DENTAL QUALITY ALLIANCE®

Improving Oral Health Through Measurement

DATE: April 15, 2024

RE: CALL FOR REVIEW OF DQA INTERIM REPORT ON TESTING OF *EARLY CHILDHOOD DENTAL ORAL EVALUATION FOLLOWING MEDICAL PREVENTIVE SERVICE VISIT* MEASURE

The Dental Quality Alliance (DQA) calls for review of its interim report on the DQA *Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit* measure testing project. This report is to update all interested parties on the measure specifications and to highlight key findings and decisions to date, as well as provide an overview of the testing process.

We are asking that you please take the time to review the report and provide your responses to the DQA at dqa@ada.org by **May 15, 2024.**

Your feedback is very important to this project, and we greatly appreciate your responses. Thank you for your time.

DQA
DENTAL QUALITY ALLIANCE™
Improving Oral Health Through Measurement

Measure Testing: *Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit*

Interim Report for Public Comment: April 2024

FOR COMMENT: DO NOT REFERENCE OR CITE IN ANY MANNER

Dental Quality Alliance©

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Purpose

The purpose of this interim report is to inform and seek feedback from interested parties on the development and testing of the measure Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit using claims and enrollment data. **The DQA urges all interested parties to carefully review this report and provide feedback. It is anticipated that the DQA will review and act on this measure at its upcoming meeting in June.**

Please send comments to dqa@ada.org **by May 15, 2024**.

Background

The Dental Quality Alliance (DQA) currently has a set of pediatric measures focused on caries prevention and disease management. These measures were developed for implementation with enrollment and claims data for program (e.g., Medicaid and CHIP) and plan level reporting. Specifications for these measures are available on the DQA website. Although some existing DQA measures involve medical-dental coordination to realize improvement (e.g., measures of caries-related emergency department use and follow-up dental visits), the existing measures are largely focused on improvement within the dental care system. However, the medical care system plays an important role in pediatric oral health, especially among the youngest children. In 2023, the DQA Measure Development and Maintenance Committee (MDMC) began the process of developing and testing a measure of the percentage of children who have a periodic or comprehensive oral evaluation following a medical preventive service visit after excluding those who have recently had an oral evaluation with a dental provider. This measure is designed to understand trends in visits between the medical and dental care systems and to identify opportunities to connect children accessing the medical system to dental care.

Rationale and Intent

Measure Rationale

Dental caries is the most common chronic disease in children in the United States.[1] Almost one-fourth of children aged 2-5 years old and 34% of 2-5 year-olds living in poverty in the United States have dental caries.[2] The American Academy of Pediatrics, American Academy of Pediatric Dentistry, American Dental Association, and American Public Health Association all

recommend that children have a dental visit by age 1 to allow for timely prevention and identification of dental disease and to enable more conservative approaches to early childhood caries management.[3] Efforts to reduce the incidence of early childhood caries and to identify disease early not only reduce adverse consequences of caries in early childhood (i.e., pain, problems with eating and sleeping, disease progression that leads to emergency department visits and hospitalizations), but also establish the foundation for better oral health in the future. In early childhood, children are more likely to have a visit with a medical provider than a dental provider. Among Medicaid-enrolled children, 79% of 1–2-year-olds had a medical visit in federal fiscal year 2021 compared with 26% who had a dental visit. Among 3–5-year-olds, 63% had a medical visit and 49% had a dental visit.[4] The high rates of medical visits in early childhood represent an opportunity to connect children accessing the medical system to dental care. The American Academy of Pediatrics (AAP) notes the importance of establishing care with a dental provider in early childhood through medical-dental coordination in addition to conducting oral health screenings and providing basic preventive services and anticipatory guidance within medical settings.[3] An AAP clinical report specifically comments: "With early referral to a dental provider, there is an opportunity to maintain good oral health, prevent disease, treat disease early, and potentially decrease cost."[3]

Measure Intent

The intent of this measure is to support system or plan level efforts to connect young children who are accessing the medical care system with dental care. The measure focuses specifically on dental visits that include either a comprehensive oral evaluation or periodic oral evaluation. Visits with those procedures are more likely to be indicative of access to care that includes caries risk assessment, diagnosis, and treatment planning versus episodic or problem-based care (i.e., only addressing acute dental needs).

Measure Limitations

Due to the limitations of claims data, this measure cannot identify causal relationships: i.e., the measure cannot confirm that a child had a dental visit because of a referral by a medical provider. Likewise, while improvement on the measure may indicate an increased probability of children having an ongoing care relationship with a dental provider, the measure cannot confirm that an ongoing dental care relationship has been established. However, observing trends over time may contribute to assessments of the effectiveness of improvement efforts focused on improving referral rates to dental care and follow-through on those referrals.

Data Sources

Testing was conducted under contract with Key Analytics and Consulting, LLC, using Medicaid and CHIP enrollment and claims data contained within the Transformed Medicaid Statistical Information System (T MSIS) Analytic Files (TAFs) from the Centers for Medicare and Medicaid Services (CMS).[i] Data from the following states were used: Alaska, Delaware, Michigan, New Mexico, North Carolina, and Washington. These states were selected based on geographic diversity and good data quality for the critical data elements used to calculate the measure. They also were chosen based on their variation in policies to promote access to dental care in early childhood. For example, North Carolina's Into the Mouths of Babes program focuses on reimbursement and training of medical providers to conduct oral health screenings, apply topical fluoride, and make referrals to a dental home. Washington state's ABCD program uses reimbursement and special training for dental providers to see young children. Data from calendar years 2018 and 2019 were used. These years were selected because they were the most recent data available for two consecutive years that did not include 2020. Data from 2020 were avoided due to effects of the COVID-19 pandemic on healthcare service utilization.

Appendix 1 summarizes the population characteristics of the Medicaid and CHIP beneficiaries in these 6 states.

Appendix 2 provides a summary of the critical data elements for each program and quality assessments for those data elements.

Appendix 3 provides the detailed draft measure specifications.

Measure Summary Based on Testing Results

Table 1 below summarizes the measure description, denominator, and numerator. The detailed determinations and supporting testing data follow.

[i] This work was conducted as part of a larger project titled, *titled "The State of Oral Healthcare Use, Quality and Spending: Findings from Medicaid and CHIP Programs,"* made possible through a Data Use Agreement (RSCH-2020-55639) with the Centers for Medicare and Medicaid Services and approved by the American Dental Association IRB.

Table 1. Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit Measure Summary

Description	Denominator	Numerator
Percentage of enrolled children aged 6 months through 5 years who received a comprehensive or periodic oral evaluation with a dental provider within 6 months following a medical preventive service visit	Unduplicated number of enrolled children aged 6 months through 5 years with a medical preventive service visit	Unduplicated number of children who received a comprehensive or periodic oral evaluation as a dental service within 6 months following a medical preventive service
	• Earliest medical preventive service visit occurring between July 1st of year prior to reporting year and June 30th of reporting year • Enrollment requirements: enrolled on medical preventive service visit date and >=180 days following medical preventive service visit • Exclude: children with a comprehensive or periodic oral evaluation during the 180 days before the medical preventive service visit	• Subset of children in the denominator who have a comprehensive or periodic oral evaluation (D0120, D0145, D0150) with a dental provider during the 180 days following the medical preventive service visit date

Measure Denominator: Target Population

The DQA's MDMC considered the following in identifying the sample of beneficiaries to be included in the measure denominator: (1) identifying children with a medical preventive service visit, (2) determining the age range for inclusion in the measure, (3) determining minimum enrollment criteria, and (4) evaluating whether and which children should be excluded from the denominator.

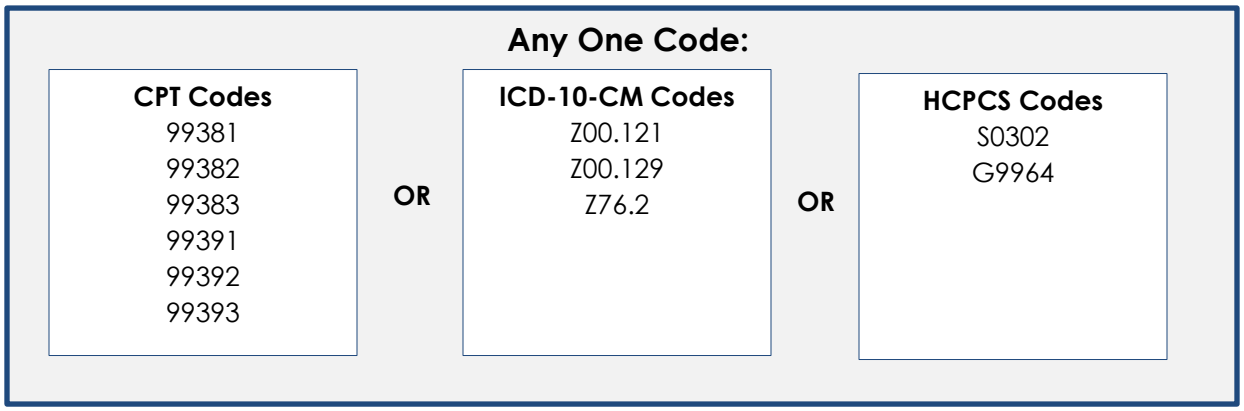
Identification of Children with Medical Preventive Service Visits using Claims Data

The measure focuses specifically on children who have had a medical preventive service visit (versus any type of medical visit). The focus is on those medical visits that are more comprehensive and prevention oriented, during which there is a greater opportunity to assess current access to dental care and provide anticipatory guidance and referrals.

Code set to identify medical preventive service visits in claims data

Code set identification was guided primarily by the American Academy of Pediatrics Bright Futures *Coding for Pediatric Preventive Care* guidance, focusing specifically on "preventive medicine service codes." The core codes include both Current Procedural Terminology (CPT) medical procedure codes and ICD-10-CM diagnosis codes. Some procedure and diagnosis codes only apply to certain age ranges. Consequently, only those codes appropriate to the target population of children aged 6 months through five years of age were included. Two early childhood diagnosis codes in the AAP's "preventive medicine service codes" were not included: Z00.110 (health supervision for newborn under 8 days old) and Z00.111 (health supervision for newborn 8 to 28 days old) because, at less than one-month old, these ages were considered to be too young to expect a dental referral. HCPCs codes related to pediatric preventive care also were reviewed, and code S0302 (Completed Early and Periodic Screening Diagnosis, and Treatment service) was included. In 2018, a series of new HCPCs codes (G9964-G9970) related to well-child visits with a PCP and referrals were introduced. Code G9964 (patient received at least one well-child visit with a pcp during the performance period) was included in the code set. The DQA will monitor adoption and implementation of the related referral codes to understand their future potential for identifying referrals between medical and dental providers. ICD-10-CM diagnosis code Z76.2 (encounter for health supervision and care of other healthy infant and child) also was included. Table 1 summarizes the codes currently included in the medical preventive services code set. The code descriptions are included in the detailed specifications in **Appendix 3**.

