

**\*\*Please read the DQA Measures User Guide prior to implementing this measure.\*\***

## DQA Measure Technical Specifications: Administrative Claims-Based Measures Treatment Services, Dental Services

**Description:** Percentage of enrolled children who received a treatment service within the reporting year  
**Numerator:** Unduplicated number of children who received at least one treatment service as a dental service  
**Denominator:** Unduplicated number of all enrolled children  
**Rate:** NUM/DEN

**Rationale:** Dental caries is the most common chronic disease in children in the United States (1). For 2015–2016, prevalence of total caries (untreated and treated) was 45.8% and untreated caries was 13.0% among youth aged 2–19 years. (2) In 2014, 52% of all children and 60% of poor children (FPL<100%) did not have a dental visit during the year (3). Identifying caries early is important to reverse the disease process, prevent progression of caries, and reduce incidence of future lesions. If left untreated, tooth decay can negatively affect a child's physical and social well-being and school performance.

- (1) Centers for Disease Control and Prevention. Hygiene-related diseases: dental caries. Available at: [http://www.cdc.gov/healthywater/hygiene/disease/dental\\_caries.html](http://www.cdc.gov/healthywater/hygiene/disease/dental_caries.html). Accessed July 28, 2015.
- (2) Fleming E, Afful J. Prevalence of total and untreated dental caries among youth: United States, 2015–2016. NCHS Data Brief, no 307. Hyattsville, MD: National Center for Health Statistics. 2018.
- (3) Nasseh K, Vujicic M. Dental care utilization steady among working-age adults and children, up slightly among the elderly. Health Policy Institute Research Brief. American Dental Association. October 2016. Available from: [http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief\\_1016\\_1.pdf](http://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1016_1.pdf).

**AHRQ Domain:** Use of Services<sup>1</sup>

**IOM Aim:** Equity

**Level of Aggregation:** Health Plan/Program

**Improvement Noted As:** This is a related health care delivery measure that should be interpreted in the context of other performance measures. Because specific services are not delineated for this measure, higher or lower rates are not necessarily indicative of better or worse performance.

**Data Required:** Administrative enrollment and claims data; single year. When using claims data to determine service receipt, include both paid and unpaid claims (including pending, suspended, and denied claims).

**Measure purpose:** This measure assesses utilization of a broad range of treatment services that include, but are not limited to, restorations, endodontic procedures, periodontal procedures, and extractions. Diagnostic and preventive services (such as fluoride applications, sealants, and cleanings) are not included.

Examples of questions that can be answered through this measure at each level of aggregation:

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<sup>1</sup> **Use of Services (Related Healthcare Delivery Measure):** "Use of services is the provision of a service to, on behalf of, or by a group of persons identified by enrollment in a health plan or through use of clinical services. Use of service measures can assess encounters, tests, or interventions that are not supported by evidence for the appropriateness of the service for the specified individuals." National Quality Measures Clearinghouse. Available at: <http://www.qualitymeasures.ahrq.gov/about/domain-definitions.aspx>. Accessed August 10, 2015.

1. What is the utilization of dental treatment services for children?
2. Does the use of dental treatment services vary by any of the stratification variables?
3. Are there disparities in the use of treatment services among different groups based on the stratification variables?
4. Over time, does the percentage of children who receive treatment services stay stable, increase or decrease?

**Applicable Stratification Variables (Optional: Contact Program Official to determine reporting requirement):**

1. Age (e.g. <1; 1-2; 3-5; 6-7; 8-9; 10-11; 12-14; 15-18; 19-20)
2. Payer Type (e.g., Medicaid; CHIP; private commercial benefit programs)
3. Program/Plan Type (e.g., traditional FFS; PPO; prepaid dental/DHMO)
4. Geographic Location (e.g., rural; suburban; urban)
5. Race
6. Ethnicity
7. Socioeconomic Status (e.g., premium or income category)

**Treatment Services Calculation**

1. Check if the enrollee meets age criterion<sup>2</sup> at the last day of the reporting year:<sup>3</sup>
  - a. If age criterion is met, then proceed to next step.
  - b. If age criterion is not met or there are missing or invalid field codes (e.g., date of birth), then STOP processing. This enrollee does not get counted in the denominator.
2. Check if subject is continuously enrolled for at least 180 days during the reporting year:<sup>4</sup>
  - a. If subject meets continuous enrollment criterion, then include in **denominator**, proceed to next step.
  - b. If subject does not meet enrollment criterion, then STOP processing. This enrollee does not get counted in the denominator.

