages 6–9; but a measure that tracks other preventive dental services received (or not) by the same members can help the health plan identify subgroups at higher risk or shed light on successful strategies that can be leveraged toward the PIP's primary measure. When identifying secondary measures, consider the domains highlighted in Exhibit 3.

Exhibit 3: Secondary Measure Classifications and Examples

Measure Domain	Definition	Example
Structure of care	A feature of an organization that impacts its capacity to provide high-quality care	Ratio of dental providers (e.g., dentists, dental hygienists) to patients
Experience of care	A member's report concerning observations of, and participation in, health care	Percentage of members reporting unmet dental care needs
Management of care	A feature of an organization related to the administration or oversight of facilities, professionals, and staff who deliver health care	Percentage of providers receiving cultural competency training
Use of services	The encounters, tests, or interventions that are part of care but are not part of formalized quality measurement	Percentage of members who received oral prophylaxis
Costs of care	The monetary or resource units expended by an organization to deliver health care	Cost per dental-related emergency room visit
Clinical efficiency	Ability to maximize the number of comparable units of health care delivered for a given unit of health resources used	Percentage of dental-related emergency visits prevented

Source: Adapted from Dental Quality Alliance. "Quality Measurement in Dentistry: A Handbook." American Dental Association. 2012.

Qualitative Measures

While performance measures are vital to measuring the success of the PIP, they do not tell the full story of dental care that is delivered. States can encourage health plans to use focus groups, surveys, and interviews to collect *qualitative* insights from members and key staff at the health plan or provider level. Member input can illuminate underlying root causes of poor oral health care such as transportation difficulties, low oral health literacy, or misconceptions about appointment costs. Health plan and/or provider staff can also provide practical insights into barriers related to care delivery, such as challenges using an automated call system to make Spanish-language appointment reminders. Qualitative measures can serve as the secondary measures and/or be a supplement to the overall measurement set, providing key insight (e.g., pre- and post- intervention surveys of member experience; focus groups with caregivers to receive input on an oral health education tool; interviews with dental providers to identify opportunities to improve dental visit efficiency) that will aid PIP planning and implementation.

> **PIP TIP**
>
> Qualitative data are especially important for the PIP when the population is small. This can be, for example, because a rural area, or particular racial/ethnic group may not offer a large enough sample size to perform quantitative analyses.
>
> Health plans may benefit from technical assistance from EQROs or other entities around the development of focus groups, interviews, and surveys. They can also lean on their community advisory boards, oral health coalitions, and/or local community partners to help with developing qualitative questions, training staff members to conduct interviews, facilitating focus groups (as neutral mediators), and/or interpreting results.

Health plans may also stratify primary and secondary measures by key variables that are salient to the PIP topic or broader oral health goals of the state. For example, there may be disparities between African American and non-Hispanic, white populations in use of dental sealants; underutilization of preventive dental services among very young children; or a decline in dental service use among children in foster care. Health plans can also benefit from understanding how practice characteristics – such as type and size (e.g., small practice vs. integrated system) or diversity of workforce (e.g., dentist, dental hygienist, dental therapist) – and issues such as member satisfaction

correlate to such performance. For example, data might show that smaller practice sites have lower fluoride varnish rates, and larger practices may have poor member satisfaction scores.

States should provide stratification specifications to the health plans early in the PIP process so that health plans can acquire the data needed to do so (e.g., member race/ethnicity, age, Medicaid eligibility category, provider National Provider Identifier (NPI) number). States should be clear about these additional stratifications when creating contracts and setting pricing, because plans that are not already pursuing these analytic activities may need to build capacity to do so.

Feasibility of Measure Set

When making decisions about measure selection, states should consider the feasibility of health plans to acquire the needed data. Feasibility will depend on:

- Availability of required data;
- Time needed for staff to familiarize themselves with measure specifications;
- Data capacity to customize queries per measure specifications; and
- Alignment with other quality improvement programs or reporting requirements, which can reduce measurement burden/fatigue.

Health plans will need to benchmark their performance to ascertain their progress during the PIP as well as motivate improvement. States should choose measures that are already vetted by federal entities or dental authorities, such as CMS, the Dental Quality Alliance, the Agency for Healthcare Research Quality, the Health Resources and Services Administration, and the National Child and Adolescent Health Initiative. The National Quality Forum's environmental scan of oral health measures is especially useful, with descriptions of more than 200 oral health performance measures. If possible, states should provide these benchmarking reports to health plans directly. States might also encourage health plans to share best practices for data collection and reporting with each other.

