

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

DQA Measure Technical Specifications: Administrative Claims-Based Measures

Prevention: Topical Fluoride for Children at Elevated Caries Risk, Oral Health Services

"Oral Health" Services

Description: Percentage of children aged 1–21 years who are at "elevated" risk (i.e. "moderate" or "high") who received at least 2 topical fluoride applications as oral health services within the reporting year

Numerator: Unduplicated number of children at "elevated" risk (i.e. "moderate" or "high") who received at least 2 topical fluoride applications as oral health services

Denominator: Unduplicated number of children aged 1–21 years at "elevated" risk (i.e. "moderate" or "high")

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). Evidence-based Clinical Recommendations suggest that topical fluoride should be applied at least every three to six months in children at elevated risk for caries (4).

Rationale for "Oral Health" Services Specification:

Apart from routine quality reporting, researchers and policy makers may wish to seek additional information regarding services provided by "non-dental" providers, such as medical primary care providers. 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, 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.
- (4) Weyant RJ, Tracy SL, Anselmo TT, Beltrán-Aguilar ED, et al; American Dental Association Council on Scientific Affairs Expert Panel on Topical Fluoride Caries Preventive Agents. Topical fluoride for caries prevention: executive summary of the updated clinical recommendations and supporting systematic review. J Am Dent Assoc. 2013 Nov;144(11):1279-91.

National Quality Measures Clearinghouse: Process¹

Institute of Medicine Aim: Equity, Effectiveness

¹ **Process (measure type):** "A process of care is a health care-related activity performed for, on behalf of, or by a patient. Process measures are supported by evidence that the clinical process—that is the focus of the measure—has led to improved outcomes. These measures are generally calculated using patients eligible for a particular service in the denominator, and the patients who either do or do not receive the service in the numerator." NQMC Measure Domain Definitions. Available at: <https://www.ahrq.gov/gam/summaries/domain-definitions/index.html>. Accessed April 2nd, 2019

National Quality Strategy Priority: Health and Well-Being

Level of Aggregation: Health Plan/Program

Improvement Noted As: This measure should be interpreted in conjunction with the DQA measures: (1) Topical Fluoride for Children at Elevated Caries Risk, Dental Services (NQF#2528) and (2) Topical Fluoride for Children at Elevated Caries Risk, Dental or Oral Health Services. In general, a higher percentage of children at elevated caries risk who receive at least two topical fluoride applications during the reporting year indicates better performance.²

Data Required: Administrative enrollment and claims data; single year for measurement (prior 3 years needed for risk determination). 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 at elevated risk for dental caries receive at least 2 topical fluoride applications as oral health services (e.g., from a medical primary care provider) during the reporting period?
2. Over time, is the percentage of children who receive at least 2 topical fluoride applications as oral health services stable, increasing, or decreasing?

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

1. Age (e.g., 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)

Measure Limitations:

- *calls for the documentation of at least two instances (on different dates of service) of any combination of two fluoride specific CDT codes, D1206 and D1208. D1206 refers to professionally applied fluoride varnish and D1208 is any topical application of fluoride including fluoride gels or fluoride foams (excluding fluoride varnish).*
- *This measure does not take into account alternate home-use fluoride products including supplements.*
- *Some codes (i.e., a few endodontic codes) included to identify children at elevated risk may also be reported for instances such as trauma and may contribute to some overestimation of children at "elevated risk."*
- *Since the "elevated risk" determination requires an evaluation (to record a CDT risk code) or a treatment visit (to record a CDT treatment code), children who are enrolled but do not have a visit in the reporting year or a treatment visit in any of the prior three years will not have sufficient information to be included in the measure. While this is a limitation, the intent of this PROCESS OF CARE measure is to*

²Evidence-based guidelines suggest that at-risk children benefit from topical fluoride applications applied at least every 3–6 months.

seek to understand whether children who can be positively identified as being at elevated risk receive the recommended preventive services.