**YOU NOW HAVE THE DENOMINATOR (DEN) COUNT: All enrollees who meet age and enrollment criteria**

3. Check if subject received a treatment service as a dental service during the reporting year:
  - a. If [CDT CODE] = D2000–D9999, AND
  - b. If [RENDERING PROVIDER TAXONOMY] code = any of the NUCC maintained Provider Taxonomy Codes in Table 1 below, then include in **numerator**; proceed to next step.<sup>5</sup>

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<sup>2</sup> **Age:** Medicaid/CHIP programs use under age 21 (< 21); Exchange quality reporting use under age 19 (<19); other programs check with program officials. The age criterion should be reported with the measure score.

<sup>3</sup> **Medicaid/CHIP programs should exclude those individuals who do not qualify for dental benefits.** The exclusion criteria should be reported along with the number and percentage of members excluded.

<sup>4</sup> **Enrollment in "same" plan vs. "any" plan:** At the **state** program level (e.g., Medicaid/CHIP) a criterion of "**any**" plan applies versus at the **health plan** (e.g., MCO) level a criterion of "**same**" plan applies. The criterion used should be reported with the measure score. While this prevents direct aggregation of results from plan to program, each entity is given due credit for the population it serves. Thus, states with multiple MCOs should not merely "add up" the plan level scores but should calculate the state score from their database to allow inclusion of individuals who may be continuously enrolled but might have switched plans in the interim.

<sup>5</sup> **Identifying "dental" services:** Programs and plans that do not use standard NUCC maintained provider taxonomy codes should use a valid mapping to identify providers whose services would be categorized as "dental" services. Stand-alone dental plans that reimburse **ONLY** for services rendered by or under the supervision of the dentist can consider all claims as "dental" services.

- c. If both a AND b are not met, then the service was not provided or was not provided as a “dental service”; STOP processing. This enrollee is already included in the denominator but will not be included in the numerator.

**Note:** In this step, all **claims** with missing or invalid CDT CODE, missing or invalid NUCC maintained Provider Taxonomy Codes, or NUCC maintained Provider Taxonomy Codes that do not appear in Table 1 should not be included in the numerator.

**YOU NOW HAVE NUMERATOR (NUM) COUNT: Enrollees who received a treatment service**

- 4. Report
  - a. Unduplicated count of enrollees in numerator
  - b. Unduplicated count of enrollees in denominator
  - c. Measure rate (NUM/DEN)