This is a data measurement that allows the health plan to compare performance to that of an external entity or a standard (e.g., all-plan mean, National Committee for Quality Assurance national Medicaid average, CMS's Oral Health Initiative goal).

Customizing the *Select the Performance Measures* Section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

V. Select the Performance Measures

State Guidance: In this gray box, the state can provide the health plan with the PIP performance measures and/or guidance for selecting performance measures. The state can edit, add, or delete the specifications requested for each measure as well as the number of measures requested. The state may also want to complete some content on behalf of the health plan, such as the measure source, numerator/denominator specifications, benchmark, or goal.

List and define the primary and secondary measures that you will use to determine the impact of your PIP. For each measure, indicate the measure source, data specifications, measurement periods, benchmark, and goal.

Primary/Secondary Measure	
Measure Source (e.g., Dental Quality Alliance, Agency for Healthcare Research & Quality, health plan)	
Numerator Specification	
Denominator Specification	
Baseline Measurement Period Date	
Remeasurement Period Dates	
Benchmark	
Goal	

VI. Establish the Data Collection Plan

*In the **Establish the Data Collection Plan** section of the PIP template, the health plan describes the data infrastructure in place for the PIP.*

***Read this chapter to understand how to** support health plans through the development of a data collection protocol for the oral health PIP.*

Health plans need complete data and reliable processes for collecting, manipulating, and/or sharing data over the course of the PIP. The state should consider how its administrative resources, access to individual and aggregate health plan data, and relationships with relevant partners – such as electronic health record vendors and EQROs – can facilitate health plans' effective use of data for their quality improvement interventions. The state may consider hosting trainings or peer-learning collaboratives for health plans to learn and share their strategies. Health plans' data collection protocols should include the following:

- **Procedures for extracting data** in a timely manner
- **Procedures for validating data** to ensure reliability, particularly for new and/or qualitative data (e.g., provider interviews) that are not routinely used by the health plan
- **Training and resources for staff** around key terms, information systems, and data manipulations
- **Key data work flows**, to ensure that data are shared efficiently within the organization (e.g., health information technology and quality improvement staff) and outside (e.g., frontline providers, community health workers)
- **Regular maintenance of data sources** to ensure that data are protected and current

PIP TIP

EQROs are an excellent source of technical assistance to health plans for developing data collection protocols for an oral health PIP. They have experience working with health plans on issues of data quality, measurement, and reporting, as well as the knowledge and staff capacity to perform technical tasks, such as medical record review, on behalf of the health plans. A state may already be using an EQRO for regular data activities, such as audits of quality reports, and can call upon an EQRO specifically to provide structured and/or in-depth assistance to health plans during the oral health PIP planning and implementation process.

RELATED RESOURCES

- Inter-Rater Reliability Testing for Utilization Management Staff
- Multiple Tools Related to Data Collection and Planning

Customizing the *Establish a Data Collection Plan Section* of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

VI. Establish a Data Collection Plan	
State Guidance: **In this gray box, the state can share information to support health plans' development of a data collection plan. For example, the state might indicate that it is contracted with an EQRO to facilitate technical assistance around these activities.**	
For each measure identified in Section V, describe the following aspects of your data collection. *Add sections for additional measures as needed (fields for two primary measures and two secondary measures have been provided).*	
Primary Measure #1	
Organizational Data Source and Frequency of Collection (e.g., claims and quarterly)	
Staff Responsible for Data	

Collection (include multiple staff or departments as appropriate)	
Procedure for Data Analysis	

VII. Plan the Intervention

*In the **Plan the Intervention** section of the PIP template, the health plan describes key decisions involved in the identification of appropriate interventions and planning activities to support implementation.*

***Read this chapter to** consider how to support health plans through their intervention identification and planning activities.*

In this phase of the PIP, health plans identify the appropriate intervention(s) to advance their PIP aim. This can be done through the following steps:

1. Investigate the root causes of variation underlying the PIP topic
2. Identify available drivers of change that can advance the PIP aim
3. Choose the ideal intervention(s)
4. Determine the resources required for continuous quality improvement