Figure 1. Code Set to Identify Medical Preventive Service Visits for Children Aged 6 Months through 5 Years



Time frame to identify medical preventive service visits in claims data

Medical preventive service visits are identified during the 12-month period between July 1st of the year prior to the reporting year and June 30th of the reporting year. A 12-month time frame to capture medical preventive service visits was selected to ensure a representative sample overall, sufficient sample sizes for smaller states, and sufficient sample sizes for stratifications by beneficiary characteristics. Consideration also was given to the measurement burden involved when more years of data are required to calculate a measure. Using a mid-year to mid-year time frame enabled the data requirements to be restricted to two calendar years while also allowing sufficient time for follow-up after the medical preventive service visit to identify subsequent oral evaluations for numerator inclusion as well as sufficient time prior to the medical visit to exclude children who recently had an oral evaluation.

Selection of index medical preventive service visit among multiple visits

The first medical preventive service visit is selected when there is more than one visit; this is the "index medical preventive service visit." Testing data indicated that 42%–54% of children younger than aged 6 years across the six states had more than one medical preventive service visit in 2018 (Table 2). The first visit was selected as the index visit because the intent of the measure is to support efforts to get children connected to dental care sooner rather than later.

Table 2. Percentage of Children <6 Years with More than One Medical Preventive Service Visit by Age, 2018

	<6 Years	< 1 Year	1 Year	2 Years	3 Years	4 Years	5 Years
Alaska	44%	76%	73%	38%	17%	12%	8%
Delaware	49%	86%	86%	59%	24%	5%	5%
Michigan	54%	85%	84%	54%	29%	25%	26%
New Mexico	47%	83%	85%	49%	16%	12%	8%
North Carolina	46%	85%	86%	49%	13%	6%	5%
Washington	42%	71%	83%	45%	8%	5%	4%

Age Range for Inclusion in Measure Denominator

The measure focuses on early childhood: children aged 6 months through 5 years on the date of the index medical preventive service visit. Initial data analyses were conducted including all Medicaid and CHIP beneficiaries younger than 21 years of age to understand the patterns of dental and medical visit utilization and how they vary by age group. Figure 2A summarizes the percentages of children with a medical preventive service and those with a comprehensive or periodic oral evaluation by age in 2018. The percentage of children with a medical preventive

service visit was higher than those who had an oral evaluation with a dental provider in early childhood. However, a higher percentage of children in the older age groups (from middle childhood through adolescence) had an oral evaluation compared with the percentage who had a medical preventive service during the year.

Data analyses also were conducted to better understand the extent of overlap between medical and dental visits. Specifically, the following were assessed:

- % of children with a medical preventive service visit and no oral evaluation,
- % of children with an oral evaluation and no medical preventive service visit,
- % of children with both a medical preventive service visit and an oral evaluation, and
- % of children with neither a medical preventive service visit nor an oral evaluation.

Table 3A summarizes the results of these analyses by age for 2018. The youngest children were most likely to have only a medical preventive service visit and no oral evaluation. As children moved through middle childhood and adolescence, there was a higher percentage of children with an oral evaluation and no medical preventive service visit; the percentage of children with neither type of visit increased as well. These testing data were verified through comparisons with related measures in the CMS Core Set of Children's Health Care Quality Measures for Medicaid and CHIP.[5] The patterns between related measure concepts were consistent and validated the testing data (Appendix 4).

Based on these data, children in early childhood were identified as the target population for the measure. The aim is to address the gap in the percentage of children who access dental care in early childhood, in furtherance of guidelines that recommend children have a visit with a dental provider by age 1 year. Subsequently, the above data analyses were repeated for children younger than 6 years of age with breakouts by each year of age (Figure 2B and Table 3B). Although the American Academy of Pediatrics defines "early childhood" as occurring from birth through four years and ending at age 5 years, the MDMC selected children between the ages of 6 months through five years (including age 5 years) as the appropriate target population. The lower age bound of six months was selected because tooth eruption typically does not occur before age six months. The upper bound of through age five years was based on several considerations. Early childhood caries is defined as affecting children younger than 6 years.[6,7] The evaluation of medical preventive service and oral evaluation utilization patterns found very similar patterns for children aged 4 years and those aged 5 years (Figure 2B and Table 3B). The selected age range also allows for stratification by <1, 1-2 years, and 3-5 years, which is consistent with both existing DQA measures as well as with CMS' EPSDT reporting.

Figure 2A. Percentage of Medicaid/CHIP Beneficiaries <21 Years with a Medical Preventive Service Visit (MPS) and Percentage with a Periodic or Comprehensive Oral Evaluation (OE), by Age, 2018

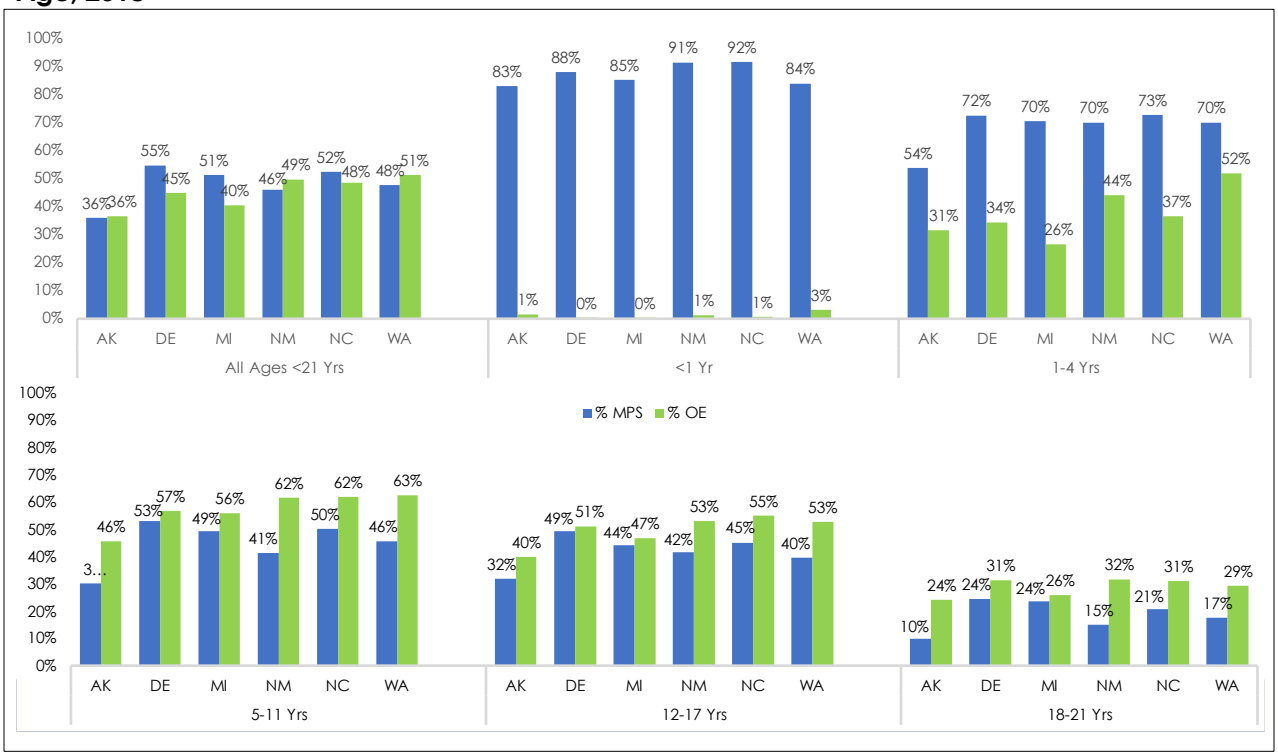


Figure 2B. Percentage of Medicaid/CHIP Beneficiaries <6 Years with a Medical Preventive Service Visit (MPS) and Percentage with a Periodic or Comprehensive Oral Evaluation (OE), by Age, 2018

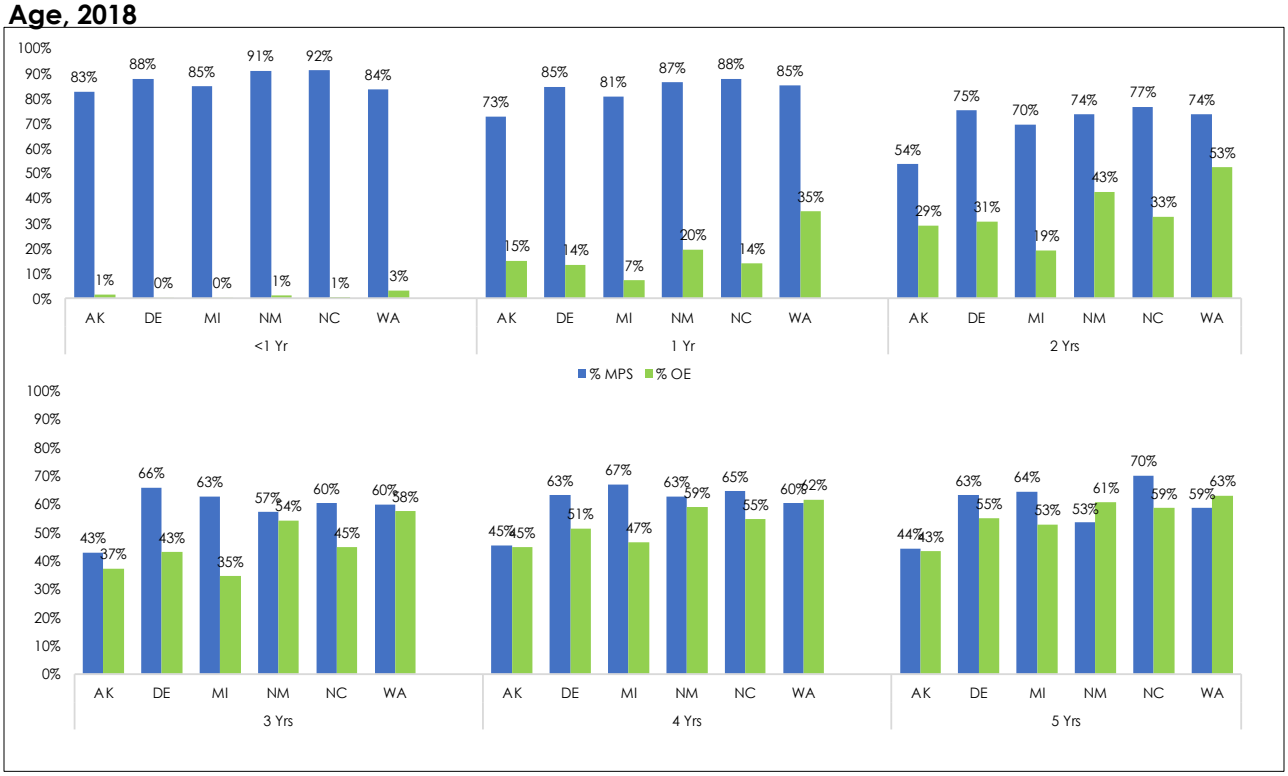


Table 3A. Patterns of Medical Preventive Service (MPS) and Dental Oral Evaluation (OE) Visits among Medicaid/CHIP Beneficiaries <21 Years, by Age Category, 2018

