



# Dental Metrics 2018 and Beyond



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# State of Dental Metrics

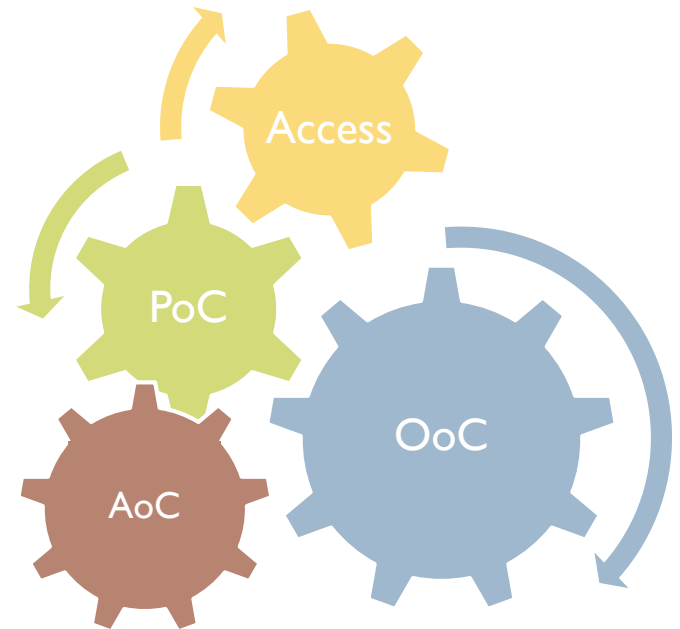
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- ▶ Limited availability of clear specifications
- ▶ Lack of standardization in measurement, with many duplicates
- ▶ Limited evidence to support many of the measures currently available
- ▶ Limited measurement of all aspects of care
- ▶ Lack of organized system relating disease risk to diagnostic measures
- ▶ Limited availability of measures of patient safety
- ▶ Limited measures across multiple care delivery systems including medical, dental and public health
- ▶ Limited use of Dental diagnostic codes (SNODENT)



# State of Dental Metrics

- ▶ **Access to Care:** Receipt of a comprehensive or periodic oral evaluation and continuity of care over time are indicators, or the receipt of timely and appropriate care.
- ▶ **Process of Care (PoC):** Receipt of professionally applied fluoride and sealants are example measures – measures that “are supported by evidence that the clinical process” (e.g., fluoride application or sealant placement) “has led to improved outcomes”(e.g., reduction in caries).
- ▶ **Appropriateness of Care (AoC):** evidence-based, risk informed personalized care delivery – right care, right time, right provider
- ▶ **Outcome of Care: (OoC)** Measuring the incidence of new caries is an example – “the health state of a patient resulting from health care.”



Care Goal: Reduce Caries Incidence

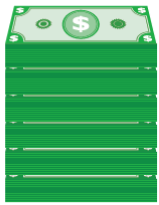
Access: Oral  
Evaluation/  
Continuity

Process -  
Prevention:  
Fluoride

Process -  
Prevention:  
Sealants

Outcome:  
New Caries

# The (Untapped) Value Proposition



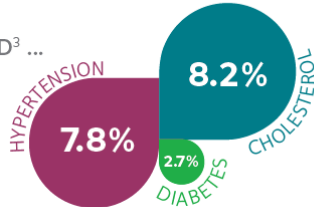
**\$153**  
BILLION

in lost productivity each year due to chronic disease<sup>1</sup>

**27**  
MILLION  
PEOPLE

visit a dentist and not a physician each year<sup>2</sup>

RATES OF  
UNDIAGNOSED<sup>3</sup> ...