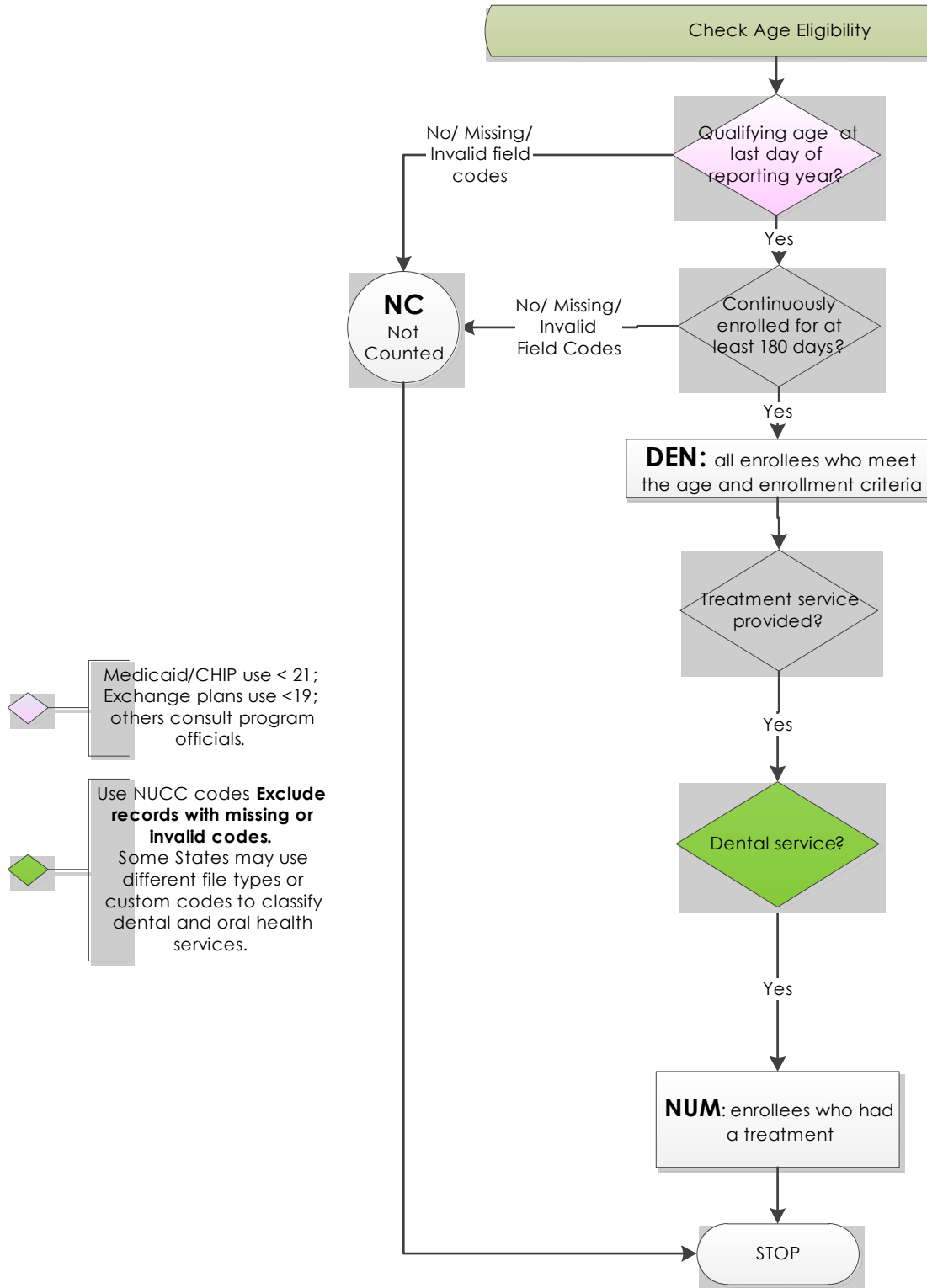
**Table 1: NUCC maintained Provider Taxonomy Codes classified as “Dental Service”\***

|            |            |             |            |            |
|------------|------------|-------------|------------|------------|
| 122300000X | 1223P0106X | 1223X0008X  | 125Q00000X | 126800000X |
| 1223D0001X | 1223P0221X | 1223X0400X  | 261QF0400X | 261QD0000X |
| 1223D0004X | 1223P0300X | 124Q00000X+ | 261QR1300X | 204E00000X |
| 1223E0200X | 1223P0700X | 125J00000X  | 1223X2210X | 261QS0112X |
| 1223G0001X | 1223S0112X | 125K00000X  | 122400000X |            |

\*Services provided by County Health Department dental clinics may also be included as “dental” services.

+Only dental hygienists who provide services under the supervision of a dentist should be classified as “dental” services. Services provided by independently practicing dental hygienists should be classified as “oral health” services and are not applicable for this measure.

\*\*\* Note: Reliability of the measure score depends on the quality of the data that are used to calculate the measure. The percentages of missing and invalid data for these data elements must be investigated prior to measurement. Data elements with high rates of missing or invalid data will adversely affect the subsequent counts that are recorded. For example, records with missing or invalid CDT CODE may be counted in the denominator but not in the numerator. These records are assumed to not have had a qualifying service. In this case, a low quality data set will result in a measure score that will not be reliable.\*\*\*



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