Topical Fluoride (Oral Health Services) Calculation for Children at Elevated Caries Risk

1. Check if the subject meets age criteria at the last day of the reporting year:³
 - a. If child is ≥ 1 and < 21 ,⁴ then proceed to next step.
 - b. If age criteria are not met or there are missing or invalid field codes (e.g., date of birth), then STOP processing. This subject does not get counted.
2. Check if subject is continuously enrolled for the reporting year (12 months) with a gap of no more than 31 days (one month gap for programs that determine eligibility on a monthly basis):⁵
 - a. If subject meets continuous enrollment criterion, then proceed to next step.
 - b. If subject does not meet enrollment criterion, then STOP processing. This subject does not get counted.

YOU NOW HAVE THE COUNT OF THOSE WHO MEET THE AGE AND ENROLLMENT CRITERIA

3. Check if subject is at "elevated risk":
 - a. If subject meets ANY of the following criteria, then include in **denominator**:
 - i. the subject has a CDT Code among those in Table 1 in the reporting year,
OR
 - ii. the subject has a CDT Code among those in Table 1 in any of the three years prior to the reporting year, (**NOTE:** The subject does not need to be enrolled in any of the prior three years for the denominator enrollment criteria; this is a "look back" for subjects who do have claims experience in any of the prior three years.)
OR
 - iii. the subject has a visit with a CDT code = (D0602 or D0603) in the reporting year.
 - b. If the subject does not meet any of the above criteria for elevated risk, then STOP processing. This subject will not be included in the measure denominator.

YOU NOW HAVE THE DENOMINATOR (DEN): Subjects who are at "elevated risk"

4. Check if subject received at least two fluoride applications as **oral health services** during the reporting year – at least two unique dates of service when topical fluoride was provided. Service provided on each date of service should satisfy the following criteria:
 - a. If [SERVICE CODE] = CDT D1206 or D1208,⁶ AND

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 Age: Medicaid/CHIP programs use under age 21 (<21) as upper bound of age range; Exchange quality reporting use under age 19 (<19) as the upper bound of the age range; other programs check with program officials. The age criteria should be reported with the measure score.

⁵ 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.

⁶ Topical Fluoride codes: For reporting years prior to 2013, use CDT codes D1203 or D1204 or D1206.

- b. If [RENDERING PROVIDER TAXONOMY] code is a valid NUCC maintained Provider Taxonomy code but NOT included in the NUCC maintained Provider Taxonomy Codes in Table 2 below, then include in numerator;⁷ STOP processing.
- c. If both a AND b are not met, then the service was not provided as an “oral health” service; STOP processing. This subject is already included in the denominator but will not be included in the numerator.

Note 1: Some states may use codes other than CDT codes to reimburse for fluoride.⁸ These codes should be included in the [SERVICE CODE] codes in addition to D1206 and D1208.

Note 2: No more than one fluoride application can be counted for the same member on the same date of service.

Note 3: 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: Subjects at “elevated risk” who received at least two fluoride applications as oral health services

- 5. 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: CDT Codes to identify “elevated risk”

D1352	D2392	D2610	D2710	D2782	D2940	D3330
D1354	D2393	D2620	D2712	D2783	D2941	
D2140	D2394	D2630	D2720	D2790	D2950	
D2150	D2410	D2642	D2721	D2791	D3110	
D2160	D2420	D2643	D2722	D2792	D3120	
D2161	D2430	D2644	D2740	D2794	D3220	
D2330	D2510	D2650	D2750	D2799	D3221	
D2331	D2520	D2651	D2751	D2930	D3222	
D2332	D2530	D2652	D2752	D2931	D3230	
D2335	D2542	D2662	D2753	D2932	D3240	
D2390	D2543	D2663	D2780	D2933	D3310	
D2391	D2544	D2664	D2781	D2934	D3320	

⁷ **Identifying “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.

