



Guidance for Calculating the Dental Sealant Measure in the Child Core Set

Background

Oral health access and utilization is a primary focus of Medicaid and CHIP quality improvement efforts and progress in this area is reported by the Department of Health and Human Services annually. The Core Set of Children's Health Care Quality Measures for Medicaid and CHIP (Child Core Set) provides a national- and state-level snapshot of the quality of oral health care provided to children enrolled in Medicaid and CHIP.¹

In 2014, CMS conducted its annual review of the Child Core Set, and added the "Dental Sealants for 6–9 Year Old Children at Elevated Caries Risk" measure (NQF #2508) to the 2015 Child Core Set. The dental sealant measure was selected because it assesses the quality and appropriateness of oral health care and is linked to improved outcomes.² The measure is closely tied to a goal of the CMS oral health initiative, to increase the rate of children ages 6 to 9 enrolled in Medicaid who receive a dental sealant on a permanent molar tooth by 10 percentage points over a five-year period.³

Successful reporting of the new dental sealant measure will help CMS and states continue to drive quality improvement efforts and monitor progress in oral health care. This TA brief was developed to help states calculate and report the dental sealant measure as part of the Child Core Set.⁴

¹ See <https://www.medicaid.gov/medicaid/quality-of-care/downloads/performance-measurement/2017-child-chart-pack.pdf> for the Quality of Care for Children in Medicaid and CHIP: Findings from the 2016 Child Core Set.

² In addition, the "Dental Treatment Services" measure was retired. See <http://www.medicaid.gov/federal-policy-guidance/downloads/cib-12-30-2014.pdf> for CMCS Informational Bulletin "2015 Updates to the Child and Adult Core Health Care Quality Measurement Sets."

³ More information about the CMS Oral Health Initiative is available at <https://www.medicaid.gov/medicaid/benefits/dental/index.html>.

⁴ The Form CMS-416 (Annual EPSDT Report) also collects information on receipt of dental sealants by children in Medicaid (line 12d). The

About this Brief

This technical assistance (TA) brief provides guidance to states for calculating the Child Core Set measure, "Dental Sealants for 6–9 Year Old Children at Elevated Caries Risk." The brief outlines the data requirements and steps for calculating the measure. A supplemental guide to data elements and sample SAS code are available on request to assist states in programming the measure. Building states' capacity to report the dental sealant measure is a high priority for the Centers for Medicare & Medicaid Services (CMS) as part of its efforts to improve access to and quality of oral health care for children in Medicaid and the Children's Health Insurance Program (CHIP).

Overview of the Dental Sealant Measure in the Child Core Set

The dental sealant measure is defined as the percentage of enrolled children ages 6–9 at elevated risk of dental caries (i.e., "moderate" or "high") who received a sealant on a permanent first molar tooth within the measurement year. The measure steward is the American Dental Association (ADA), on behalf of the Dental Quality Alliance (DQA). This measure targets children at elevated caries risk for purposes of tracking Medicaid program performance. However, this does not imply that other children should not receive sealants.

Child Core Set measure differs from the Form CMS-416 measure in several ways: (1) the Core Set measure is reported for children ages 6 to 9 only, while the Form CMS-416 measure is reported for children ages 6 to 9 and 10 to 14; (2) the Core Set measure includes children at elevated risk of dental caries, while the Form CMS-416 measure does not require assessment of risk for dental caries; (3) the Core Set measure has a continuous enrollment criterion of 180 days, while the Form CMS-416 measure has a continuous enrollment criterion of 90 days; (4) the Core Set measure counts sealants on first permanent molars only, while the Form CMS-416 measure counts sealants on all permanent molars; and (5) the measurement period for the Child Core Set measure is the calendar year, while the Form CMS-416 measure is calculated for the federal fiscal year.

For FFY 2018 reporting, the measure should be calculated using Medicaid administrative data from calendar year (CY) 2017 (the measurement year), as well as claims data from up to three years prior to the measurement year when available, to identify children at elevated risk for dental caries.

Exhibit 1 lists the data elements used to calculate the denominator and numerator for the measure.

Exhibit 1. Data Elements Used to Calculate the Dental Sealant Measure

Enrollee-Level Data Elements

- ✓ Enrollee ID
- ✓ Date of Birth
- ✓ Enrollment Start and End Dates

Claims-Based Data Elements

- ✓ Enrollee ID
- ✓ Service Date of Claim
- ✓ Current Dental Terminology (CDT) Code⁵
- ✓ Health Care Provider Taxonomy Codes (such as those maintained by the National Uniform Claim Committee [NUCC])
- ✓ Tooth Number Code

Step-by-step guide to calculating the Dental Sealant Measure

Calculating the Denominator

The denominator for the measure is defined as the unduplicated number of enrolled children ages 6 to 9 years at elevated caries risk (i.e., “moderate” or “high” risk). The calculation of the denominator involves selecting Medicaid enrollees who meet criteria based on age, continuous enrollment, and elevated caries risk. Children who qualify for Early and Periodic, Screening, Diagnostic, and Treatment (EPSDT) benefits should be included, regardless of whether they are enrolled in a managed care plan or receive care on a fee-for-service basis (children who do not qualify for EPSDT benefits should be excluded). States should include paid, pending, suspended, and denied claims

⁵ A crosswalk of CPT Codes to CDT Codes is available at <https://www.medicaid.gov/medicaid/benefits/downloads/cpt-to-cdt-crosswalk.pdf>.

