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

DQA Measure Technical Specifications: Administrative Claims-Based Measures

Utilization of Services, Dental Services

Description: Percentage of children under age 21 who received at least one dental service within the reporting year
Numerator: Unduplicated number of children who received at least one dental service
Denominator: Unduplicated number of children under age 21
Rate: NUM/DEN

Rationale: Dental caries is one of the most common chronic diseases 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). Identifying caries early is important to reverse the disease process, prevent progression of caries, and reduce incidence of future lesions. In 2014, 52% of all children and 60% of poor children (FPL<100%) did not have a dental visit during the year (3). This measure allows assessment of whether a child received any dental services during the year and, therefore, also measures access to oral health care. The Institute of Medicine identified improving access to oral health care as a "critical and necessary first step to improving oral health outcomes and reducing disparities (4)."

(1)   Centers for Disease Control and Prevention. Oral Health Conditions: Cavities (Tooth Decay). Available at: https://www.cdc.gov/oralhealth/conditions/index.html. Accessed August 29, 2022.
(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: https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/resources/research/hpi/hpibrief_1016_1.pdf. Accessed August 29, 2022.
(4)   Institute of Medicine and National Research Council. Improving access to oral health care for vulnerable and underserved populations. Washington, D.C.: National Academies Press; 2011.

National Quality Forum Domain: Process[1]

Institute of Medicine Aim: Equity

National Quality Strategy Priority: Health and Wellbeing

Level of Aggregation: Health Plan/Program

Improvement Noted As: In general, a higher score indicates better performance. Contextual information relating to the overall health status of the population is also useful in interpreting measure scores. The measure can also be very useful longitudinally to monitor change over time for a particular program or plan.

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).

---

[1] **Process (measure type):** "A healthcare service provided to, or on behalf of, a patient. This may include, but is not limited to, measures that may address adherence to recommendations for clinical practice based on evidence or consensus." National Quality Forum. "NQF Glossary." Available at: http://www.qualityforum.org/Measuring_Performance/Measuring_Performance.aspx. Accessed August 29, 2022.

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

1. What percentage of children received at least one dental service during the reporting period?

2. Over time, does the percentage of children who receive at least one dental service stay stable, increase, or decrease?

Applicable Stratification Variables

1. Age: <1; 1-2; 3-5; 6-7; 8-9; 10-11; 12-14; 15-18; 19-20

Utilization of Services Calculation

1. Check if the subject meets age criterion[2] at the last day of the reporting year:[3]

    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 subject does not get counted in the denominator.

2. Check if subject is continuously enrolled for at least 180 days during the reporting year:[4]

    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 subject does not get counted in the denominator.

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

3. Check if subject received any dental service during the reporting year:
    a. If [CDT CODE] = D0100 – D9999, AND
    b. If [RENDERING PROVIDER TAXONOMY] code = any of the NUCC maintained Provider Taxonomy Codes in Table 1 below, then include in numerator;[5] STOP processing.
    c. If both a AND b are not met, then service was not provided as a "dental service"; STOP processing. This subject 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: Subjects who received a dental service

---

[2] **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.

[3] **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.

[4] **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.

[5] **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.