	Alaska	Delaware	Michigan	New Mexico	North Carolina	Washington
<21 Years						
MPS Only	20%	25%	27%	20%	23%	18%
OE Only	20%	15%	16%	23%	19%	21%
Both MPS & OE	16%	30%	24%	26%	29%	30%
Neither MPS nor OE	44%	30%	33%	31%	29%	31%
<1 Year						
MPS Only	82%	88%	85%	90%	90%	81%
OE Only	0%	0%	0%	0%	0%	0%
Both MPS & OE	1%	0%	0%	1%	1%	3%
Neither MPS nor OE	17%	12%	15%	9%	9%	16%
1-4 Years						
MPS Only	32%	43%	49%	36%	43%	28%
OE Only	11%	6%	4%	10%	7%	10%
Both MPS & OE	21%	29%	22%	34%	30%	42%
Neither MPS nor OE	36%	22%	25%	20%	20%	20%
5-11 Years						
MPS Only	12%	16%	16%	11%	13%	11%
OE Only	27%	19%	23%	31%	25%	28%
Both MPS & OE	18%	37%	33%	30%	37%	35%
Neither MPS nor OE	43%	28%	28%	28%	25%	26%
12-17 Years						
MPS Only	15%	17%	18%	14%	14%	13%
OE Only	23%	19%	20%	26%	24%	27%
Both MPS & OE	17%	32%	27%	27%	31%	26%
Neither MPS nor OE	45%	32%	35%	33%	31%	34%
18-21 Years						
MPS Only	5%	12%	13%	7%	10%	9%
OE Only	20%	19%	16%	24%	20%	21%
Both MPS & OE	5%	12%	10%	8%	11%	8%
Neither MPS nor OE	70%	57%	61%	61%	59%	62%

Table 3A. Patterns of Medical Preventive Service (MPS) and Dental Oral Evaluation (OE) Visits among Medicaid/CHIP Beneficiaries <6 Years, by Age Category, 2018

	Alaska	Delaware	Michigan	New Mexico	North Carolina	Washington
< Years						
MPS Only	38%	47%	51%	40%	47%	34%
OE Only	10%	6%	5%	11%	7%	10%
Both MPS & OE	19%	26%	21%	30%	28%	36%
Neither MPS nor OE	33%	21%	23%	19%	18%	20%
<1 Year						
MPS Only	82%	88%	85%	90%	90%	81%
OE Only	0%	0%	0%	0%	0%	0%
Both MPS & OE	1%	0%	0%	1%	1%	3%
Neither MPS nor OE	17%	12%	15%	9%	9%	16%
1 Year						
MPS Only	60%	72%	74%	68%	75%	52%
OE Only	2%	1%	0%	1%	0%	2%
Both MPS & OE	13%	13%	7%	19%	13%	33%
Neither MPS nor OE	25%	15%	19%	13%	12%	13%
2 Years						
MPS Only	33%	47%	53%	37%	47%	28%
OE Only	8%	3%	3%	6%	4%	7%
Both MPS & OE	21%	28%	16%	37%	29%	46%
Neither MPS nor OE	38%	22%	28%	20%	20%	19%
3 Years						
MPS Only	21%	31%	35%	20%	27%	18%
OE Only	15%	8%	7%	17%	12%	16%
Both MPS & OE	22%	35%	28%	37%	33%	42%
Neither MPS nor OE	42%	26%	30%	26%	28%	24%
4 Years						
MPS Only	18%	23%	29%	18%	22%	15%
OE Only	17%	11%	9%	15%	12%	17%
Both MPS & OE	28%	40%	38%	44%	43%	45%
Neither MPS nor OE	37%	26%	24%	23%	23%	23%
5 Years						
MPS Only	19%	22%	25%	15%	23%	15%
OE Only	18%	14%	13%	23%	11%	19%
Both MPS & OE	25%	41%	39%	38%	47%	44%
Neither MPS nor OE	38%	23%	23%	24%	19%	22%

Enrollment Criteria for Denominator Inclusion

The minimum enrollment criteria are that the beneficiary be enrolled on the date of the medical preventive service visit and at least 180 days continuously following the visit. These enrollment criteria are aligned with the measure numerator, which looks for an oral evaluation within six months following the medical preventive service visit. This enrollment length also is consistent with many other DQA measures. In measure development, the DQA balances (1) ensuring sufficient time for an individual to schedule and obtain the services contained in the measure numerator with (2) considering the impact of longer enrollment duration requirements on excluding individuals from the denominator and consequent implications for the representativeness of the denominator to the population that is the focus of measurement. More than 80% of all children with a medical preventive service visit between July 1, 2018, and June 30, 2019, met the enrollment criteria overall and within each year of age (i.e., among those <1 year, 1-year-olds, 2-year-olds, etc.). The beneficiary also should be enrolled at least one day in the reporting year. Testing data indicated that beneficiaries meeting the other enrollment requirements were enrolled in the reporting year.

Exclusion of Children with a Recent Oral Evaluation

Children who had a comprehensive or periodic oral evaluation with a dental provider within 180 days before the index medical preventive service are excluded from the measure's denominator. The aim of the measure is to support efforts to connect children who are accessing medical preventive care with dental care. For the purposes of this measure, children who have had a recent prior oral evaluation visit (i.e., within 180 days before the medical visit) are considered to have been established into dental care; as such, they are not the focus of this measure and are excluded from the measure's denominator. Both look-back periods of 180 days and 365 days were considered for the exclusion criteria. Across the six testing states, approximately 58% - 74% of children with a medical preventive service visit between July 1, 2018, and June 30, 2019, were retained in the denominator after excluding those who had an oral evaluation within the 180 days before the index medical preventive service visit; 48%-65% were retained in the denominator when the look-back period for exclusions was increased to 365 days (Figure 3A). Measure scores decreased when exclusions were applied (Figure 3B), indicating that removing these children resulted in proportionately greater decreases in the numerator compared with the denominator. This result is consistent with these children being established into care. The impact of exclusions on the denominator varied by age (Appendix 5).

The measure intent is to support system or plan level efforts to connect young children who are accessing the medical care system with dental care that includes caries risk assessment, diagnosis, and treatment planning that support early prevention, early identification and treatment of disease, and timely, ongoing monitoring of changes in caries risk and disease status. Although the measure does not directly assess an ongoing care relationship with a dental provider, the intent is to support efforts to establish such a relationship and, ultimately, support efforts to reduce early childhood caries. Based on this measure intent, the MDMC determined that the look-back period should be limited to 180 days for the purposes of excluding children from the denominator. A look-back period of up to one year during early childhood was considered too long to consider a child as being established into care that promotes early prevention and early identification and treatment of disease.

Figure 3A. Exclusions: Denominator Impact. Analysis of Exclusions from the Denominator Reported for Medicaid/CHIP Beneficiaries 6 Months through 5 Years, Children Remaining in Denominator as a Percentage of Children with a Medical Preventive Service Visit between July 2018 and June 2019

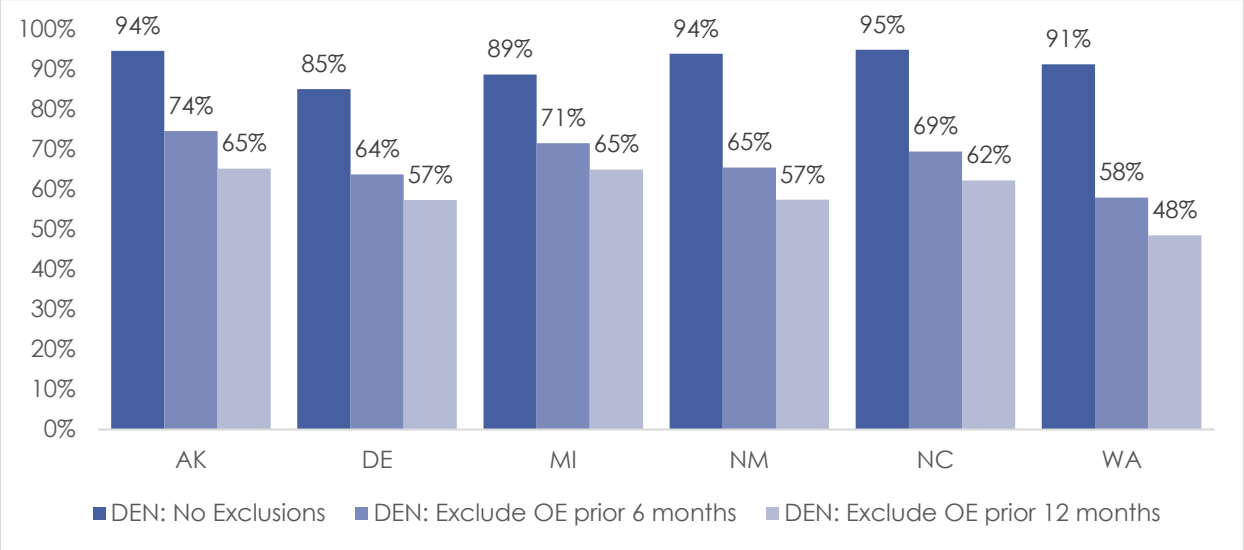
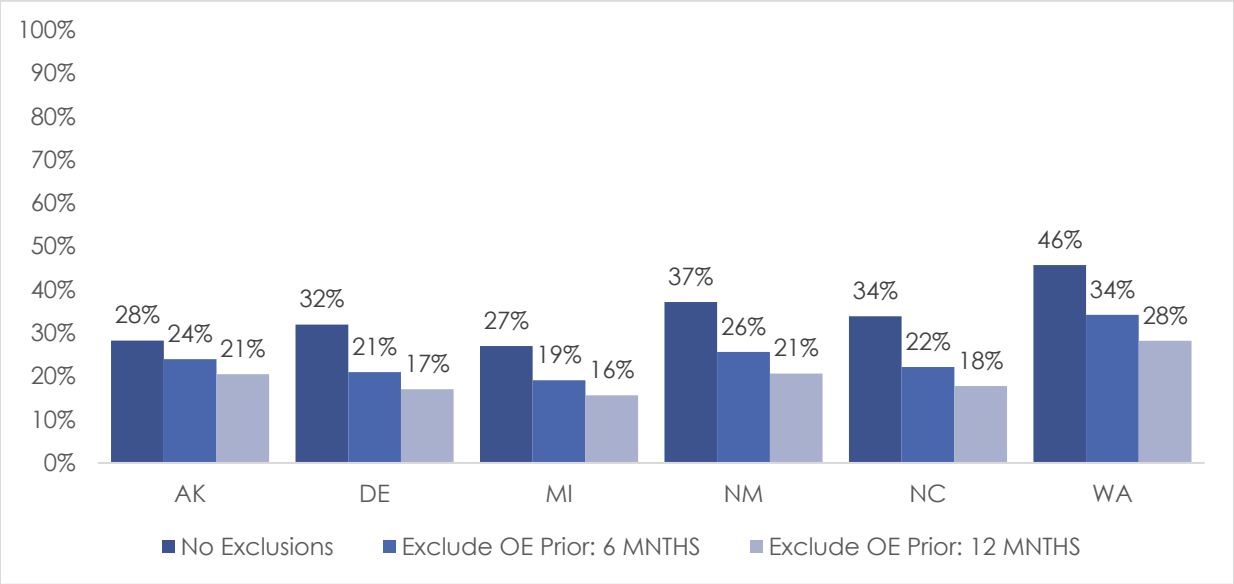


Figure 3B. Exclusions: Measure Score Impact. Percentage of Children with an Oral Evaluation Following a Medical Preventive Service Visit, with and without Denominator Exclusions



NOTES:

- **DEN: No Exclusions** represents children with a medical preventive service (MPS) visit between July 2018 and June 2018 who meet the measure's denominator age and enrollment criteria without any exclusions.
- **DEN: Exclude OE prior 6 months** represents the subset of children in the denominator without exclusions who did not have an oral evaluation in the 180 days prior to the MPS; that is, children with an oral evaluation within the 180 days before the MPS were excluded.
- **DEN: Exclude OE prior 12 months** represents the subset of children in the denominator without exclusions who did not have an oral evaluation in the 365 days prior to the MPS; that is, children with an oral evaluation within 365 days before the MPS were excluded.