The following are ways that states can support health plans through each of the above phases:[11]

Support for **investigating the root causes of variation underlying the PIP topic:**

- *Provide tools or training for effective barrier analysis*. Health plans should conduct meaningful assessments of their performance data, seek the input of key stakeholders, and use tools to identify the barriers to oral health care that must be addressed through the PIP. A fishbone diagram is one such tool that can help health plans identify the various causes and effects that underlie a particular phenomenon of care delivery (e.g., missed appointments). States can offer and/or encourage use of this tool (see Appendix A of the PIP template for a blank fishbone diagram); other helpful tools include Five Whys, process mapping, and failure modes and effect analysis.
- *Make recommendations for prioritizing barriers.* Analysis might reveal multiple barriers that are challenging care delivery, but not all will be feasible to address through the PIP. States can provide some guidance on which barriers (e.g., transportation, workforce inadequacy) to address, based on state goals or available resources (see Appendix B of the PIP template for a blank priority matrix tool to assist health plans with prioritization).

RELEVANT RESOURCES

- "Five Whys" Tool for Root Cause Analysis: simple problem-solving technique that helps to get to the root of a problem quickly? The "Five Why's" strategy involves drilling down any problem by asking: "Why?" or "What caused this problem?"
- Process Mapping: a visual representation – a picture or model – of the procedures and administrative processes involved in a flow of activities surrounding a patient.
- Failure Modes and Effects Analysis: a systematic, proactive method to identify where and how a process might fail, and to assess the relative impact of different failures in order to identify the parts of the process that are most in need of change.
- Failure Modes and Effects Analysis Tool

Support for **identifying available drivers of change that can advance the PIP aim:**

- *Guidance on developing driver diagrams*. Driver diagrams are useful for connecting identified root causes to actionable strategies that further the PIP aim. Providing an at-a-glance view of the overall PIP strategy, driver diagrams can be a helpful visual tool for quality improvement teams (see Appendix D of the PIP template for a blank driver diagram worksheet).

[11] See the *Plan the Intervention* chapter in *Medicaid Oral Health Performance Improvement Projects: A Template for Health Plans* for more information on intervention planning activities pursued by health plans.

RELEVANT RESOURCE

- Defining and Using Aims and Drivers for Improvement

Support for **choosing the ideal intervention(s):**

- *Options for interventions.* Choosing an intervention is one of the most difficult aspects of the PIP process for health plans. Health plans will want to implement interventions that are resource friendly as well as effective in bringing about the desired change. Although health plans can borrow from the approaches of other health plans, they must also ascertain what is appropriate to their particular organization, provider network, members, and local oral health priorities and needs. The state can consider how it might want to influence health plan decisions around intervention selection. A state, for example, may want to promote community-based (versus practice site–based) approaches to improving oral health care, or the state may require the incorporation of different types of providers – dental therapists, dental hygienists, community health workers, member navigators – in the intervention to support a new statewide workforce diversification policy. When possible, states should also indicate which interventions are evidence based and/or provide a database of best practices and successful strategies for health plans to use as a guide.

- *Decision support for intervention selection.* Multiple interventions may be appropriate to overcome identified barriers to the PIP aim, but not all will have the same resource intensity. A Strengths Weaknesses Opportunities Threats (SWOT) analysis (see Appendix C of the PIP template for a blank SWOT tool) can help health plans identify where their organizational resources are and which interventions best match them. States might consider sharing this tool – and related guidance – to assist health plans in this process.

RELEVANT RESOURCES

- Strategies to Increase Oral Health Care Access for Children in Medicaid: Lessons from Pioneering States
- Oral Health Interventions at a Glance

Customizing the *Plan the Intervention* section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

VII. Plan the Intervention

State Guidance: **In this gray box, the state can share any guidance for planning the PIP intervention and can provide the health plan with necessary tools, including those provided in the appendix of the PIP template (e.g., fishbone diagram, driver diagram).**

Provide the results of analyses you conducted to understand the drivers behind gaps in oral health utilization, quality, or timeliness related to your PIP aim. Indicate the methods you used to arrive at these conclusions (e.g., focus groups, surveys, fishbone/cause-and-effect diagrams). *Use the tools in Appendices A–C.*

Provide the rationale for choosing your PIP intervention(s). Include any analyses conducted that helped you arrive at your decision (e.g., Strengths, Weaknesses, Opportunities, and Threats).