4. Report
    a. Unduplicated number of subjects in numerator
    b. Unduplicated number of subjects in denominator
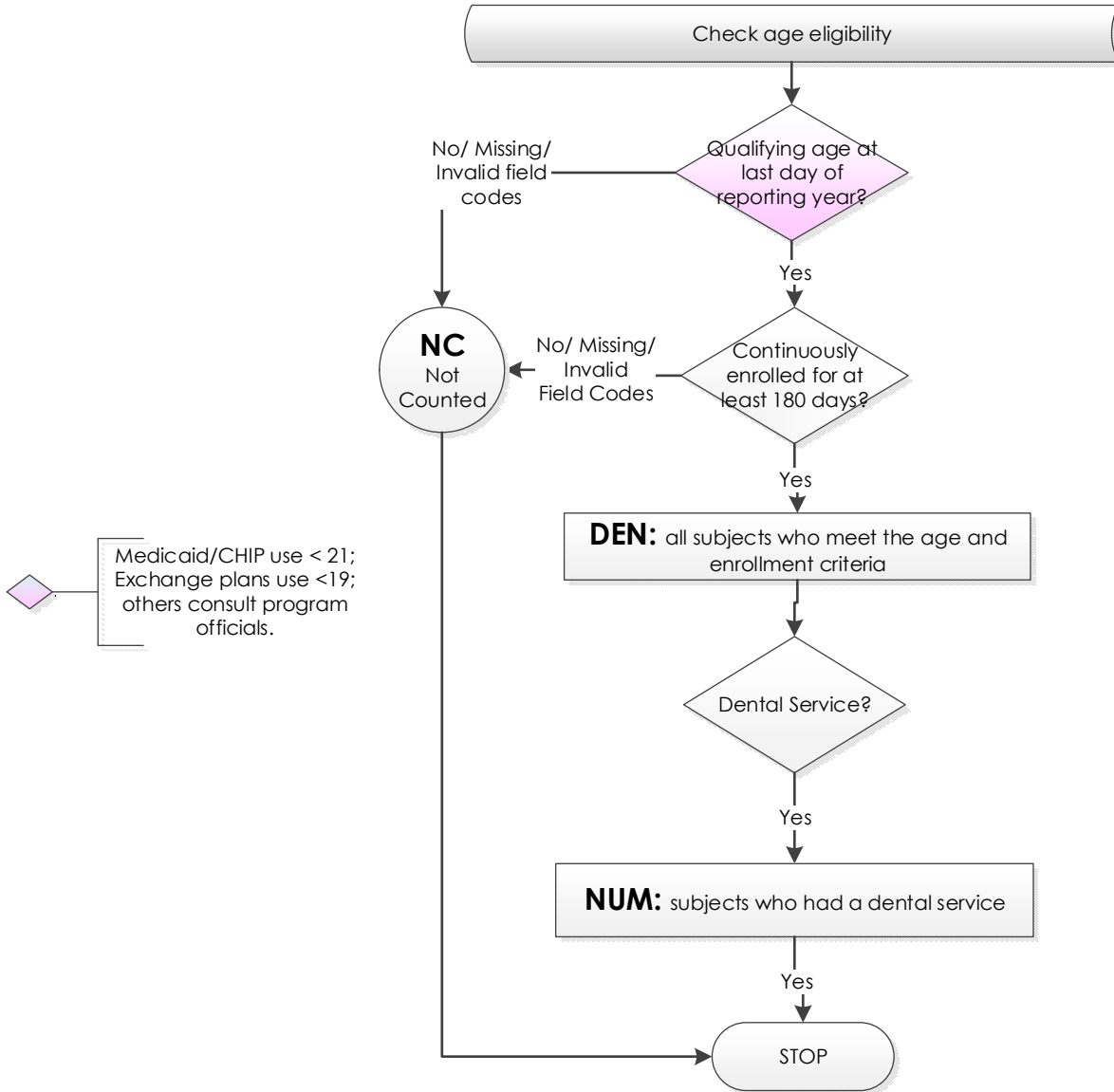   c. Measure rate (NUM/DEN)
    d. Rate stratified by age

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 low measure score and will not be reliable.***

Check age eligibility

Qualifying age at last day of reporting year?

No/ Missing/ Invalid field codes

Yes

NC Not Counted

No/ Missing/ Invalid Field Codes

Continuously enrolled for at least 180 days?

Yes

DEN: all subjects who meet the age and enrollment criteria

Medicaid/CHIP use < 21; Exchange plans use <19; others consult program officials.

Dental Service?

Yes

NUM: subjects who had a dental service

Yes

STOP