⁶ In some states, rates are calculated at the health plan level. States should create a state-level rate by combining rates across multiple reporting units. For additional guidance on calculating state-level rates,

with a date of service in the measurement year (CY 2017) or up to three years prior to the measurement year.

Step 1: Age

Calculate the age for each enrollee based on the end date of the measurement year and the enrollee’s date of birth. For FFY 2018, include enrollees in the denominator if they are ages 6 to 9 years as of December 31, 2017. For example, if an enrollee is 9 years and 360 days on December 31, 2017, he or she would be included in the denominator for FFY 2018 reporting. If the date of birth for an enrollee is missing, do not include the enrollee in the measure calculation.

Step 2: Continuous Enrollment

To be eligible for the measure, enrollees must be continuously enrolled for at least 180 days (or six months for programs that determine eligibility monthly), with no gap in coverage during this period. When reporting at the Medicaid program level, enrollees should be assessed for continuous enrollment in “any plan.” An enrollee who switched health plans (or who moved between fee-for-service and managed care) during the measurement period is still considered continuously enrolled as long as there is no gap in coverage during the 180-day continuous enrollment period.⁶ If the individual has multiple enrollment spells, use the longest enrollment spell to assess continuous enrollment eligibility.

Step 3: Elevated Risk

According to the ADA, history of caries (or tooth decay) is an important predictor of risk for future disease. The measure assesses whether children positively identified as being at elevated risk received recommended preventive services. Enrollees should be considered at elevated risk if they meet any of the following criteria:

- A risk assessment with a finding of ‘moderate’ or ‘high’ risk during the measurement year (CDT Code = D0602 or D0603), OR
- Documentation of CDT codes for restorative dental services (indicating elevated risk) such as caries, crowns, and root canals during the measurement year,⁷ OR

refer to the TA Brief, “Developing State-Level Rates Using Data from Multiple Sources,” available at <https://www.medicaid.gov/medicaid/quality-of-care/downloads/state-level-rates-brief.pdf>.

⁷ The CDT codes for identifying restorative dental services are listed in the technical specifications.

- Documentation of CDT codes for elevated risk in any of the three years prior to the measurement year. The three year “look-back” period is intended to positively confirm a history of elevated risk, but is not required for measure calculation. To be included in the measure calculation, a child is not required to be enrolled in Medicaid during the prior three years.

Calculating the Numerator

The numerator is defined as the unduplicated number of enrolled children ages 6 through 9 years at elevated risk (i.e., “moderate” or “high”) who received a sealant on a permanent first molar tooth as a dental service. The calculation of the numerator involves identifying enrollees who received a sealant in the measurement year, determining whether the sealant was received as a dental service, and confirming the tooth to which the sealant was applied. All enrollees in the numerator must also be included in the denominator and meet the denominator criteria mentioned earlier.

Step 4: Receipt of a Sealant as a Dental Service

Enrollees must have received a dental sealant as a dental service in the measurement year in order to be counted in the numerator. Sealants are identified in Medicaid claims data by CDT code D1351. The numerator reflects the number of children receiving a sealant in the measurement year, and not the number who ever received a sealant.

Dental services can be identified using various methods, similar to methods used to identify dental services for the CMS Form 416:

- Stand-alone dental plans that reimburse only for services provided by or under the supervision of a dentist can consider all their claims a dental service.
- When available, NUCC-maintained Health Care Provider Taxonomy codes can be used to determine whether the sealant was received as a dental service.⁸
- Programs that do not use NUCC codes can use valid mapping to identify providers whose services would be categorized as dental services.⁹

⁸ More information on the Health Care Provider Taxonomy Codes is available at <https://www.cms.gov/medicare/provider-enrollment-and-certification/medicareprovidersuperroll/taxonomy.html>. A list of codes specific to the Dental Sealant measure can be found in the Child Core Set technical specifications or sample SAS code.

Step 5: Tooth Number Code

For enrollees who meet the above criteria for receiving a sealant as a dental service, the final step is to confirm that the sealant was received on a permanent first molar (Tooth Number Code equals 3, 14, 19 or 30).¹⁰

Calculating the Rate

Finally, the rate is calculated based on the unduplicated number of enrollees in the numerator and denominator (defined as numerator/denominator *100). The rate should be rounded to one decimal. When reporting the rate, states should note any deviations from the measure specifications (such as measurement year, data source), as well as any eligible populations excluded from the measure.

For Further Information

For technical assistance related to calculating and reporting the Child Core Set measures, contact the TA mailbox at MACQualityTA@cms.hhs.gov.

Several resources are available to help states calculate the dental sealant measure:

- The technical specifications for the Dental Sealant measure are in the FFY 2018 Child Core Set Resource Manual, available at <https://www.medicare.gov/license-agreement.html?file=%2Fmedicaid%2Fquality-of-care%2Fdownloads%2Fmedicaid-and-chip-child-core-set-manual.pdf>.
- The DQA User Guide is available at http://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA_2018_Pediatric_%20Measures_User_Guide.pdf?la=en.
- A Guide to Data Elements and sample SAS code are available on request from the TA mailbox at MACQualityTA@cms.hhs.gov. The SAS code can be customized to the state’s Medicaid administrative data system, based on the guide to data elements.

⁹ For more information on categorizing dental services, refer to the DQA User Guide, available at http://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA_2018_Pediatric_%20Measures_User_Guide.pdf?la=en.

¹⁰ The tooth number codes are based on the Universal Numbering System.