SCREENING FOR CHRONIC DISEASES IN DENTAL OFFICES COULD REDUCE U.S. HEALTH CARE COSTS BY ...



up to  
**\$102.6**  
MILLION per year

OR

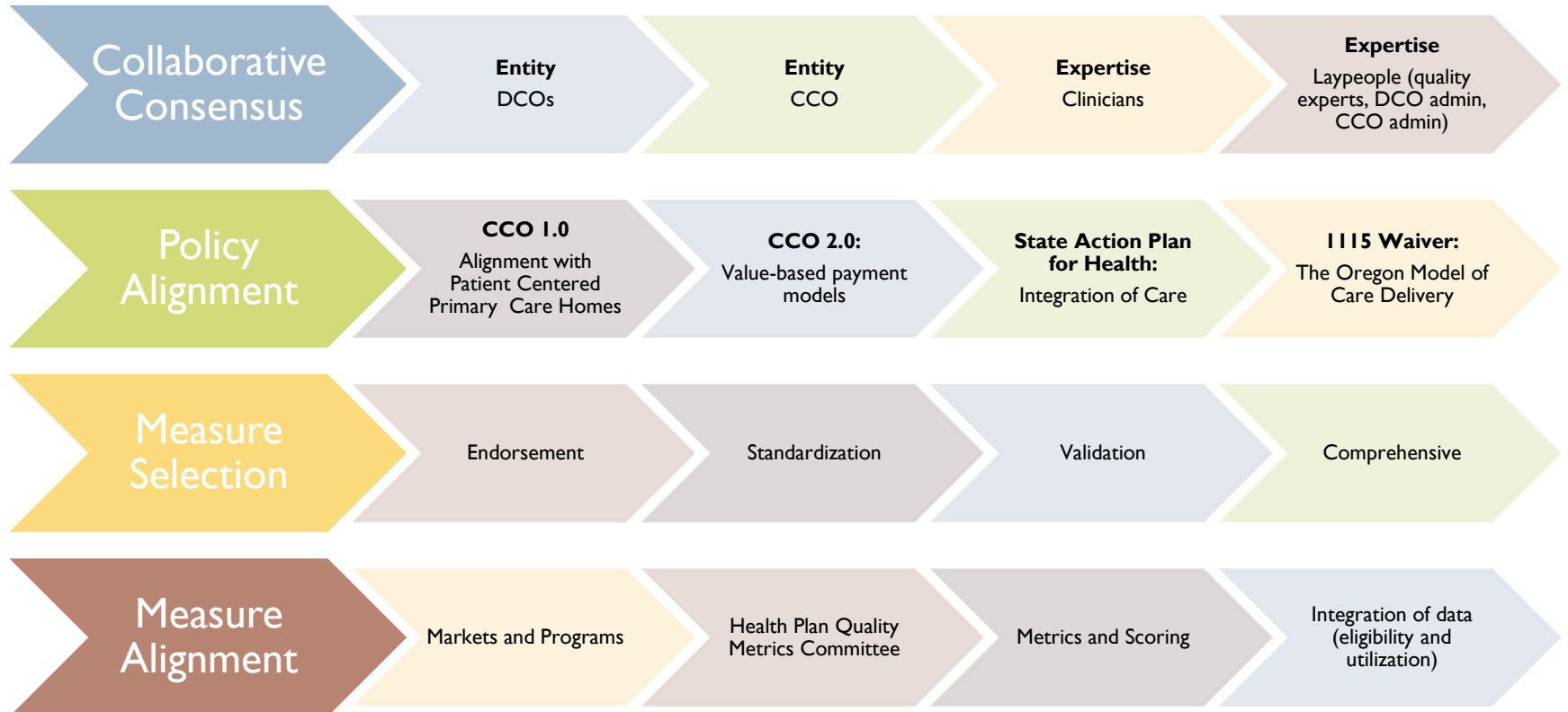


up to  
**\$32.72**  
per person screened<sup>4</sup>

	United Concordia / Highmark	Cigna	Aetna	UnitedHealth
<b>Condition</b>	Type 2 diabetes CAD CVD Rheumatoid arthritis Pregnancy	Diabetes Heart disease Stroke	Diabetes Cardiovascular disease Pregnancy	Diabetes Asthma CHF CAD COPD Chronic kidney / renal failure
<b>Data Source</b>	Claims data from 338,891 individuals with at least one of the five systemic conditions and evidence of periodontal disease	Claims data from 10,634 patients (5,317 each for the Study and Control groups)	Aetna's Dental Medical Integration Program	130,546 UnitedHealthcare commercial dental and medical members
<b>Time Period</b>	2005-2009	2009-2011	2010-2012	2008-2011
<b>Medical Cost Reduction</b>	Annual reduction with periodontal treatment (2006-2009): Diabetes: \$2,840 (40.2%) CAD: \$1,090 (10.7%) CVD: \$5,681 (40.9%) Rheumatoid arthritis: \$581 (6.3%)	Annual reduction with periodontal treatment in the final year: Diabetes: \$1,292 (27.6%) Heart disease: \$2,183 (25.4%) Stroke: \$2,831 (34.7%)	Reduced medical claim costs by an average of 17%	Annual reduction* with periodontal treatment in 2010 (split "not compliant" and "compliant" with disease management) Diabetes: <u>\$3,239 / \$1,515</u> Asthma: \$963 / \$114 CHF: \$11,663 / \$12,892 CAD: \$5,743 / \$4,231 COPD: \$2,171 / \$2,879 Chronic kidney / renal failure: \$14,034 / \$8,095

