

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

DQA Measure Technical Specifications: Administrative Claims-Based Measures Utilization of Services, Dental or Oral Health Services

"Dental" OR "Oral Health" Services

Description: Percentage of all enrolled children under age 21 who received at least one dental OR oral health service within the reporting year

Numerator: Unduplicated number of children who received at least one dental OR oral health service

Denominator: Unduplicated number of all enrolled children under age 21

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). 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)."

Rationale for "Dental or Oral Health" Services Specification:

Apart from routine quality reporting, researchers and policy makers may wish to seek additional information regarding whether certain services were provided to a population. In such cases a "dental OR oral health" specification of the measure may be applicable. The "dental OR oral health" measure is **NOT** a sum of the "dental" and "oral health" Utilization of Services measures but represents the unduplicated count of children who received a dental or oral health service. The DQA Measures User Guide provides additional information on categorization of "dental" and "oral health" services.

Note: Not all state Medicaid programs reimburse for "oral health" services up to age 21. Age stratifications may be used when interpreting this measure.

- (1) Centers for Disease Control and Prevention. Hygiene-related diseases: dental caries. Updated September 22, 2016 Available at: http://www.cdc.gov/healthywater/hygiene/disease/dental_caries.html. Accessed April 2nd, 2019.
- (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, Vujcic 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.
- (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.

AHRQ Domain: Use of Services¹

Institute of Medicine Aim: Equity

National Quality Strategy Priority: Health and Wellbeing

Level of Aggregation: Health Plan/Program

Improvement Noted As: This measure should be interpreted in conjunction with the DQA measures: (1) Utilization of Services, Dental Services (NQF#2511) and (2) Utilization of Services, Oral Health Services. In general, a higher percentage of children who receive a dental or oral health service during the reporting year 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).

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

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

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)

¹ **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: <https://www.ahrq.gov/gam/summaries/domain-definitions/index.html>. Accessed April 23, 2019.

Utilization of Services (Dental or Oral Health Services) Calculation

1. Check if the enrollee meets age criterion² 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 enrollee 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 enrollee does not get counted in the denominator.

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

3. Check if subject received any **dental or oral health** service during the reporting year:
 - a. If [SERVICE CODE] = CDT D0100 – D9999;⁵ AND
 - b. If [RENDERING PROVIDER TAXONOMY] code is *any* valid NUCC maintained Provider Taxonomy Code,⁶ then include in **numerator**; STOP processing.
 - c. If both a AND b are not met, then the service was not a “dental or oral health” 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 SERVICE CODE or with missing or invalid NUCC maintained Provider Taxonomy Codes should be excluded.

YOU NOW HAVE NUMERATOR (NUM) COUNT: Enrollees who received a dental or oral health service

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

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.

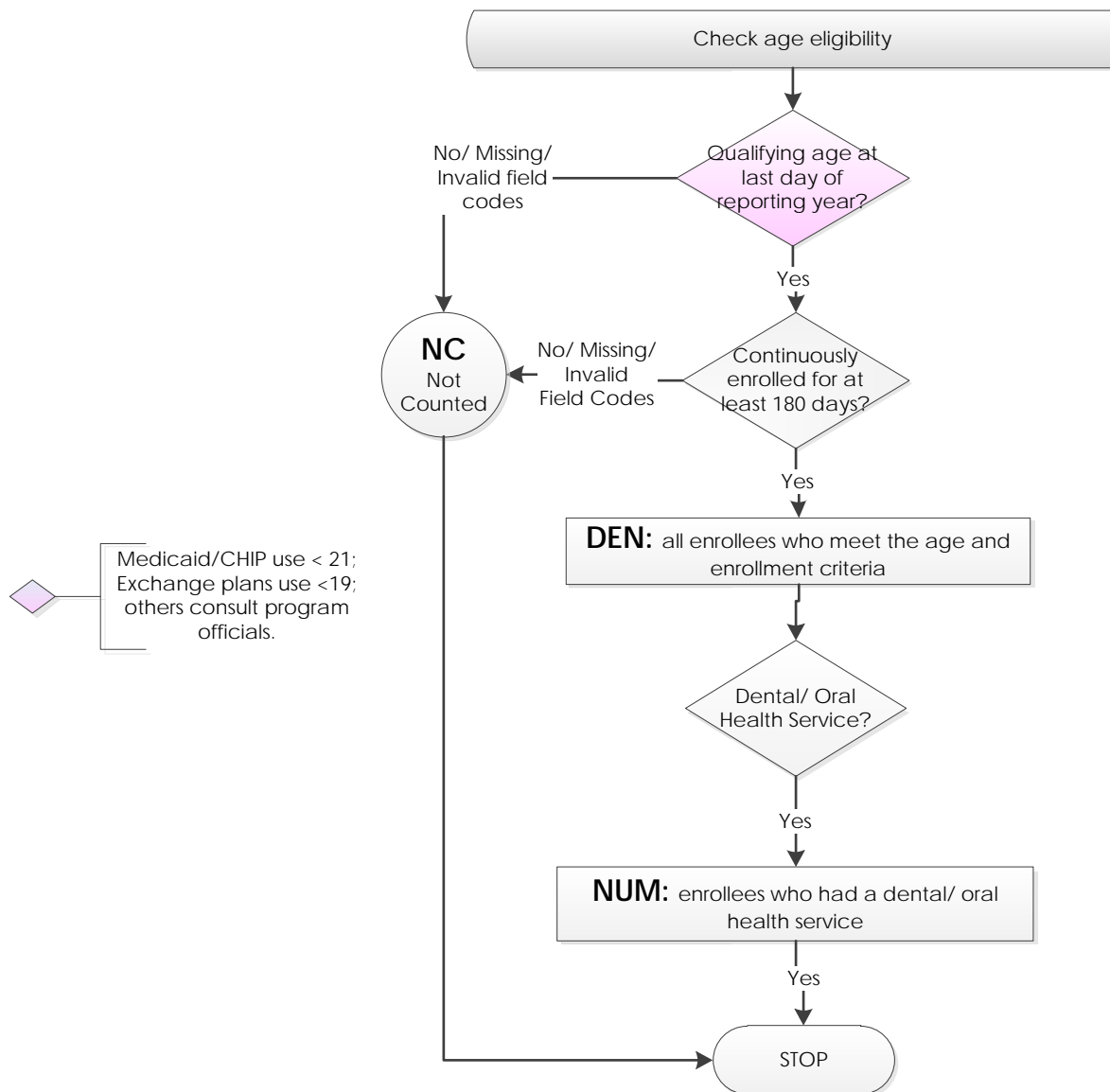
³ **Medicaid/CHIP programs should exclude those individuals who do not qualify for dental benefits.** The exclusion criteria should be reported along with the number and percentage of members excluded.

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 **Services provided by medical providers:** In some instances, CPT or other codes are used for reimbursement of oral health services (e.g., medical primary care providers providing oral evaluation, risk assessment, anticipatory guidance or fluoride varnish). Details available at [<AAP Table>](#). For such states these additional codes must be considered.

⁶ **Identifying “dental” or “oral health” 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” or “oral health” services.

*** 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 SERVICE 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.***



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