Attach the driver diagram that guides your PIP strategy. Provide any related context below, as desired. *Use the worksheet in Appendix D to construct your driver diagram.*

Indicate below the measures you will use to assess progress of the intervention and correct course, as necessary. *Add rows for additional measures as needed.*

Intervention Tracking Measure	Data Source	Frequency of Collection	Staff Responsible	How This Will Inform Continuous Quality Improvement Strategy

VIII. Implement the Intervention and Improvement Strategies

*In the **Implement the Intervention and Improvement Strategies** section of the PIP template, the health plan describes intervention implementation activities, including cycles of continuous quality improvement.*

***Read this chapter to understand how to** support health plans through implementation of their quality improvement interventions.*

In this phase of the PIP, health plans have established their quality improvement teams, key timelines, and required resources, and are implementing their PIP interventions. The health plans are using Plan-Do-Study-Act (PDSA) cycles to facilitate a continuous quality improvement approach throughout implementation. This approach allows health plans to make incremental modifications to their interventions to ensure that any failures in the PIP are not attributable to poor implementation. Continuous quality improvement also facilitates the pilot testing of an intervention on a subsample before scaling to their entire population, as well as the testing of multiple interventions to identify the most effective strategy.

States can support health plans in these activities,[12] by providing trainings, tools, and/or peer-learning opportunities around quality improvement methodologies. Not all health plans may have experience with quality improvement, but the methods are key to ensuring a timely, effective, and resource-optimized intervention.

RELEVANT RESOURCES

- Plan-Do-Study-Act Cycles
- CMS Quality Improvement 101 and Quality Improvement 201 webinar series
- Institute for Healthcare Improvement Quality Improvement resources

Customizing the *Implement the Intervention and Improvement Strategies* Section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

VIII. Implement the Intervention and Improvement Strategies		
State Guidance: **In this gray box, the state can share guidance for implementing the intervention and provide the health plan with necessary tools, including those provided in the appendix of the PIP template (e.g., PDSA template).**		
Identify the staff involved in the implementation of the intervention(s) and their respective roles. Include any relevant staff/leadership champions.		
Indicate the timeline for implementation of the intervention. *Add rows for additional activities as needed.*		
Implementation Activity	**Time Period**	**Frequency of Recurrence**

[12] See the *Implement the Intervention and Improvement Strategies* chapter in *Medicaid Oral Health Performance Improvement Projects: A Template for Health Plans* for more information on intervention implementation activities pursued by health plans.

Report on the results of the Intervention Tracking measures and how these results are helping to assess the progress of the intervention and correct course, as needed. *Use the PDSA worksheet in Appendix E to help complete this section.*

Intervention Tracking Measure	Measurement Period	Result	Results and How They Are Informing Course Correction

IX. Analyze Data to Interpret PIP Results

*In the **Analyze Data to Interpret Results** section of the PIP Template, the health plan reports the results of each PIP quality measure to assess whether the PIP aim was met.*

***Read this chapter to understand how to** support health plans in their analysis of PIP results.*

The health plans report the primary and secondary measures of the PIP during regular phases of the PIP, which culminates in the final measurement at the end of the PIP period. The evaluation of the PIP involves assessing the change in the primary measure(s) during the PIP and the statistical significance of that change. Health plans are also expected to describe the types of changes seen in relationship to barriers faced, strategies used, and lessons learned over the course of intervention implementation.

Health plans may need help completing these data assessments.[13] States can share tools and types of analyses with health plans that do not require much rigorous analytic capacity and are conducive to quality improvement, such as the following:

- *Time series:* plots that display data in a time sequence
- *Run and control chart:* analyzing time-based changes in data within established upper and lower limits
- *Data dashboard:* arrangement of multiple graphs to identify relationships across them
- *Basic trend analyses:* calculations such as the degree of deviation from the mean, or the number of consecutively increasing or decreasing data points

RELEVANT RESOURCES

- Run and Control charts
- Analyzing Quality Improvement Data Using Time Series Charts (includes guidance on basic trend analyses)
- Managing Data for Performance Improvement (includes guidance on data dashboards)
- Institute for Healthcare Improvement's Improvement Tracker (useful for a variety of analyses)

The above tests can be done with a pen and paper or simple Excel features, and can be helpful for high-level interpretation of measure change; however, the PIP regulation requires health plans to report the statistical significance of changes in measure rates to identify "true" change as well. "True" change is not due to chance and is not in keeping with expected trends; it is the result of some intervention in the system. Health plans may require assistance to complete test of statistical significance. EQROs will be especially helpful in this regard, as data analytics are their key competency.