# CCO Oregon Dental Workgroup

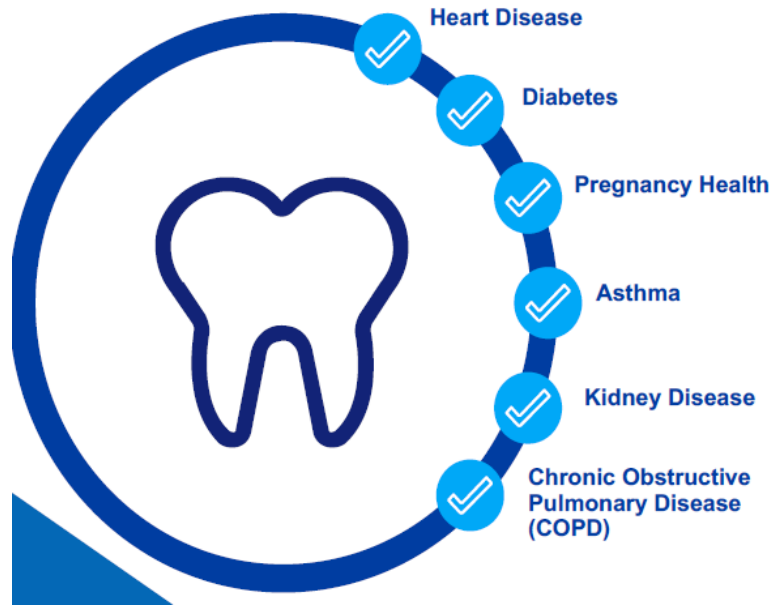
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# Seizing the Opportunity

## Consider the remarkable link between dental and overall health.

Oral health is connected to costs and complications of many conditions.



People with periodontal disease are almost twice as likely to have **heart disease**.<sup>1</sup>

People with **diabetes** are more likely to have gum disease, making it difficult to stabilize blood sugar levels. Treating gum disease can have a positive impact on blood glucose.<sup>2,3</sup>

**Pregnant** women who maintain good oral health see a positive impact on their health and their babies' health.<sup>4,5</sup>

