

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

## DQA Measure Technical Specifications: Administrative Claims-Based Measures

### Care Continuity, Dental Services

**Description:** Percentage of all children enrolled in two consecutive years who received a comprehensive or periodic oral evaluation in both years  
**Numerator:** Unduplicated number of children who received a comprehensive or periodic oral evaluation as a dental service in both years  
**Denominator:** Unduplicated number of all children enrolled in two consecutive years  
**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).

- (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](http://www.cdc.gov/healthywater/hygiene/disease/dental_caries.html). Accessed May 25, 2021.
- (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/ADA/Science%20and%20Research/HPI/Files/HPIBrief\\_1016\\_1.pdf?la=en](https://www.ada.org/~media/ADA/Science%20and%20Research/HPI/Files/HPIBrief_1016_1.pdf?la=en). Accessed May 25, 2021.

**National Quality Measures Clearinghouse:** Access;<sup>1</sup> Process<sup>2</sup>

**IOM Aim:** Equity, Effectiveness

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

**Improvement Noted As:** A higher score indicates better quality.

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

<sup>1</sup> **Access (Clinical Quality Measure):** "Access to care is the attainment of timely and appropriate health care by patients or enrollees of a health care organization or clinician. Access measures are supported by evidence that an association exists between the measure and the outcomes of or satisfaction with care." National Quality Measures Clearinghouse. Available at: <https://www.ahrq.gov/gam/summaries/domain-definitions/index.html>. Accessed May 25, 2021.

<sup>2</sup> **Process:** "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 May 25, 2021.

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

1. What is the percentage of children who have continuous care over 2 years?
2. Does the percentage of children with continuous care vary by the stratification variables?
3. Are there disparities in continuous care among different groups based on the stratification variables?
4. Over time, does the percentage of children with continuous care stay stable, increase or decrease?

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

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)

## Care Continuity (Dental Services) Calculation

1. Check if the subject meets age criteria at the last day of the reporting year:<sup>3</sup>
  - a. If child is  $\geq 1$  and  $< 21$ ,<sup>4</sup> 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 at least 180 days in each year (i.e., 180 days in reporting year AND 180 days in prior year):<sup>5</sup>
  - a. If subject meets continuous enrollment criteria, then include in **denominator**; proceed to next step.
  - b. If subject does not meet enrollment criteria, then STOP processing. This subject does not get counted in the denominator.

### YOU NOW HAVE THE DENOMINATOR (DEN) COUNT: All subjects who meet age and enrollment criteria in each year

3. Check if subject received oral evaluation as a dental service in each year:
  - a. If [CDT CODE] = D0120 or D0150 or D0145 in the reporting year AND in the prior year, 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>6</sup>
  - 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 subject is already included in the denominator but will not be included in the numerator.

**Note:** At least one **claim** for oral evaluation in the reporting year AND in the prior year must be with a provider whose [RENDERING PROVIDER TAXONOMY] code = any of the NUCC maintained Provider Taxonomy Codes in Table 1.

### YOU NOW HAVE NUMERATOR (NUM) COUNT: Subjects who received an oral evaluation as a dental service in each year

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

<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> **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.

<sup>5</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>6</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.