[13] Review the *Analyze Data to Interpret Results* chapter in *Medicaid Oral Health Performance Improvement Projects: A Template for Health Plans* for more information on data analytic and reporting activities pursued by health plans.

Customizing the *Analyze Data to Interpret PIP Results* Section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

IX. Analyze Data to Interpret PIP Results

State Guidance: **In this gray box, the state can share any instructions for filling out the template, or guidance for the health plan's analysis of the PIP data. The state can include any particular analyses – e.g., run charts – that it would like the health plan to perform. It can also provide guidance on what p-value to use when calculating statistical significance.**

Report the results of the PIP measures.

Primary/Secondary Measure

Measurement Period	***Measurement***	***Numerator***	***Denominator***	***Rate or Result***	***Benchmark***	***Goal***
	Baseline:					
	Remeasurement 1:					
	Remeasurement 2:					

Statistically Significant? (Yes/No)	**Test Used**	**p-value**	**Measure Periods Compared**

Interpret the rates for each measurement period. Discuss specific implementation barriers faced and strategies used during the time period that may have contributed to the observed results. Given these results, note how implementation may be improved during the next measurement period.

Measurement Period	***Measurement***	***Interpretation of Results***	***Barriers Faced and Strategies Used***	***Improvement Strategies for Next Measurement Period***
	Enter Rate at Baseline:			
	Enter Rate at Remeasurement 1:			
	Enter Rate at Remeasurement 2:			

X. Plan for Sustained Improvement

*In the **Plan for Sustained Improvement** section of the PIP Template, the health plan describes how it will continue the improvement process beyond the duration of the PIP, build capacity for continued oral health quality improvement, and disseminate results of the PIP.*

***Read this chapter to understand how to** (1) identify lessons learned from the oral health PIP; (2) support health plans' ongoing oral health quality improvement; and (3) facilitate dissemination of the PIP results*.

States can use health plans' PIP experiences – and health plan responses to this section of the PIP Template – to reflect on how the oral health PIP can be improved. States should consider how to sustain successful components of the oral health PIP and how future health plan efforts in broader oral health quality improvement may be supported. In reviewing health plan PIP performance, states can consider the following:

- Were the PIP goals reached? Was the expected rate of improvement a challenge to meet, or could the bar have been higher?
- Were the right performance measures selected? Did stratification of the measures by population demographics, member risk, settings of care, or other variables help with PIP execution or interpretation of results?
- Look at the PDSA cycles. What were common implementation barriers across health plans? Consider the following:
  - *Staffing:* leadership support, teamwork, skills
  - *Data:* quality, completeness, timeliness of collection and analysis
  - *Timeline:* time periods for measurement, duration of the PIP
  - *Intervention:* resources, materials, use of PDSA cycles to correct course
  - *Stakeholders*: member relations, provider cooperation, community partners
- What resources helped the health plans during implementation?
- What additional resources or assistance could have been provided to the health plans to improve outcomes of the PIP?
- How can the results of the PIP be sustained? What might be helpful for future efforts?

State Levers for Supporting Oral Health Quality Improvement

In considering the state role in future oral health PIPs and broader quality improvement, states can consider the following strategies:

Incentives

- Performance-based financial incentives (or penalties) for health plans, providers, and/or members
- Public reporting of performance data and PIP outcomes
- Modified contract requirements
- Value-based purchasing arrangements with health plans and/or providers

Data and Reporting

- Routine reporting of plan-specific and aggregate performance data to health plans and providers
- Data analytic support to facilitate customized use of data for quality improvement
- Linkage of data to key demographic (age, race/ethnicity, enrollment status) and delivery system (e.g., care setting, practice type/size, geography) characteristics