Denominator Summary

Based on the above determinations, individuals are included in the measure's denominator if they: (1) have a medical preventive service visit between July 1st of the year prior to the reporting year through June 30th of the reporting year, (2) are aged 6 months through 5 years on the date of the medical preventive service visit, (3) are enrolled on the date of the medical preventive service visit and at least 180 days following the visit, and (4) have not had a periodic or comprehensive oral evaluation with a dental provider during the 180 days before the medical preventive service visit.

Measure Numerator: Subset of Denominator Who Received an Oral Evaluation

The measure numerator includes the subset of children in the denominator who had a comprehensive or periodic oral evaluation with a dental provider within 180 days following the index medical preventive service visit.

The measure intent is to support efforts to connect beneficiaries who are accessing the medical care system to dental care during early childhood. The measure specifically assesses whether the beneficiary had a comprehensive or periodic oral evaluation with a dental provider. Visits with those procedures are more likely to be indicative of access to care that that includes caries risk assessment, diagnosis, and treatment planning that support early prevention, early identification and treatment of disease, and timely, ongoing monitoring of changes in caries risk and disease status.

Codes for Numerator Identification

Inclusion in the numerator requires at least one of the following CDT codes that signifies a comprehensive or periodic oral evaluation during early childhood: D0120, D0145, and D0150.

Time Frame for Identifying Oral Evaluation Receipt

The MDMC determined that receipt of a comprehensive or periodic oral evaluation within 180 days following the medical preventive service visit represented a time frame that balanced getting children established into dental care in a timely manner with the time needed to connect children to a dental provider and to schedule and obtain an appointment.

Resulting Measure Logic and Performance Scores

Figure 4 summarizes the measure numerator and denominator, including the timing for determining exclusions from the denominator, enrollment, and oral evaluation receipt. Figure 5 shows the measure performance scores. Table 3 provides the performance scores stratified by age. The performance scores ranged from 19% to 34% among the six testing states. Performance scores were highest among children aged 3-5 years. The measure demonstrates variation in performance between states as well as a significant performance gap overall. Even in the highest performing state, 66% of children younger than 6 years old did not have a periodic

or comprehensive oral evaluation with a dental provider following the index medical preventive service visit, after excluding those who had an oral evaluation within the 6 months before the medical visit.

Figure 4. Measure Logic Summary, Using Reporting Year 2019 as Example

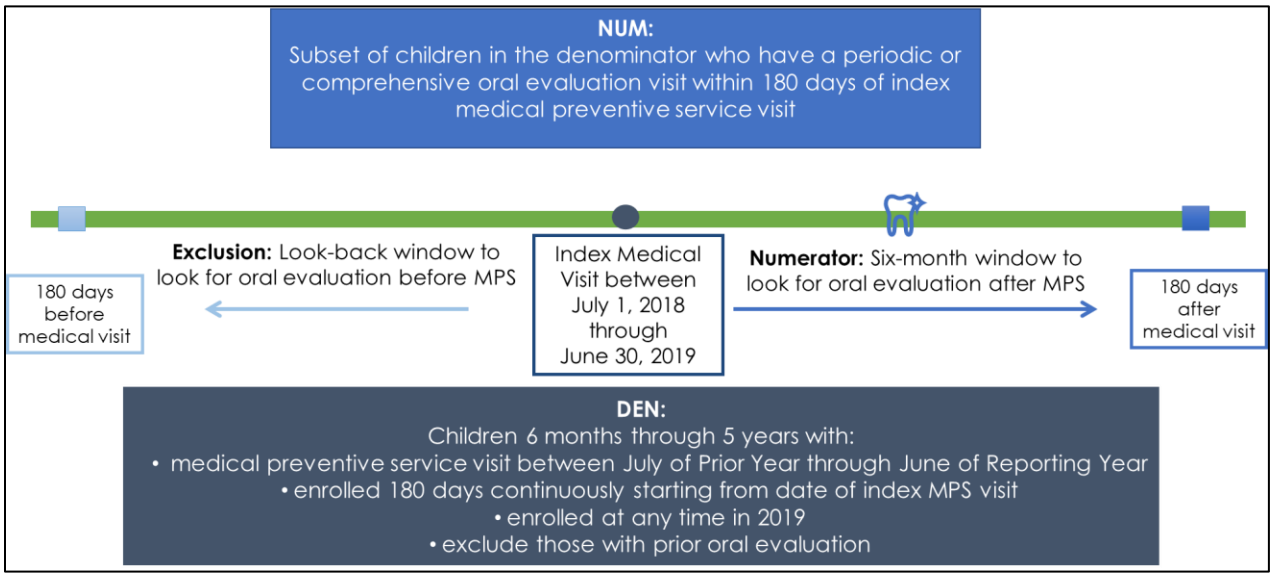


Figure 5. Measure Scores for Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit, Reporting Year 2019

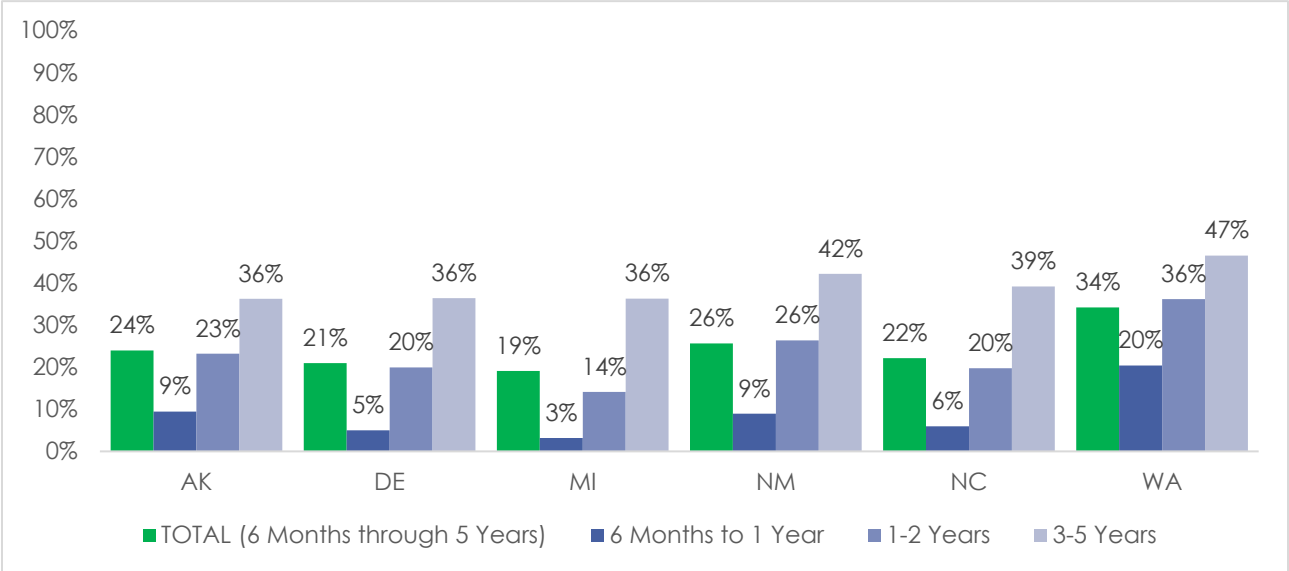


Table 3. Measure Scores, Breakout by Each Year of Age, Reporting Year 2019

	TOTAL, 6 Months through 5 Years	6 Months to 1 year	1 Year	2 Years	3 Years	4 Years	5 Years
Alaska							
Num	3,204	371	530	515	547	684	559
Den	13,360	3,924	2,647	1,855	1,656	1,797	1,484
Score	24%	9%	20%	28%	33%	38%	38%
Delaware							
Num	3,626	255	557	639	699	788	688
Den	17,276	5,304	3,444	2,555	2,021	2,143	1,809
Score	21%	5%	16%	25%	35%	37%	38%
Michigan							
Num	33,995	1,705	3,398	4,831	7,502	9,068	7,500
Den	178,041	53,584	32,827	25,366	22,736	24,406	19,176
Score	19%	3%	10%	19%	33%	37%	39%
New Mexico							
Num	12,389	1,482	2,248	1,909	2,206	2,638	1,906
Den	48,326	26,130	9,706	6,054	5,377	6,250	4,372
Score	26%	9%	23%	32%	41%	42%	44%
North Carolina							
Num	46,875	4,128	7,077	6,060	8,693	11,325	7,105
Den	211,485	69,489	40,633	25,798	24,630	26,725	24,210
Score	22%	6%	17%	23%	35%	42%	40%
Washington							
Num	38,652	8,160	7,306	4,838	6,219	6,549	5,593
Den	112,949	39,969	20,522	13,049	13,634	13,740	12,083
Score	34%	20%	36%	37%	46%	48%	46%

Acknowledgements

Data for Testing

Centers for Medicare and Medicaid Services (CMS). Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAFs) made possible through a Data Use Agreement (RSCH-2020-55639) with CMS.

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Appendix 1: Population Characteristics, 2019

Medicaid and CHIP	Alaska	Delaware	Michigan	New Mexico	North Carolina	Washington
Total # Beneficiaries <6 Years	35,968	38,864	369,299	112,342	439,336	293,087
Age Group						
<1 yr	15%	16%	17%	16%	16%	15%
1-2 yrs	33%	34%	34%	33%	34%	33%
3-5 yrs	52%	50%	49%	51%	50%	52%
Missing	0%	0%	0%	0%	0%	0%
Geographic Location						
Rural	44%	18%	19%	35%	25%	15%
Urban	56%	82%	81%	65%	73%	85%
Missing	0%	0%	0%	0%	2%	0%
Race/Ethnicity						
White, non-Hispanic	31%	34%	50%	22%	38%	36%
Black, non-Hispanic	3%	41%	29%	2%	33%	7%
Asian, non-Hispanic	5%	2%	1%	1%	2%	3%
AIAN, non-Hispanic	35%	0%	1%	14%	1%	3%
Hawaiian/Pacific Islander	5%	0%	0%	0%	0%	3%
Multiracial, non-Hispanic	8%	0%	0%	0%	5%	2%
Hispanic, all races	3%	23%	9%	59%	20%	26%
non-Hispanic, race unknown	0%	0%	0%	0%	0%	0%
Missing	10%	0%	10%	2%	1%	19%
Sex						
Female	48%	49%	49%	49%	49%	49%
Male	52%	51%	51%	51%	51%	51%
Missing	0%	0%	0%	0%	0%	0%
Primary Language						
English	0%	96%	0%	15%	92%	32%
Spanish	0%	4%	0%	0%	8%	4%
Other	0%	0%	0%	0%	0%	0%
Missing	100%	0%	100%	85%	0%	0%

Appendix 2: Critical Data Element Quality Assessment

Data quality was assessed through two methods: using the CMS T-MSIS Data Quality Atlas and independent assessments of missing data and data quality for selected fields. The Medicaid and CHIP Business Information Solutions (MACBIS) conducted data quality assessments of T-MSIS enrollment, claims, expenditures and service use for each state and for each year and data release. The findings of these assessments are summarized in the online Data Quality Atlas, which assigns one of five values: low concern, medium concern, high concern, unusable and unclassified. DQA data quality assessments expand on those in the CMS Data Quality Atlas by conducting more in-depth evaluations of missing and invalid values of specific variables used to calculate DQA measures with a particular focus on dental claims quality assessments.