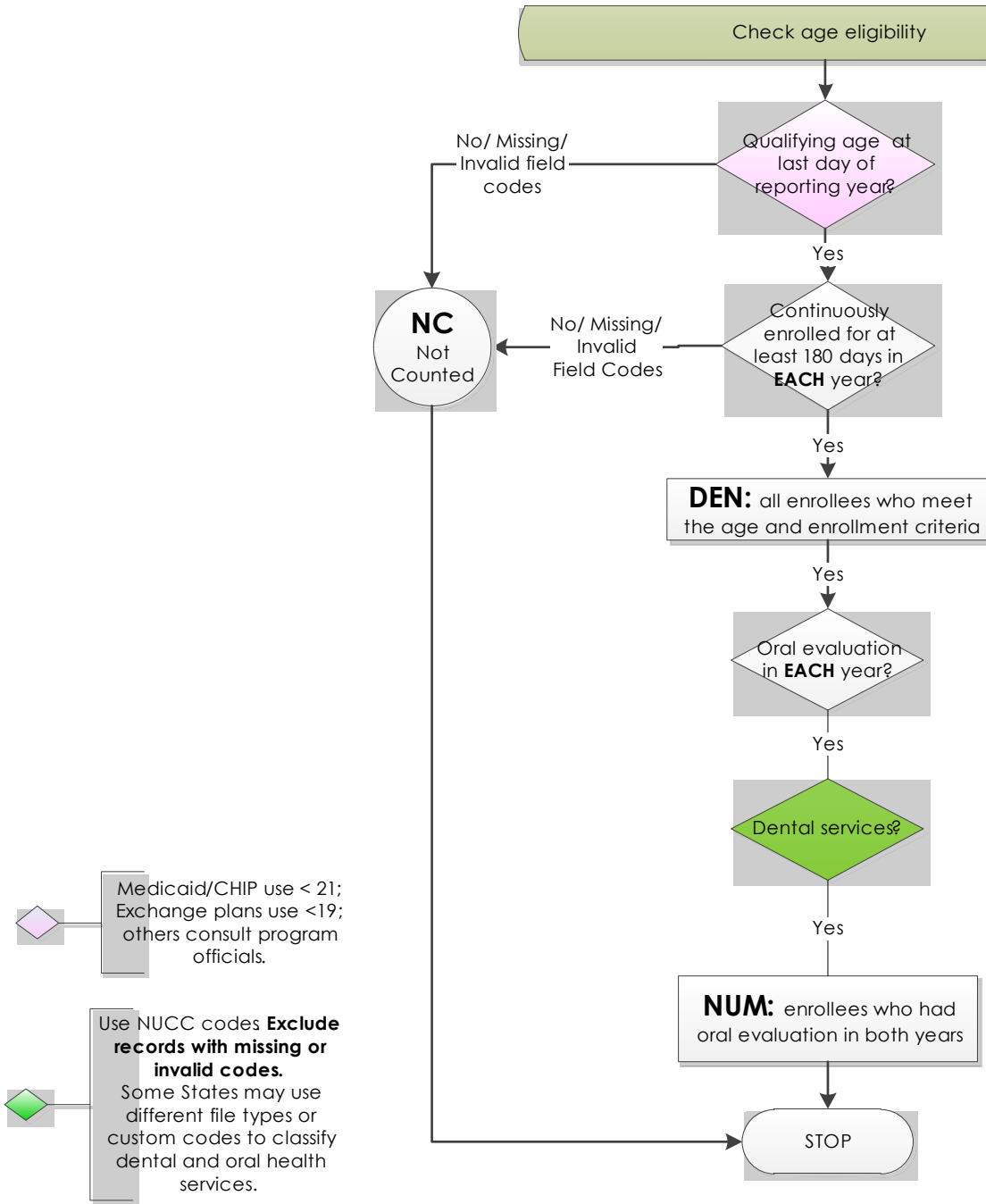
**Table 1: NUCC maintained Provider Taxonomy Codes classified as “Dental Service”\***

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 to 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.\*\*\*



## Practice-Level Reporting

### **GUIDANCE FOR MEASURING PERFORMANCE OF DENTAL PRACTICES**

Standardized measurement that is aligned across different levels of reporting aggregation and across public and private sectors can help pave the way to improvement. As Medicaid programs and managed care organizations are increasingly held accountable for performance on these measures, they in turn hold their contracted practices accountable. Because practice-level measurement is often driven vertically (from program to plan to practice), practice-level measures will be most effective when aligned with program- and plan-level measurement. Before proceeding with measure implementation, please review the [DQA's Guidance on Practice Based Measures Implementation](#).

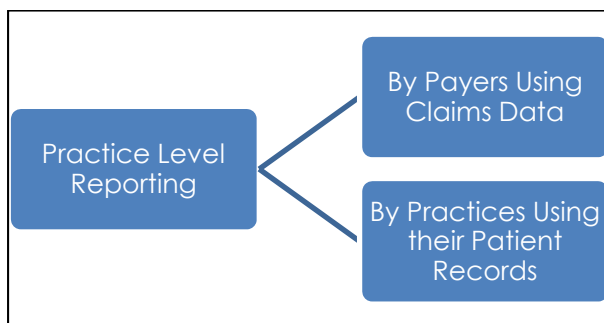
**Description:** Percentage of children aged 1 through 20 years *in a practice* who received a problem focused, limited, periodic, or comprehensive oral evaluation in the year prior to the reporting year who also received a comprehensive or periodic oral evaluation in the reporting year

**Numerator:** Unduplicated number of children *in a practice* who received a comprehensive or periodic oral evaluation in the reporting year

**Denominator:** Unduplicated number of children aged 1 through 20 years *in a practice* who received a *problem focused, limited, periodic, or comprehensive oral evaluation* in the year prior to the reporting year

**Rate:** NUM/DEN

Attribution of patients to a practice for the purposes of defining the denominator is the main characteristic that must be adapted for this level of reporting. In addition, there must also be consideration of denominator sizes that allow for reliable comparisons between entities. Practice level reporting can occur in 2 ways:



## **GUIDANCE ON USING CLAIMS DATA FOR REPORTING ON THE PERFORMANCE OF DENTAL PRACTICES BY PAYERS**

### **ATTRIBUTION for determining the denominator: Identify practices eligible for the measure and patients attributable to the practice**

#### Practice Definition

“Practice” = An entity with a unique TIN

“Group Practice” = An overall dental group with more than one practice location

“Practice Location” = A physical office that is a practice or part of a group of practices

#### **1. Determine if practice is eligible for this measure (i.e., does not include only specialty practice dentists):**

- a. If [BILLING PROVIDER] = \*unique TIN\* in the reporting year and the prior year, AND
- b. If [RENDERING PROVIDER] = any of the NUCC Codes in Table 2 in any claim from \*unique TIN\*

- This step is not tied to the individual patient. Use \*all claims\* by billing practice and check if \*any\* claim has the appropriate rendering provider.
- In some instances, each location may have its own unique TIN. In other instances, a group practice with several physical locations may share a single TIN. In the latter situation, if the intent of measurement is to derive a score for each location, then local data elements that can uniquely identify individual practice locations may need to be applied.
- Map to provider files that have data available on provider type/specialty if NUCC codes are not used. The purpose of restricting by provider type is to eliminate practices that do not provide routine, preventive care.
- Claims with missing or invalid TIN or NUCC codes should not be included.