Capacity-Building/Training/Technical Assistance

- Compilation of best practices or evidence-based tools for oral health quality improvement
- Directory of effective oral health care interventions
- Clinical aides to facilitate evidence-based practice
- Provider supports to diversify the oral health workforce
- Cross-agency partnerships to support on-the-ground collaborations
- Stakeholder engagement with members, advocates, providers, and oral health coalitions

- Technical assistance and subject matter expertise through the EQROS or other vendors
- Learning collaboratives and other peer learning forums for health plans and/or providers

Communicate the Findings

Sharing project results – including less successful outcomes – are important to sustainability of the PIP effort. Communication will stimulate conversations on how to scale the learnings of the PIP, generate buy-in for future quality improvement programs, and promote health plans in the eyes of their members. States should consider what they want to require the health plans to disseminate. For example, the state might require each health plan to post its PIP results on its website or to conduct concerted meetings with its key stakeholders to discuss the PIP and plan for future quality improvement projects. States should also think through their own options for disseminating the PIP results:

- Public reporting of PIP results for each health plan;
- Discussion of PIP results with each health plan;
- Peer interaction among the health plans to facilitate sharing of lessons learned; and/or
- Private and public forums with relevant stakeholders to discuss PIP outcomes, lessons learned, and goals for future programs.

States can also support health plan communications efforts by providing

- PowerPoint or Excel templates for health plan presentations on their PIPs;
- Media toolkit to facilitate development of fact sheets, issue briefs, posters, or other communications tools; and/or
- Templates for outreach letters to relevant stakeholders (e.g., oral health coalitions, safety-net dental provider associations, local chapters of American Academy of Pediatric Dentistry).

RELATED RESOURCES

- Agency for Healthcare Research Quality Dissemination Planning Toolkit
- Blueprint for the Dissemination of Evidence-Based Practices in Health Care

Customizing the *Plan for Sustained Improvement* section of the PIP Template

States can use the information from this chapter to provide guidance to or modify instructions for health plans in *Medicaid Oral Health PIPs: A Template*; all content in the template is customizable. Instructions to guide states are in blue in the template excerpt below.

X. Plan for Sustained Improvement
State Guidance: **In this gray box, the state can share relevant information to support health plans' development of a plan for sustainability. For example, it may require health plans to provide answers to the questions below based on both short-term (e.g., six months) and long-term (e.g., five years) sustainability plans. Also, the state should share preferences for how the health plan disseminates the PIP results.**
How will you measure improvement beyond the duration of the PIP?
How will you sustain improvements observed through the PIP?
What aspects of this project would you replicate? What aspects would you replace or improve upon?

What aspects of the quality infrastructure established through this project will you build upon to advance oral health among your members?
What technical assistance or other support do you require to sustain the interventions of the PIP and/or to pursue broader oral health quality improvement?
How do you plan to disseminate the findings of the PIP?

GLOSSARY

Aim statement: A written, measurable, and time-sensitive statement of the accomplishments a team expects to make from its improvement efforts.

Benchmark: The attribute or achievement that serves as a standard for other organizations to emulate.

Champion: An individual in the organization who believes strongly in quality improvement and is willing to work with others to test, implement, and spread changes. The champion should have a good working relationship with colleagues and leadership and be interested in driving change in the system.

Claims (encounter) data: The electronic record of services provided to health plan enrollees. Encounter data provide the same type of information that is found on claim forms (e.g., UB-04 or CMS 1500), but not necessarily in the same format.

Continuous quality improvement: A cycle (structured trial) of a change during an improvement effort, to accelerate the adoption of proven and effective changes.

Denominator: Provides the general specifications of any clinical component that is the basis for inclusions and exclusions in the population to be considered in a measure; the number below the numerator, as in a fraction.

Disparity: A particular type of health difference that is closely linked with social or economic disadvantage.

Driver of change: The catalyst of a shift or transformation that can be leveraged in improvement efforts.

Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT): A comprehensive and preventive child health benefit for Medicaid enrollees under age 21 that includes periodic screening, vision, dental, and hearing services.

Encounter data (see *Claims Data*)

External quality review (EQR): The analysis and evaluation of aggregated information on quality, timeliness, and access to health services provided to Medicaid/CHIP enrollees by MCOs or their contractors.