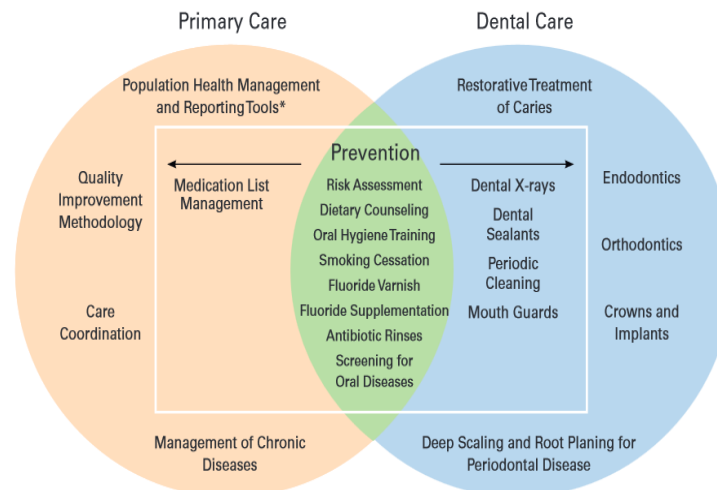
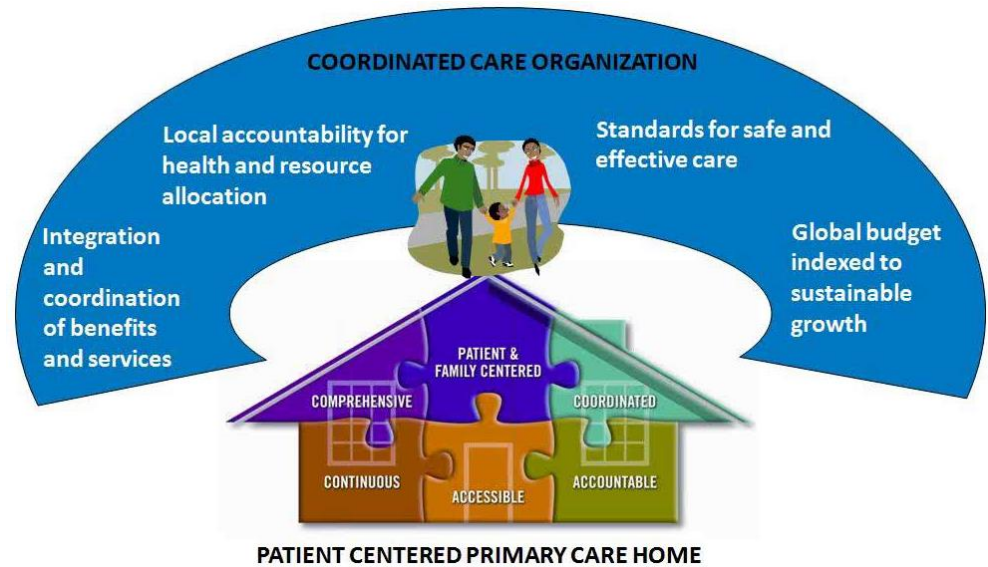
Patients taking **asthma** medication may be at risk of dental caries, dental erosion, periodontal diseases and oral candidiasis, so those on medication should receive preventive dental care.<sup>6</sup>

Gum disease leads to increased inflammation, which can worsen the complications of **kidney disease**. Treating gum disease reduces inflammation, which can reduce the risk of kidney failure.<sup>7</sup>

Periodontal disease may increase the risk for respiratory disease, including **COPD**.<sup>8</sup>



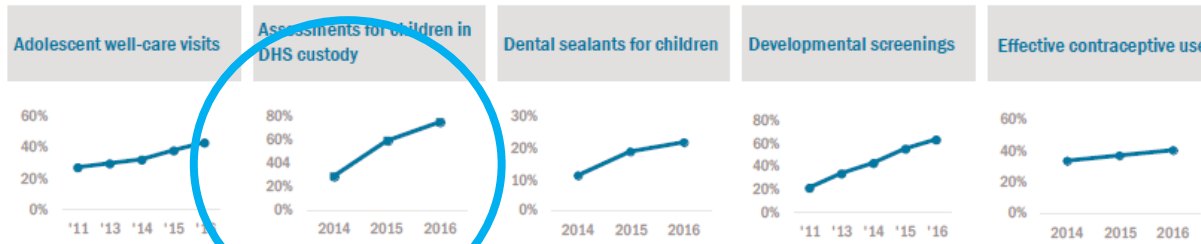
# Infrastructure: Means Opportunity End



\*Including structured EHR data and diagnostic codes, disease registries, and other tools

# Laying the Foundation with Metrics

- **Dental sealants.** The percentage of children ages 6-14 who received a dental sealant on a permanent molar in the past year continued to increase. Statewide performance surpassed the aspirational benchmark in 2016.
- **Developmental screening in the first three years of life.** CCOs continue to make large strides in the percentage of children who are screened for risks of developmental, behavioral, and social delays. In 2011, only 21 percent of young children received an appropriate screening. Since then, the percentage has more than tripled to over 62 percent in 2016.
- **Effective contraceptive use among women at risk of unintended pregnancy.** A new measure in 2015, the percentage of women ages 18-50 who are using an effective contraceptive has increased 19 percent in two years.
- **Health assessments for children in DHS custody.** The percentage of children in foster care who received a mental, physical, and dental health assessment has increased 168 percent in two years.