Data Quality Assessments for Critical Data Elements from State Medicaid/CHIP Programs, CY2019

	AK	DE	MI	NM	NC	WA
Data Quality Atlas						
Age	LC	LC	LC	LC	LC	LC
Medicaid/CHIP Enrollment	LC	LC	LC	LC	LC	LC
Claims Volume - Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Service Users - Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Procedure Codes - Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Diagnosis Codes – Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Additional Checks						
Dental Claims Volume	LC	LC	LC	LC	LC	LC
Beneficiary ID	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Dental Procedure Codes - CDT (% invalid)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rendering Provider Taxonomy for CDT Codes	0.0%	0.1%	0.0%	0.0%	0.2%	0.0%

Data Quality Assessments for Critical Data Elements from State Medicaid/CHIP Programs, CY2018

	AK	DE	MI	NM	NC	WA
Data Quality Atlas						
Age	LC	LC	LC	LC	LC	LC
Medicaid/CHIP Enrollment	LC	LC	LC	LC	LC	LC
Claims Volume - Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Service Users - Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Procedure Codes - Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Diagnosis Codes – Other Services (Outpatient)	LC	LC	LC	LC	LC	LC
Additional Checks						
Dental Claims Volume	LC	LC	LC	LC	LC	LC
Beneficiary ID	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Dental Procedure Codes - CDT (% invalid)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Rendering Provider Taxonomy for CDT Codes	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%

Appendix 3: DQA Measure Specifications

DRAFT DQA Measure Specification Sheet

DQA Measure Technical Specifications: Administrative Claims-Based Measures

Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit

Description: Percentage of enrolled children aged 6 months through 5 years who received a comprehensive or periodic oral evaluation within 6 months following a medical preventive service visit
Numerator: Unduplicated number of children who received a comprehensive or periodic oral evaluation as a dental service within 6 months following a medical preventive service
Denominator: Unduplicated number of enrolled children aged 6 months through 5 years with a medical preventive service visit
Rate: NUM/DEN

Rationale: Dental caries is the most common chronic disease in children in the United States (1). Almost one-fourth of children aged 2-5 years old and 34% of 2-5 year-olds living in poverty in the United States have dental caries (2). Identifying caries early is important to reverse the disease process, prevent progression of caries, and reduce incidence of future lesions. The American Academy of Pediatrics, American Academy of Pediatric Dentistry, American Dental Association, and American Public Health Association all recommend that children have a dental visit by age 1 to allow for timely prevention and identification of dental disease and to enable more conservative approaches to dental caries prevention and management (3). Efforts to reduce the incidence of early childhood caries and to catch disease early not only reduce adverse consequences of caries in early childhood (i.e., pain, problems with eating and sleeping, exacerbation of disease that leads to emergency department visits and hospitalizations), but also establish the foundation for better oral health in the future. In early childhood, children are more likely to have a visit with a medical provider than a dental provider. Among Medicaid-enrolled children, 79% of 1–2-year-olds had a medical visit in federal fiscal year 2021 compared with 26% who had a dental visit. Among 3–5-year-olds, 63% had a medical visit and 49% had a dental visit (4). The high rates of medical visits in early childhood represent an opportunity to connect children accessing the medical system to dental care. The AAP notes the importance of establishing a dental home in early childhood through medical-dental coordination in addition to conducting oral health screenings and providing basic preventive services and anticipatory guidance within medical settings (3).

(1) Centers for Disease Control and Prevention. Children's Oral Health. Available at: https://www.cdc.gov/oralhealth/basics/childrens-oral-health/index.htm. Accessed March 23, 2024.
(2) Centers for Disease Control and Prevention. Oral Health Surveillance Report, 2019: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016. Atlanta, GA: Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. Accessed March 29, 2024, https://www.cdc.gov/oralhealth/publications/OHSR-2019-index.html.
(3) Krol DM, Whelan K; American Academy of Pediatrics Section on Oral Health. Maintaining and Improving the Oral Health of Young Children. Pediatrics. 2023 Jan 1;151(1):e2022060417. doi: 10.1542/peds.2022-060417. PMID: 36530159. Accessed March 23, 2024.
(4) Centers for Medicare and Medicaid Services. 2023. "Early and Periodic Screening, Diagnosis, & Treatment" Annual EPSDT Reporting Using the Form CMS-415, FY 2021 National Data. Accessed March 23, 2024.

AHRQ Domain: Process[ii]

Institute of Medicine Aim: Equity, Effectiveness

Level of Aggregation: Health Plan/Program

Improvement Noted As: A higher score indicates better quality.

Data Required: Enrollment and claims data; two years. 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:

a. What is the percentage of children aged 6 months through 5 years who received a comprehensive or periodic oral evaluation as a dental service within 6 months of a medical preventive service visit?
b. Over time, does the percentage of children aged 6 months through 5 years who receive a comprehensive or periodic oral evaluation within 6 months of a medical preventive service visit stay stable, increase, or decrease?

Applicable Stratification Variables

1. Age: <1; 1-2; 3-5

Measure Limitations:

Due to the limitations of claims data, this measure cannot identify causal relationships: i.e., the measure cannot confirm that a child had a dental visit because of a referral by a medical provider. Likewise, while improvement on the measure may indicate an increased probability of children having an ongoing care relationship with a dental provider, the measure cannot confirm that an ongoing dental care relationship has been established. However, observing trends over time may contribute to assessments of the effectiveness of improvement efforts focused on improving referral rates to dental care and follow-through on those referrals.

[ii] **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. Measure Domain Definitions. Available at: https://www.ahrq.gov/gam/summaries/domain-definitions/index.html. Accessed March 23, 2024.

Early Childhood Dental Oral Evaluation Following Medical Preventive Service Visit Calculation

Reporting year: The reporting year is the calendar year for which performance is being measured.

Time frame for identifying index medical preventive service visit:
June 1 of year prior to reporting year through July 31 of reporting year.

Time frame for identifying oral evaluation: 6-month period following the index medical visit

1. Check if subject received a **medical preventive service visit** between July 1 of the year prior to the reporting year and June 30 of the reporting year:
    a. If [PROCEDURE CODE] = any code in Table 1, AND
    b. [JULY 1 OF PRIOR YEAR] <= [PROCEDURE CODE DATE] <= [JUNE 30 OF REPORTING YEAR]
    c. If both a AND b are met, then proceed to next step.
    d. If either a OR b is NOT met, then STOP processing. This subject is not included in the denominator.

    Note: If a child had more than one medical preventive service visit, select the most recent visit (occurring between July 1, Prior Year and June 30, Reporting Year) as the index visit.

2. Check if the subject meets **age criterion** on date of index medical preventive service visit:[iii]
    a. If subject is >6 months (180 days) and <6 years (2,191 days) on date of index medical preventive service visit, 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 is not included in the denominator.

    Reporting note: Age stratifications will be based on subject's age on date of medical preventive service visit.

3. Check if subject meets **enrollment criteria**:[iv]
    a. If subject is enrolled on date of index medical preventive service visit, AND
    b. If subject is continuously enrolled for at least 180 days following the index medical preventive service visit. (**Note:** For programs/plans that verify enrollment on a monthly basis, the continuous enrollment criteria should include the month in which the index medical preventive service visit occurred AND 6 months after the index medical preventive service visit.) AND
    c. If subject is enrolled at any time during the reporting year.
    d. If all a **AND** b **AND** c are met, then **include in initial population (denominator before exclusions);** proceed to next step.
    e. If any of a **OR** b **OR** c is NOT met, then STOP processing. This subject is not included in the denominator.

[iii] **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.

YOU NOW HAVE THE INITIIAL POPULATION (IP) OF SUBJECTS IN THE DENOMINATOR BEFORE EXCLUSIONS: All subjects who meet age and enrollment criteria and had a medical preventive service visit

4. **EXCLUSION:** Check if subject qualifies for an exclusion form the denominator because subject had a comprehensive or periodic oral evaluation as a dental service during the 180 days before the index medical preventive service visit:
   a. If [CDT CODE] = D0120 or D0150 or D0145, AND
   b. If [RENDERING PROVIDER TAXONOMY] code = any of the NUCC maintained Provider Taxonomy Codes in Table 2 below,[v] AND
   c. [MEDICAL PREVENTIVE SERVICE DATE – CDT CODE DATE] <=180 DAYS
   d. If all a **AND** b **AND** c are met, then **exclude this subject from the denominator.**
   e. If any of a **OR** b **OR** c is NOT met, then **retain this subject in the denominator**; proceed to next step.

YOU NOW HAVE THE DENOMINATOR (DEN) AFTER EXCLUSIONS: All subjects who meet age and enrollment criteria, had a medical preventive service visit, and did NOT have an oral evaluation in the 6 months before the medical preventive service visit.

5. Check if subject received an oral evaluation as a dental service within 6 months of the index medical preventive service visit:
   a. If [CDT CODE] = D0120 or D0150 or D0145, AND
   b. If [RENDERING PROVIDER TAXONOMY] code = any of the NUCC maintained Provider Taxonomy Codes in Table 2 below,[v] AND
   c. If [CDT CODE DATE – MEDICAL PREVENTIVE SERVICE DATE] <=180 DAYS.
   d. If all a **AND** b **AND** c are met, then **include in numerator;** proceed to next step.
   e. If any of a **OR** b **OR** c is NOT met, then STOP processing. This subject is included in the denominator, but is not 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 2 should not be included in the numerator.

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

6. Report
   a. Unduplicated number of subjects in initial population of denominator before exclusions (IP)
   b. Number of subjects excluded (EXC)
   c. Unduplicated number of subjects in denominator after exclusions (DEN=IP-EXC)
   d. Unduplicated number of subjects in numerator (NUM)
   e. Measure rate (NUM/DEN)
   f. Rate stratified by age

[v] **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: Codes to Identify Medical Preventive Service Visits for Children

CPT	**99381-99385**	**Initial comprehensive preventive medicine evaluation and management of an individual including an age and gender appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of laboratory/diagnostic procedures, new patient; infant**
CPT	99381	age younger than 1 year
CPT	99382	age 1 through 4 years
CPT	99383	age 5 through 11 years
CPT	**99391-99395**	**Periodic comprehensive preventive medicine re-evaluation and management of an individual, including an age- and gender-appropriate history, examination, counseling/anticipatory guidance/risk factor reduction interventions, and the ordering of appropriate immunizations, laboratory/diagnostic procedures for an established patient**
CPT	99391	age younger than 1 year
CPT	99392	age 1 through 4 years
CPT	99393	age 5 through 11 years
ICD-10-CM Diagnosis Codes		
ICD-10-CM	Z00.121	Encounter for routine child health examination with abnormal findings
ICD-10-CM	Z00.129	Encounter for routine child health examination without abnormal findings
ICD10CM	Z76.2	Encounter for health supervision and care of other healthy infant and child
HCPCS Codes		
HCPCs	S0302	Completed early periodic screening diagnosis and treatment (epsdt) service (list in addition to code for appropriate evaluation and management service)
HCPCs	G9964	Patient received at least one well-child visit with a pcp during the performance period

Table 2: 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.