⁸ **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. Additional resource: https://www.aap.org/en-us/Documents/coding_factsheet_oral_health.pdf

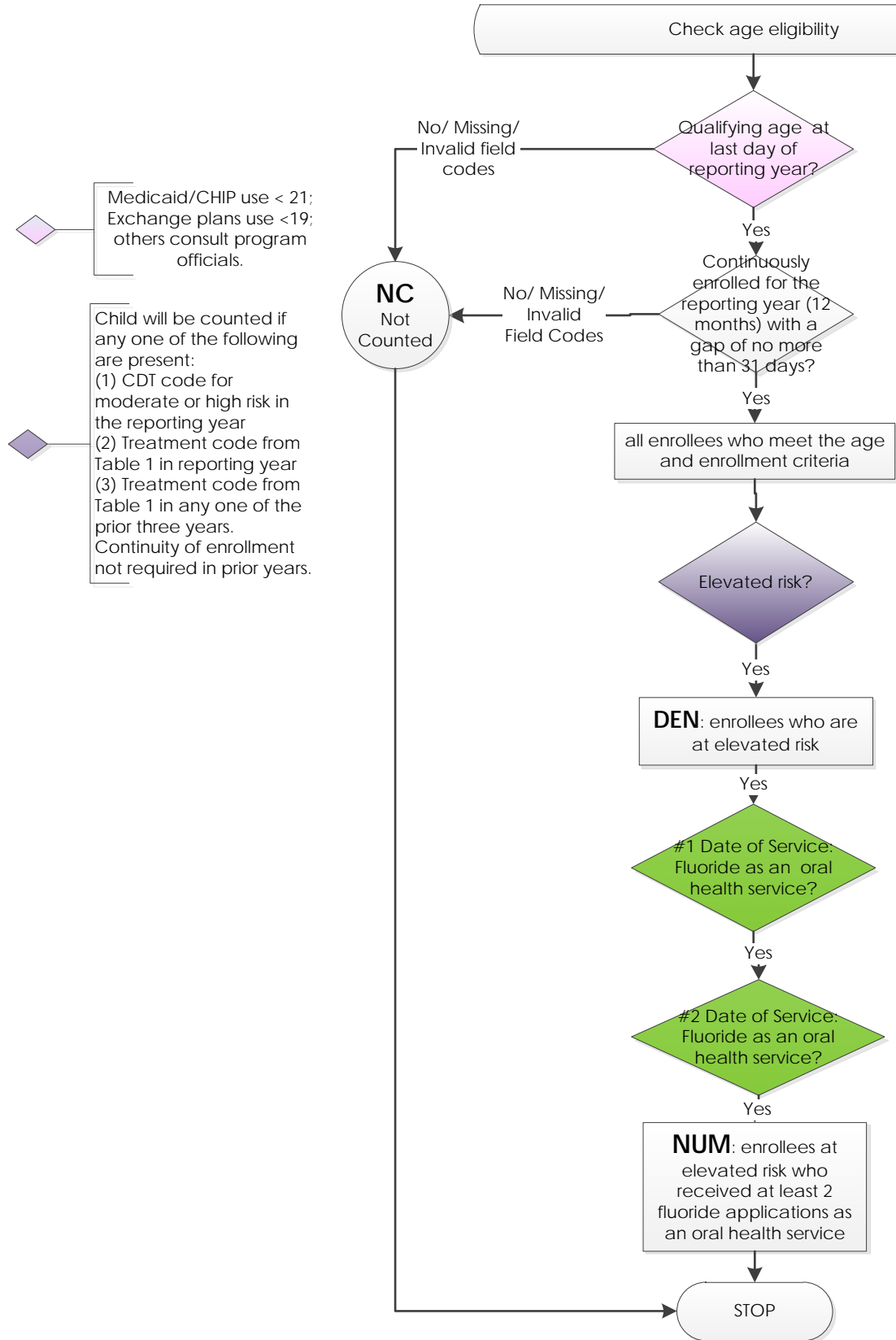
Table 2: NUCC maintained Provider Taxonomy Codes classified as “Dental Service”*

122300000X	1223P0106X	1223X0008X	125Q00000X
1223D0001X	1223P0221X	1223X0400X	261QF0400X
1223D0004X	1223P0300X	124Q00000X+	261QR1300X
1223E0200X	1223P0700X	125J00000X	1223X2210X
1223G0001X	1223S0112X	125K00000X	

*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.

*** 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 to identify topical fluoride 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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