## Measures to watch:

**Emergency department utilization.** For the first time since 2011, emergency department utilization increased slightly over the previous year. Statewide, the rate of patient visits to the emergency department returned to 2014 levels. However, it is also important to note that emergency department rates remain relatively low overall; the CCO benchmark is the national Medicaid 90th percentile. Moreover, avoidable emergency department utilization (which looks at the rate of patient visits for conditions that could have been more appropriately managed or referred to by a primary care provider) continues to decline. So, while the overall rate of emergency department utilization increased, members continued to use the emergency department for appropriate reasons. OHA will continue to monitor these trends.



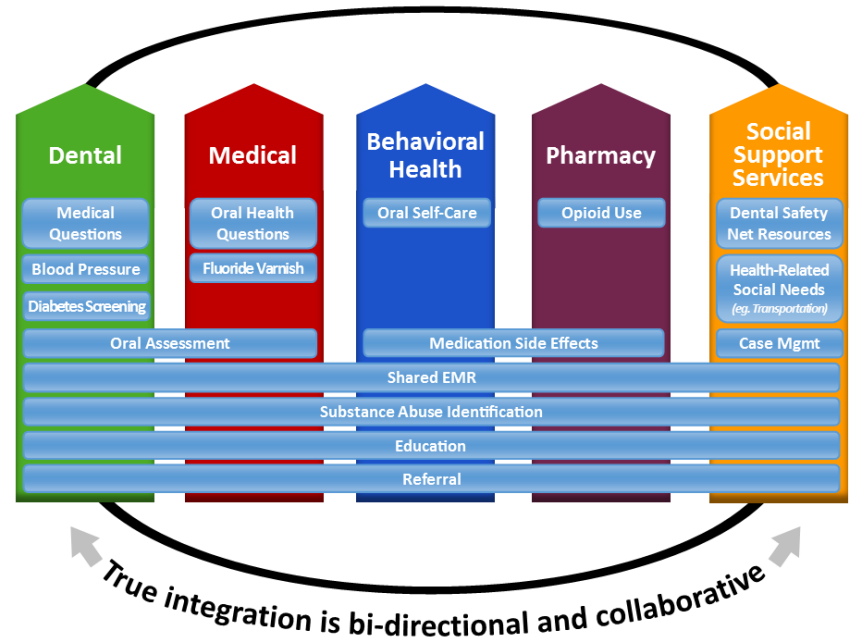


# Metrics as “Coordi(gration)” Vehicle

## 2016 INCENTIVE METRIC PERFORMANCE OVERVIEW

■ CCO achieved BENCHMARK in 2016  
■ CCO achieved IMPROVEMENT TARGET in 2016  
\* Top performing CCO in each measure  
Bolted CCOs earned 100% quality pool  
^ Indicates challenge pool measure

	AllCare	Cascade	Columbia Pac.	Eastern Oregon	FamilyCare	Health Share	IHN	Jackson	PacSource Central	PacSource Gorge	PrimaryHealth	Tillamook	Umpqua	WOH	WCH	Yamhill
Access to care (CAHPS)											*					
Adolescent well-care visits																*
Alcohol and drug misuse screening (SBIRT) 12+ ^													*			
Ambulatory care - ED utilization											*					
Assessments for children in DHS custody											*					
Childhood immunization status									*							
Cigarette smoking prevalence (EHR)						*										
Colorectal cancer screening															*	
Controlling high blood pressure (EHR)															*	
Dental sealants for children												*				
Depression screening and follow up (EHR) ^												*			*	
Developmental screening ^											*					
Diabetes HbA1c poor control (EHR) ^												*				
Effective contraceptive use (ages 18-50)													*			
Follow up after hospitalization for mental illness									*							
Prenatal and postpartum care: Prenatal care								*								
Patient-Centered Primary Care Home (PCPCH) enrollment								*	*							
Satisfaction with care (CAHPS)	*															



# Measures Under Consideration

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Dental sealants for kids

- DQA Measure
- NQF endorsed
- Measure specification need to evolve/improve

Health assessments for kids in foster care

- Transformational
- Shared Responsibility/Zero Sum Game
- Model for hybrid integration measures/Nuts and Bolts

Members receiving preventive dental services

- Pediatric and adult populations as separate denominators
- Pediatric measure NQF endorsed
- Importance of defining the numerator
- Based on elevated risk