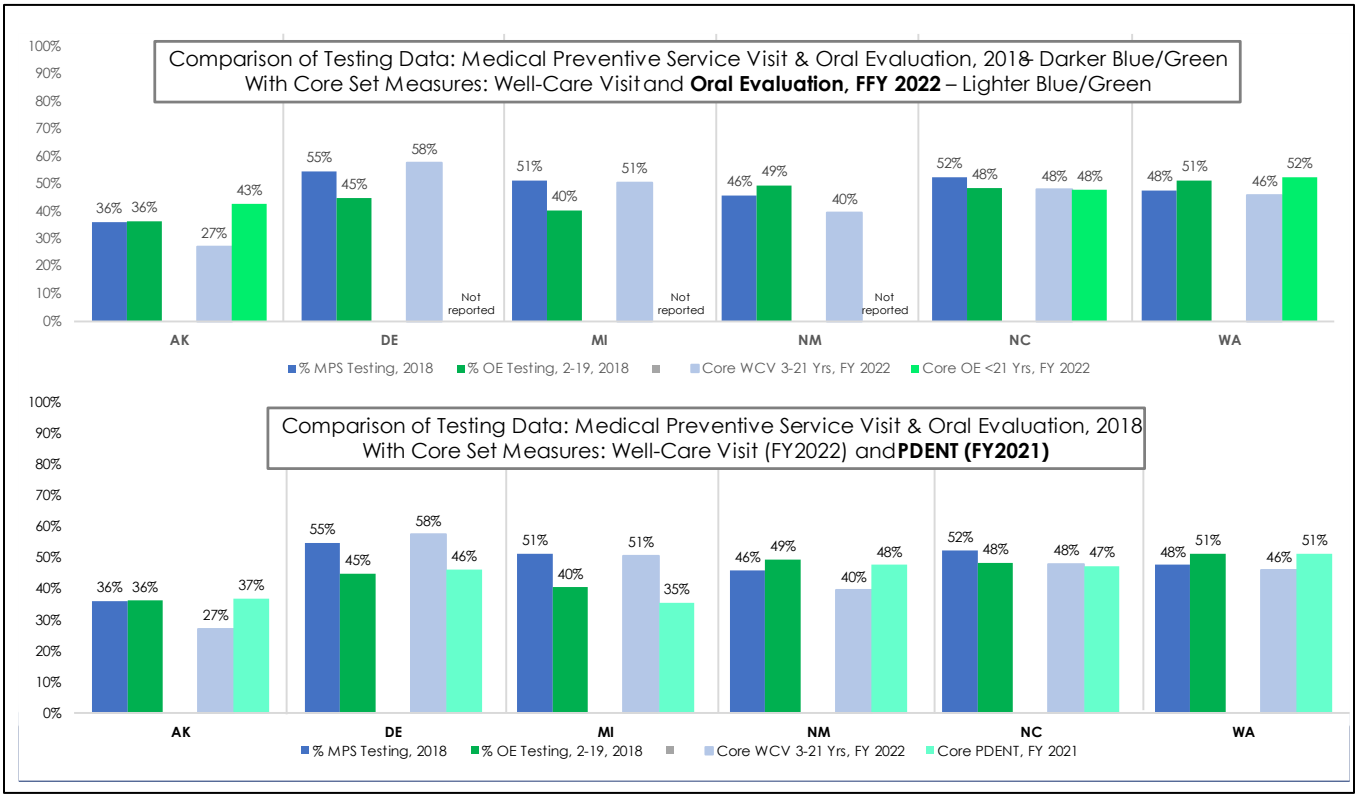
*** Note: Reliability of the measure score depends on the quality of the data elements that are used to calculate the measure. The percentages of missing or invalid data for each data element used to calculate the measure must be investigated prior to measurement. Data elements with high rates of missing or invalid data will adversely affect the subsequent counts that are recorded. For example, subjects who have 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.***

Appendix 4: Comparison of Testing Data to Related Measures in the CMS Core Set of Children's Health Care Quality Measures for Medicaid and CHIP

Medical and Dental Visit Utilization Rates

Testing data assessing utilization rates of medical preventive service visits and oral evaluation with a dental provider were compared to the reported rates for Child Core Set measures Child and Adolescent Well-Care Visits, Oral Evaluation, and PDENT. Comparisons were made for each of the six states included in measure testing. The testing data and the Child Core Set measures reflect different reporting years and have somewhat different age stratifications; consequently, some differences were expected. Overall, however, the values and patterns were generally similar.

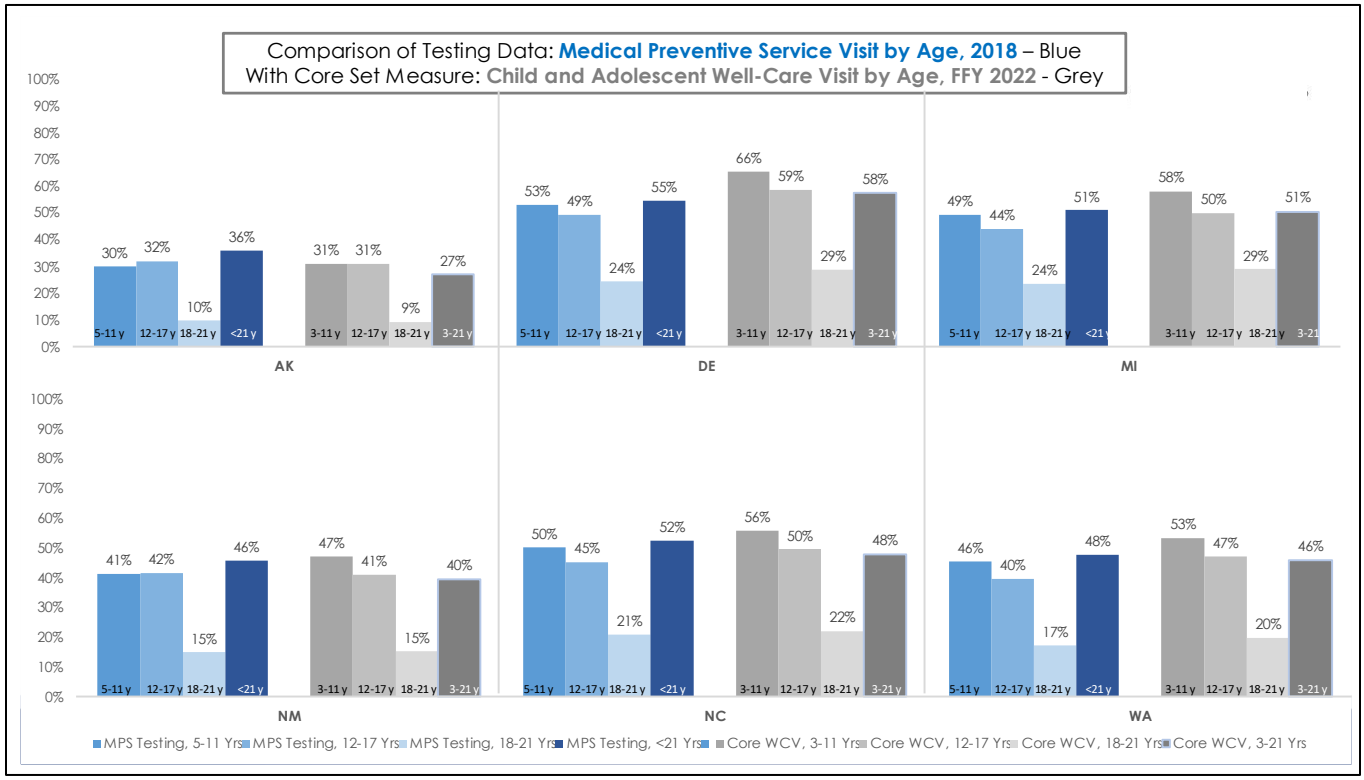
Figure A4.1 Comparison between Testing Data and Child Core Set Measures



Medical Preventive Service Visits by Age

The identification of medical preventive service visits by age in testing data was compared to CMS Child Core Set reporting of the measure Child and Adolescent Well-Care Visits stratified by age. Comparisons were made for each of the six states included in measure testing. The testing data and the Child Core Set measures reflect different reporting years and have somewhat different age stratifications; consequently, some differences were expected. Overall, however, the utilization patterns were consistent.

Figure A4.2 Comparison between Testing Data Identification of Medical Preventive Service Visits by Age with Child Core Set Reporting of Child and Adolescent Well-Care Visits



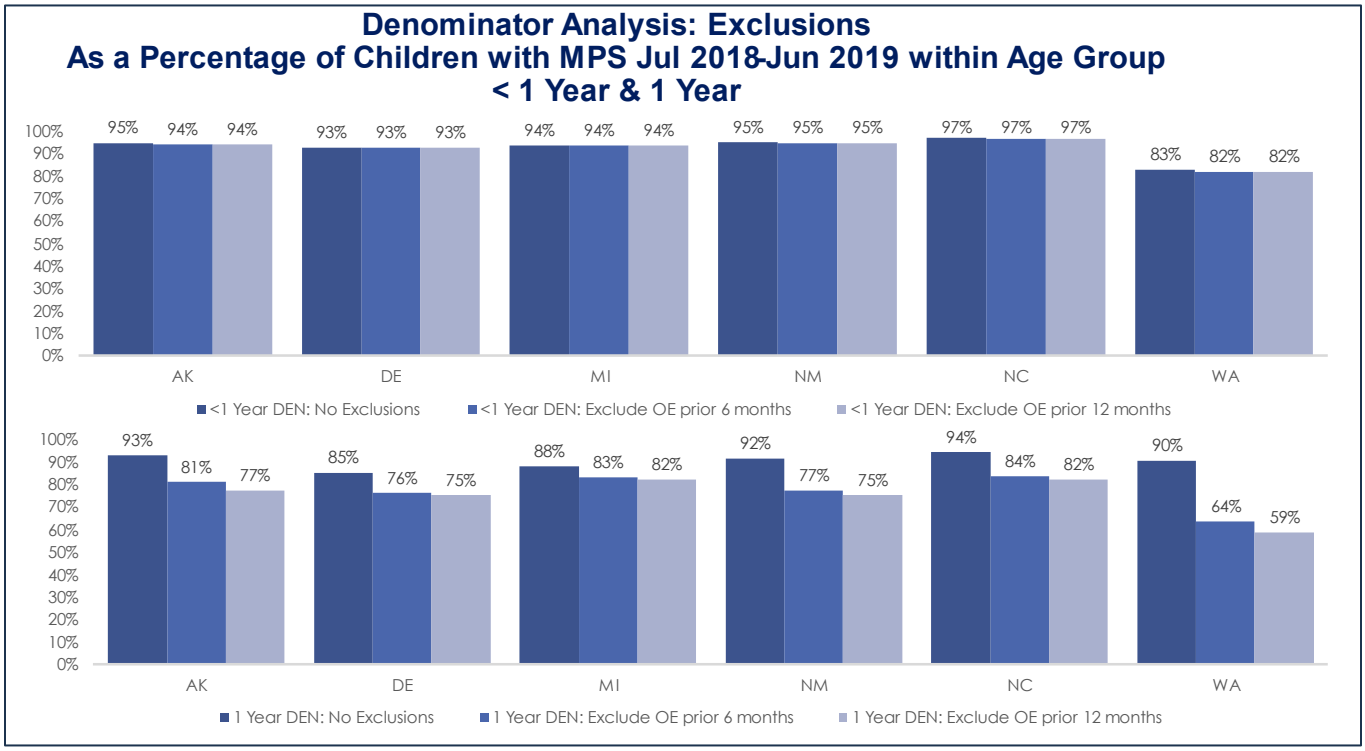
Appendix 5: Evaluation of Exclusions on Denominator and Measure Score by Age