#### **2. Among patients meeting the age and enrollment criteria for the payer, attribute individual patients to eligible practices (patient had an oral evaluation in an eligible practice):**

- a. If [CDT CODE] = D0120 OR D0140 OR D0145 OR D0150 or D0160 OR D0170 OR D0180 **in the year PRIOR to the reporting year**, AND
- b. If [BILLING PROVIDER] = one of the eligible \*unique TIN\* in the reporting year, then include in denominator; proceed to next step.

- The same patient may be attributed to multiple “practices” or multiple “locations”; i.e., one patient can be counted in the denominator of more than one eligible TIN [or practice location within a TIN]. However, within a single measured entity, the patient should only be attributed once; i.e., within a TIN when reporting for the group overall, a patient is only counted once in the denominator.

**You now have the practice-level specific denominator. Follow the program/plan level specifications for determining the practice-level numerator.**

### **DENOMINATOR SIZE**

If the denominator is <100 patients, the measure score may not be reliable and should not be used in accountability applications.

### **Additional Guidance**

- **Measure Stratification.** Stratify denominator by oral evaluation category:
  - (1) Patients who received a comprehensive or periodic oral evaluation in the year prior to the reporting year (D0120, D0145, D0150)
  - (2) Problem focused evaluation in the year prior to the reporting year (D0140, D0160, D0170, D0180) and NOT comprehensive or periodic evaluation in the year prior to the reporting year (D0120, D0145, D0150)
- The two denominator stratifications (age and oral evaluation category) should be done separately and not in combination.
- The denominator stratifications should represent mutually exclusive categories: The same child will only be included in one oral evaluation category. The denominators in the two oral evaluation categories should sum to equal the overall measure score denominator.

### **GUIDANCE ON USING DATA FROM BILLING/PRACTICE MANAGEMENT SOFTWARE OR PATIENT ELECTRONIC RECORDS FOR REPORTING ON THE PERFORMANCE OF DENTAL PRACTICES (BY DENTAL PRACTICES)**

#### **ATTRIBUTION for determining the denominator: Identifying patients of record in the practice**

**Identify patients of record for the practice - check if subject received an oral evaluation in the practice in the reporting year:**

- a. If [CDT CODE] = D0120 OR D0140 OR D0145 OR D0150 or D0160 OR D0170 OR D0180 **in the year PRIOR to the reporting year** within the practice, then include in the denominator.
- b. If a is not met, then the patient is not eligible for inclusion in the denominator.

**Note:** This replaces Step 2 (enrollment requirements) in the Program/Plan specification above. Practices should follow all other steps in the program/plan specifications.

#### **Additional Guidance**

- **“Active” Patients:** Some systems have a structured data element to denote if a patient is active in the practice. This is not universally present in all systems or universally used by practices that have this. For the purposes of this measure, that data element should \*not\* be used when determining whether a patient should be included in the practice's denominator.
- **Patient attribution:** The same patient may be attributed to multiple “practices” or multiple “locations”; i.e., one patient can be counted in the denominator of more than one eligible TIN [or practice location within a TIN]. However, within a single measured entity, the patient should only be attributed once; i.e., within a TIN when reporting for the group overall, a patient is only counted once in the denominator.
- **Completed Procedure:** Include all posted procedures for completed treatment whether paid or unpaid. The code does NOT need to have been billed to an insurance company. Do not include procedures for which treatment was not completed (i.e., planned treatment).
- **Continuing Care (Numerator Determination):** Patients attributed to the practice being measured should receive the comprehensive or periodic evaluation in the reporting year from that same practice to be



included in the numerator. An oral evaluation received from another practice should not be counted in the numerator.

- **Measure Stratification.** Stratify denominator by oral evaluation category:
  - (1) Patients who received a comprehensive or periodic oral evaluation in the year prior to the reporting year (D0120, D0145, D0150)
  - (2) Problem focused evaluation in the year prior to the reporting year (D0140, D0160, D0170, D0180) and NOT comprehensive or periodic evaluation in the year prior to the reporting year (D0120, D0145, D0150)
- The two denominator stratifications (age and oral evaluation category) should be done separately and not in combination.
- The denominator stratifications should represent mutually exclusive categories: The same child will only be included in one oral evaluation category. The denominators in the two oral evaluation categories should sum to equal the overall measure score denominator.

#### **DENOMINATOR SIZE**

If the denominator is <50 patients, the measure score may not be reliable and should not be used in accountability applications.

The e-specification of this measure can be accessed at the United States Health Information Knowledgebase website: <https://ushik.ahrq.gov/ViewItemDetails?&system=dcqm&itemKey=202104000>

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