DQA Measure Specifications: Administrative Claims-Based Measures

Ongoing Care in Adults with Periodontitis

**Description:** Percentage of enrolled adults aged 30 years and older with a history of periodontitis who received an oral prophylaxis OR scaling/root planing OR periodontal maintenance visit at least 2 times within the reporting year

**Numerator:** Unduplicated number of all enrolled adults treated for periodontitis who received an oral prophylaxis OR scaling/root planing OR periodontal maintenance visit at least 2 times

**Denominator(s):** Unduplicated number of enrolled adults with a history of periodontitis

**Rate:** NUM/DEN

**Rationale:** National estimates of the prevalence of periodontitis estimate that 47% of adults aged 30 years and older have periodontitis.\(^1\) Periodontal follow-up is critical in patients following treatment for active periodontal disease. Although evidence-based guidelines or systematic reviews do not exist on this topic, multiple independent studies have shown that a periodontal maintenance program following active periodontal therapy is effective and reduces tooth loss and recurrence of disease in compliant patients.\(^2\)-\(^4\) The periodontal maintenance programs studied included updates of medical and dental histories, periodontal examinations, debridement, prophylaxis, and fluoride application as well as oral hygiene instructions and repeated scaling and root planing for sites indicating disease activity. A Position Paper from the American Academy of Periodontology (AAP) includes several citations to support its recommendation that “successful long-term control of periodontal disease and implant complications depends upon active periodontal maintenance care and appropriate additional therapy, if indicated.”\(^5\) The AAP Position Paper additionally suggests that for individuals with history of periodontitis, periodontal maintenance services should be performed at least four times per year with 3 months interval between each service for a decreased likelihood of disease progression.\(^5\)


**AHRQ Domain:** Process\(^1\)

\(^1\) **Process (Clinical Quality Measure):** “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.” National Quality Measures Clearinghouse. Available at: [http://www.qualitymeasures.ahrq.gov/about/domain-definitions.aspx](http://www.qualitymeasures.ahrq.gov/about/domain-definitions.aspx). Accessed August 10, 2015.
IOM Aim: Equity, Effectiveness

Level of Aggregation: Health Plan/Program

Improvement Noted As: A higher score indicates better quality

Data Required: Dental administrative enrollment and claims data; single year (prior 3 years needed for determination of history of periodontitis)

Claims Data: 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 is the percentage of adults with periodontitis who received ongoing care during the reporting period?
2. Does the percentage of adults with periodontitis who received ongoing care vary by any of the stratification variables?
3. Are there disparities in receipt of ongoing care based on stratification variables?
4. Over time, does the percentage of adults with periodontitis receiving ongoing care stay stable, increase or decrease?

Applicable Stratification Variables


Measure Limitations due to Limitations of Administrative Data:

- Due to lack of diagnostic codes reported in dental claims, “history of periodontitis” is determined based on CDT codes.
- Since the “history of periodontitis” determination requires a periodontal treatment or maintenance visit recorded with dental procedure codes, adults who are enrolled but do not have a claim in any of the prior three years will not have sufficient information to be included in the measure.

While the above are limitations, the intent of this PROCESS measure is to seek to understand whether adults who can be positively identified as having a history of periodontitis receive ongoing care. The denominator population is not intended to identify the universe of patients with periodontitis; rather, it is designed to identify a reliable sample for quality measurement.
Periodontitis: Ongoing Care Calculation

1. Check if the enrollee meets age criterion at the last day of the reporting year:\(^2\)
   a. If subject is \(\geq 30\), 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 the reporting year (12 months) with a single gap of no more than 31 days:\(^3\)
   a. If subject meets continuous enrollment criterion, then proceed to next step.
   b. If subject does not meet enrollment criterion, then STOP processing. This enrollee does not get counted in the denominator.

3. Check if subject has a history of periodontitis:
   a. If subject has a [CDT Code] = D4240 or D4241 or D4260 or D4261 or D4341 or D4342 or D4910 in any of the three years prior to the measurement year, then include in denominator.
   b. If not, then STOP processing. This enrollee will not be included in the denominator.

   \textbf{NOTE:} There is no minimum enrollment criterion during the 3 years prior to the reporting year. This past history is a “look back” period for available claims. The reporting year remains a single year and is the only year during which minimum enrollment length must be verified.

YOU NOW HAVE THE DENOMINATOR (DEN) COUNT: Enrollees with a history of periodontitis

4. Check if subject received at least 2 ongoing care visits during the reporting year — at least two unique dates of service when an ongoing care service was provided. Service provided on each date of service should satisfy the following criterion:
   a. If [CDT CODE] = D1110 OR D4910 OR D4341 OR D4342, then include in numerator; STOP processing.
   b. If not, then service was not provided, STOP processing. This enrollee is already included in the denominator but will not be included in the numerator.

   \textbf{Note:} No more than one ongoing care service can be counted for the same member on the same date of service.

YOU NOW HAVE NUMERATOR COUNT: Enrollees with periodontitis who received at least 2 ongoing care visits during the reporting year

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

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\(^5\) Medicaid programs exclude those enrollees who do not qualify for dental benefits. The exclusion criterion should be reported along with the number and percentage of members excluded.

\(^6\) Enrollment in “same” plan vs. “any” plan: At the state program level (e.g., Medicaid) 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.
*** 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 excluded from measurement. 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***
Check age eligibility

Age >= 30?

Yes

No/ Missing/ Invalid field codes

No/ Missing/ Invalid field codes

continuously enrolled for 12 months with a single gap of no more than 31 days?

Yes

History of periodontitis?

Yes

DEN: All enrollees with a history of periodontitis

Yes

#1 Date of Service: Ongoing Care Visit

Yes

#2 Date of Service: Ongoing Care Visit

NUM: Enrollees with periodontitis who received at least 2 ongoing care visits during the reporting year

STOP