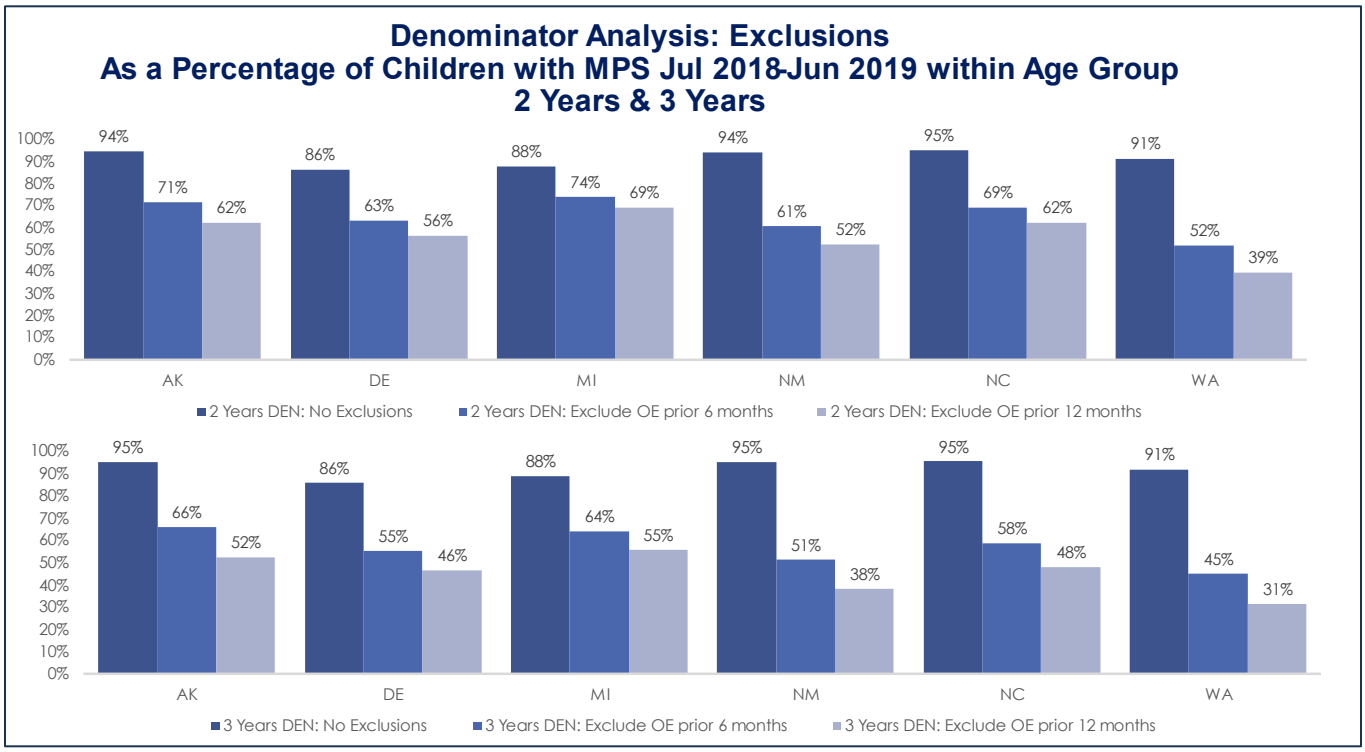
Impact of Exclusions on Children Retained in Denominator as a Percentage of Children who had a Medical Preventive Service Visit, by Age

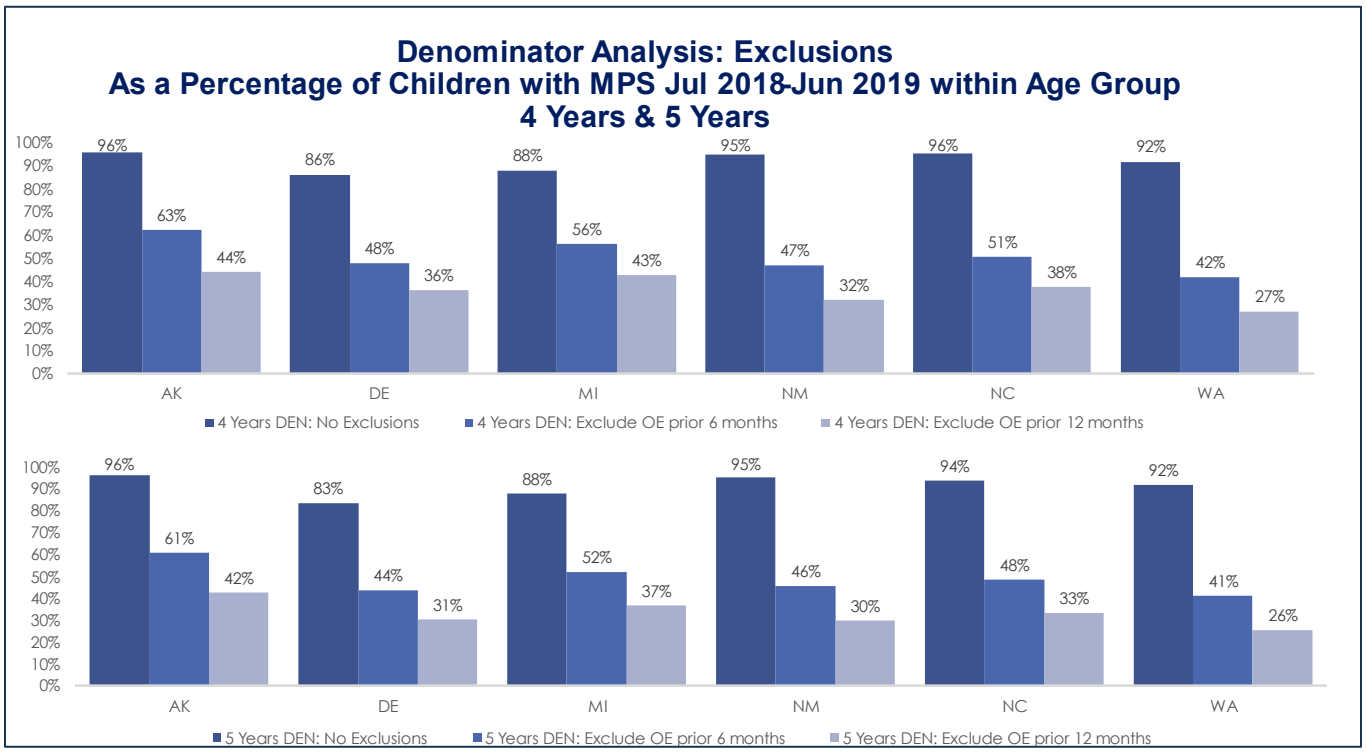
The figures below summarize the results of analyses of excluding from the denominator those children who had an oral evaluation prior to the medical preventive service visit by age. The percentages represent children remaining in the denominator as a percentage of children within the specified age range who had a medical preventive service visit between July 2018 and June 2019.

NOTES:

- **DEN: No Exclusions** represents children with a medical preventive service (MPS) visit between July 2018 and June 2018 who meet the measure's denominator age and enrollment criteria without any exclusions.
- **DEN: Exclude OE prior 6 months** represents the subset of children in the denominator without exclusions who did not have an oral evaluation in the 180 days prior to the MPS; that is, children with an oral evaluation within the 180 days before the MPS were excluded.
- **DEN: Exclude OE prior 12 months** represents the subset of children in the denominator without exclusions who did not have an oral evaluation in the 365 days prior to the MPS; that is, children with an oral evaluation within 365 days before the MPS were excluded.