External quality review organization (EQRO): An organization that meets the competence and independence requirements (federal) set forth in 42 C.F.R. §438.354, to perform an EQR and/or other EQR-related activities.

Fee-for-service: Payment method whereby physicians and other health care providers receive a fee for each service delivered, such as an office visit, test, procedure, or other health care interaction.

Generalizability: The ability for findings and conclusions from a study sample to be applied beyond the population from which the sample was drawn.

Focus group: A group of individuals assembled to participate in a guided discussion.

Health literacy: Individuals' ability to find, process, and comprehend the basic health information necessary to act on medical instructions and make decisions about their health.

Implementation: Putting plans or concepts into action; taking a change and making it a permanent part of a system. A change may be tested first and then implemented throughout the organization.

Inclusion criteria: Characteristics that prospective subjects must have if they are to be included in a study or represented in the calculation of a measure rate.

Indicator: A measure of change. A focused, reportable unit that will help a team monitor its progress toward achieving its aim.

Intervention: An action or interference designed to improve the health of a patient or change the conditions (e.g., system, administrative, policies) that have a negative direct or indirect impact on the well-being of the patient.

Measure (*see Indicator*)

Numerator: In reference to the larger population of members, the number of members in a study meeting the specifications of a clinical component in a measure.

Pay-for-performance: A payment model in which health plans and/or providers are rewarded for the value, quality, and/or outcomes – rather than volume – of health care services.

PDSA: The Plan-Do-Study-Act (PDSA) cycle, a key component of continuous quality improvement, outlines steps to test a change on a small scale by planning it, trying it, observing the results, and acting on what is learned.

Performance measure (or, performance data, quality measure, quality data): The specific representation of a process or outcome that is relevant to the assessment of performance; it is quantifiable and can be documented.

Pilot test: A small-scale trial of a new approach or process, designed to learn if the change results in improvement.

Protocol: A systematic way of conducting an activity to ensure reproducibility, or abidance to a policy.

Quality: The degree to which a health care organization increases the likelihood of desired health outcomes of its members through its structural and operational characteristics and through the provision of health services. These services must be consistent with current professional knowledge in at least one of the six domains of quality, as specified by the Institute of Medicine – efficiency, effectiveness, equity, patient centeredness, patient safety, and timeliness.

Quality improvement: Systematic and continuous actions that lead to measurable improvement.

Registry: A list or database of records that contains individual patient information. Provides clinically useful and timely information, gives reminders and feedback to providers and patients, identifies relevant patient subgroups, and facilitates individual patient care planning.

Reliability: The degree to which a tool or system produces something reproducible.

Sampling: The process of measuring a sample (e.g., every sixth patient for one week; the next eight patients) to help understand how a system is performing.

Social determinants of health: Circumstances in which people are born, grow up, live, work, and age that can influence health, as well as the systems put in place to deal with illness.

Spread: The intentional and methodical expansion of particular components of health care delivery, such as a quality improvement intervention or system change.

Stakeholder (health care): Individuals/organizations who can influence, have a vested interest in, or can be affected by the health care system.

Statistical significance: Indication that a difference between rates or phenomena is likely due to elements of change in the system and not due to random chance.

Stratification: The process or result of separating a sample into subsamples according to specified criteria such as age or occupation.

Survey: A means (e.g., questionnaire, diary, interview script, group of items) to collect individuals' input.

Sustainability: The likelihood of an improvement persisting over time, and/or the capacity to support long-term improvement.

Sustained health care improvement: Changes in the fundamental processes of health care delivery demonstrated through repeated measurements over comparable time periods.

Target population: A group of individuals selected from the general population to be included in an improvement effort.

Validation: The review of information, data, and procedures to determine the extent to which they are accurate, reliable, free from bias, and in accord with standards for data collection and analysis.

Validity: The degree to which a tool measures what it is intended to measure.

Variable: A characteristic or condition that changes or has different values depending on the context.

Definitions have been adapted from several sources, including the Institute for Healthcare Improvement, the Centers for Disease Control, Health Services and Research Administration, and the Agency for Healthcare Research Quality, among other organizations.

Percentage of children, age 1–20, enrolled for at least 90 continuous days, who received any preventive dental service, FFY 2013

Source: CMS-416 Reports, Line 1b, 12b. Data reflect updates as of 10/22/14.