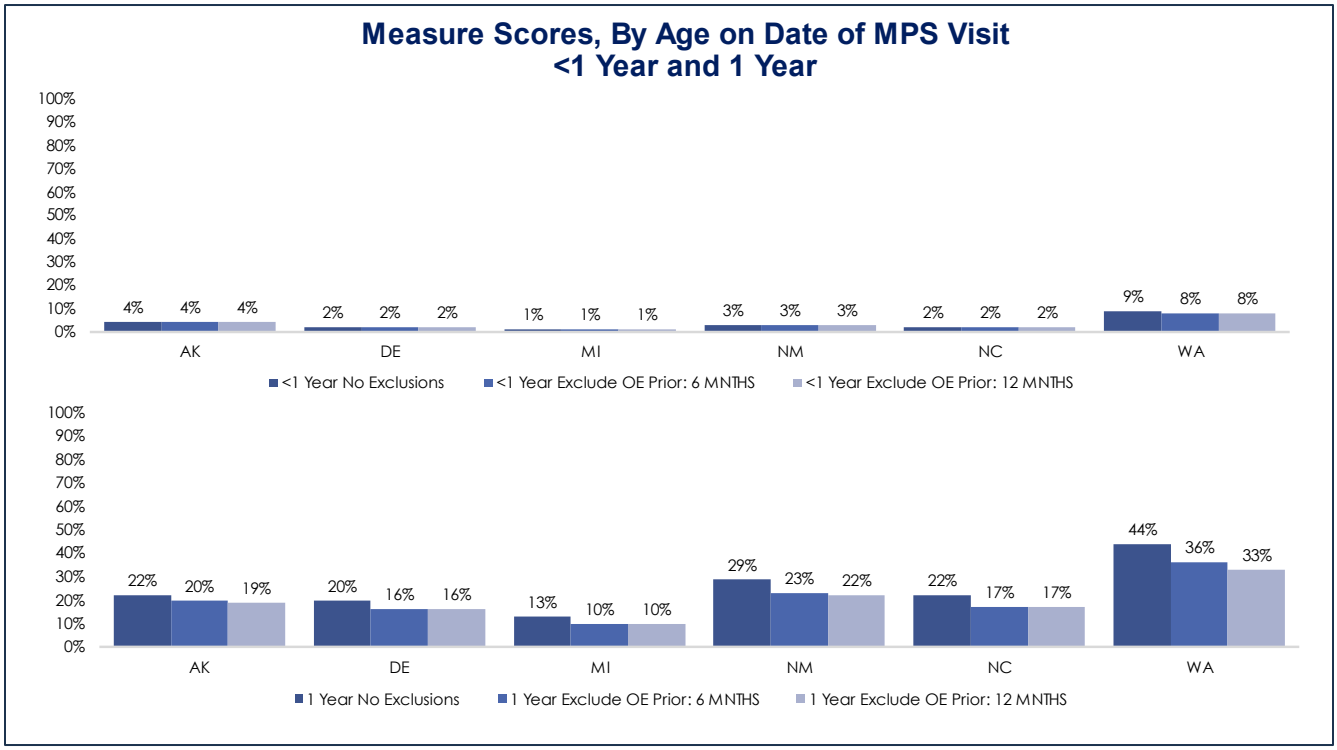


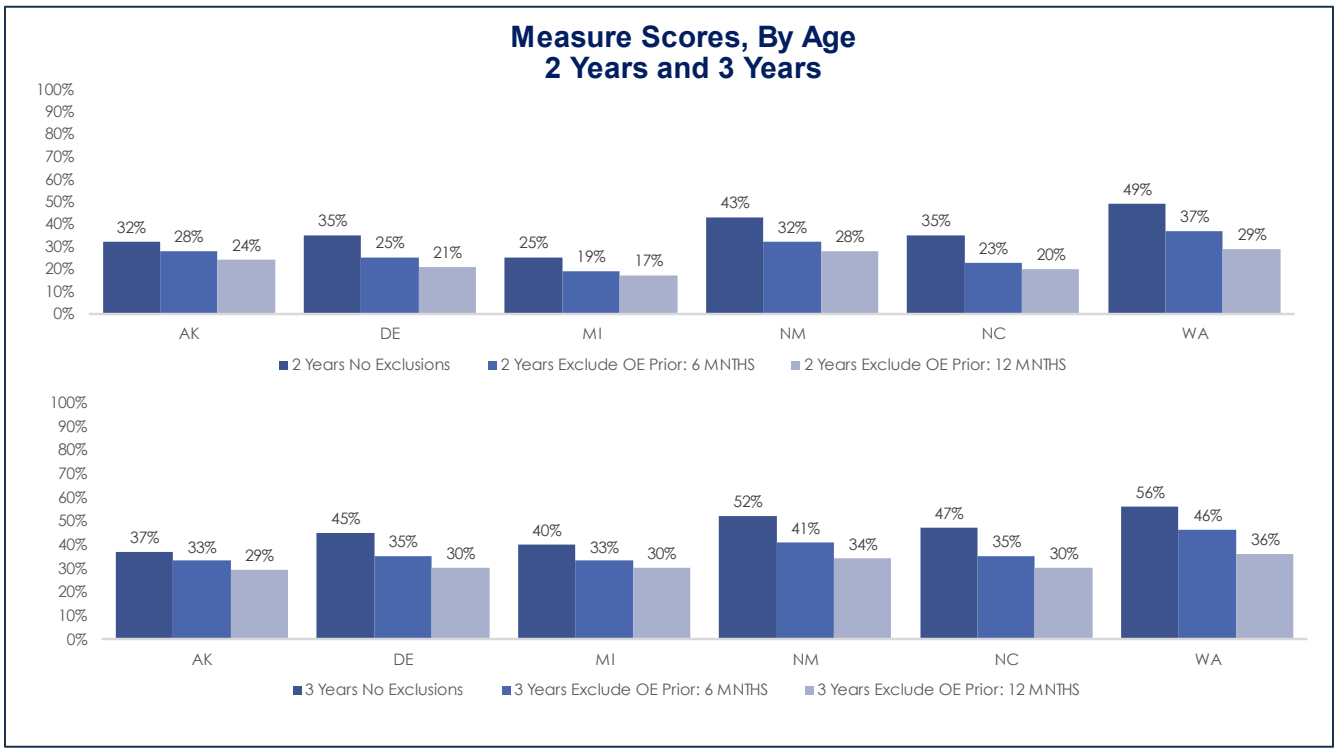

Denominator Analysis: Exclusions
As a Percentage of Children with MPS Jul 2018-Jun 2019 within Age Group
2 Years & 3 Years
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
94%
71%
62%
86%
63%
56%
88%
74%
69%
94%
61%
52%
95%
69%
62%
91%
52%
39%
AK
DE
MI
NM
NC
WA
2 Years DEN: No Exclusions
2 Years DEN: Exclude OE prior 6 months
2 Years DEN: Exclude OE prior 12 months
95%
66%
52%
86%
55%
46%
88%
64%
55%
95%
51%
38%
95%
58%
48%
91%
45%
31%
3 Years DEN: No Exclusions
3 Years DEN: Exclude OE prior 6 months
3 Years DEN: Exclude OE prior 12 months

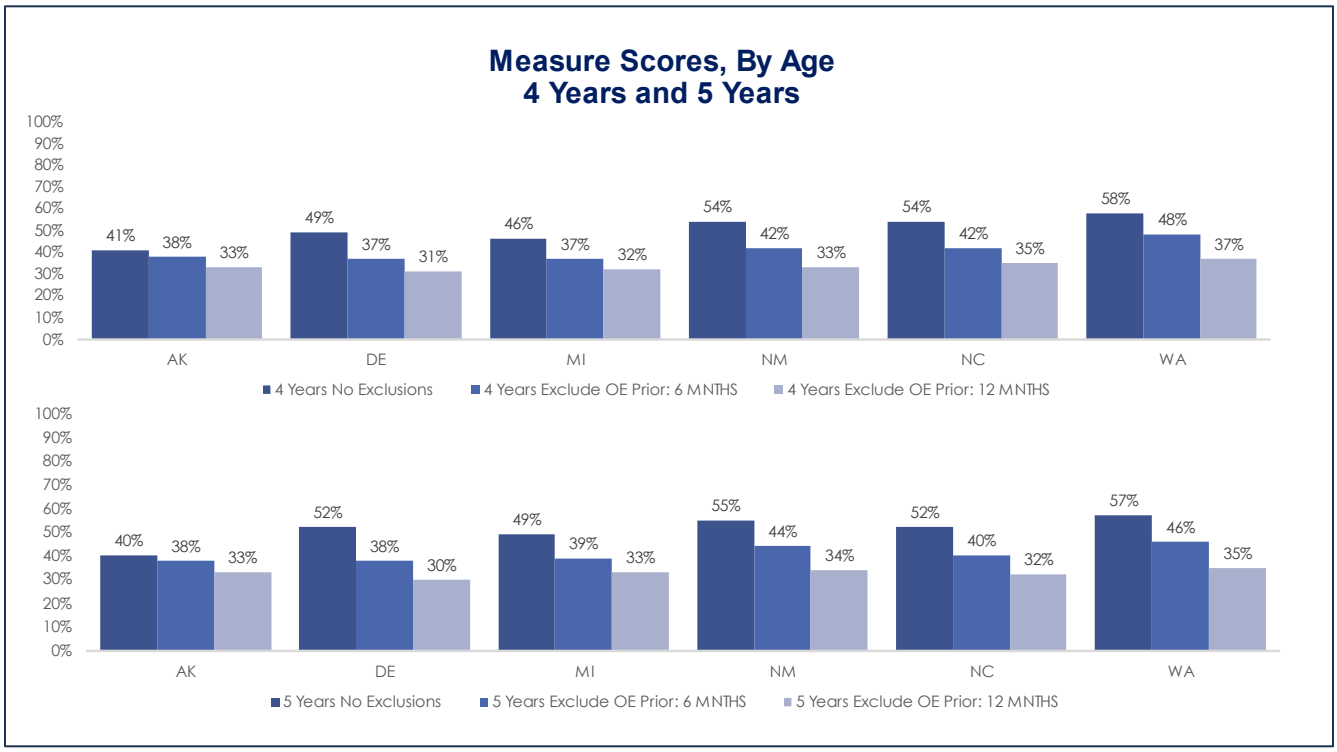

Denominator Analysis: Exclusions
As a Percentage of Children with MPS Jul 2018-Jun 2019 within Age Group
4 Years & 5 Years
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
96%
63%
44%
86%
48%
36%
88%
56%
43%
95%
47%
32%
96%
51%
38%
92%
42%
27%
AK
DE
MI
NM
NC
WA
4 Years DEN: No Exclusions
4 Years DEN: Exclude OE prior 6 months
4 Years DEN: Exclude OE prior 12 months
96%
61%
42%
83%
44%
31%
88%
52%
37%
95%
46%
30%
94%
48%
33%
92%
41%
26%
5 Years DEN: No Exclusions
5 Years DEN: Exclude OE prior 6 months
5 Years DEN: Exclude OE prior 12 months

Impact of Exclusions on Measure Scores, by Age

The figures below summarize measure score impacts of excluding from the denominator those children who had an oral evaluation prior to the medical preventive service visit by age.






Measure Scores, By Age
4 Years and 5 Years
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
41%
38%
33%
49%
37%
31%
46%
37%
32%
54%
42%
33%
54%
42%
35%
58%
48%
37%
AK
DE
MI
NM
NC
WA
4 Years No Exclusions
4 Years Exclude OE Prior: 6 MNTHS
4 Years Exclude OE Prior: 12 MNTHS
40%
38%
33%
52%
38%
30%
49%
39%
33%
55%
44%
34%
52%
40%
32%
57%
46%
35%
5 Years No Exclusions
5 Years Exclude OE Prior: 6 MNTHS
5 Years Exclude OE Prior: 12 MNTHS

End Notes

1. Centers for Disease Control and Prevention. Children's Oral Health. Accessed March 29, 2024, https://www.cdc.gov/oralhealth/basics/childrens-oral-health/
2. Centers for Disease Control and Prevention. Oral Health Surveillance Report: Trends in Dental Caries and Sealants, Tooth Retention, and Edentulism, United States, 1999–2004 to 2011–2016. Updated December 9, 2021. Accessed March 29, 2024, https://www.cdc.gov/oralhealth/publications/OHSR-2019-index.html
3. Krol DM, Whelan K, Section On Oral H. Maintaining and Improving the Oral Health of Young Children. *Pediatrics*. Jan 1 2023;151(1)doi:10.1542/peds.2022-060417
4. Centers for Medicare & Medicaid Services. Early and Periodic Screening, Diagnosis, & Treatment: FY 2021 National Data. Accessed March 29, 2024, https://www.medicaid.gov/medicaid/benefits/early-and-periodic-screening-diagnostic-and-treatment/index.html
5. Children's Health Care Quality Measures. 2024. Available at: https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/adult-and-child-health-care-quality-measures/childrens-health-care-quality-measures/index.html).
6. World Health Organization. Ending Childhood Dental Caries: WHO Implementation Manual. Accessed March 31, 2024, https://www.who.int/publications/i/item/9789240000056
7. American Academy of Pediatric Dentistry. Policy on Early Childhood Caries (ECC): Consequences and Preventive Strategies. The Reference Manual of Pediatric Dentistry. . Accessed March 31, 2024, https://www.aapd.org/media/policies_guidelines/p_eccclassifications.pdf