Oral health care evaluations for adults with diabetes

- Transformational/Linkable to other measures
- Importance of defining the denominator
- Importance of defining the numerator

Topical fluoride varnish for kids

- DQA Measure for pediatric and adult populations
  - Pediatric measure NQF endorsed
  - Based on elevated risk
  - Differentiating from preventative services measure
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# CCO Oregon 2018 Measure Set(s)

## Recommended Measures: Specification Option(s)

Stratifications	Enrollment Eligibility	Evolving to Risk-based Metrics
<p><b>Population: Pediatric</b></p> <p><b>DQA: age eligibility</b></p> <ul style="list-style-type: none"> <li>Medicaid/CHIP: younger than 21 years               <ul style="list-style-type: none"> <li>0-20 without age bands</li> <li>0-20 with age bands</li> </ul> </li> <li>ACA: younger than 19 years               <ul style="list-style-type: none"> <li>0-18 without age bands</li> <li>0-18 with age bands</li> </ul> </li> </ul> <p><b>Example age bands:</b> &lt;1, 1-2*, 3-5, 6-9, 10-14, 15-18, 19-20</p>	<p><b>Ever Enrolled:</b> all members covered for at least one day during measurement year.</p> <p><b>90-days Continuous Eligibility:</b> no gap on coverage allowed up to the 90 days during measurement year.</p> <p><b>180-days Continuous Eligibility:</b> no gap in coverage allowed up to the 180 days during measurement year.</p> <p><b>365-days Continuous Eligibility:</b> allows for a single gap in coverage (typically between 30-45 days) during measurement year.</p>	<p><b>DQA Elevated risk</b> individuals identified through presence of caries risk assessment findings codes (D0602 and D0603) or presence of CDT codes signifying caries-related treatment using the following approach:</p> <p>a. If subject meets ANY of following criteria, include in denominator:</p> <ol style="list-style-type: none"> <li>subject has at least 3 instances of CDT Codes below in the reporting year <b>OR</b> the three prior years ("look-back" approach); <b>OR</b></li> </ol> <p>D1354 D2393 D2620 D2712 D2790 D2140 D2394 D2630 D2720 D2791 D2150 D2410 D2642 D2721 D2792 D2160 D2420 D2643 D2722 D2794 D2161 D2430 D2644 D2740 D2799 D2330 D2510 D2650 D2750 D2931 D2331 D2520 D2651 D2751 D2932 D2332 D2530 D2652 D2752 D2933 D2335 D2542 D2662 D2780 D2390 D2543 D2663 D2781 D2391 D2544 D2664 D2782 D2392 D2610 D2710 D2783</p>
<p><b>Population: Adult</b></p> <p><b>DQA: age eligibility</b></p> <ul style="list-style-type: none"> <li>18 years as lower bound, consistent with <i>Medicaid Core Set of Adult Health Care Quality Measures</i> and <i>ACA Marketplace Quality Rating System</i></li> <li>Measure specifications between adult and pediatric populations for the same measure concept (e.g. topical fluoride) may be different, by design           <ul style="list-style-type: none"> <li>18+ without age bands</li> <li>18+ with age bands</li> <li>19+ without age bands</li> <li>19+ with age bands</li> <li>21+ without age bands</li> <li>21+ with age bands</li> </ul> </li> </ul> <p><b>Example age bands:</b> 18-20, 21-34, 35-54, 55-64, 65-74, 75-84, 85+</p>		<p>ii. subject has visit with CDT code = (D0602 or D0603) in the reporting year.</p> <p>b. If the subject does not meet either of the above criteria for elevated risk, then STOP processing. This enrollee will not be included in the measure denominator.</p> <p><b>*Strawman Concept for incremental adoption of risk-based metrics*</b></p> <p><b>Justifications:</b></p> <ul style="list-style-type: none"> <li>Number of risk-based DQA metrics</li> <li>Alignment with medical</li> <li>Fit within VBPs</li> <li>Enables stratification</li> <li>Align care coordination and PCPCH</li> </ul>
<p><b>Demographics</b></p> <ul style="list-style-type: none"> <li>Gender</li> <li>Race</li> <li>Ethnicity</li> </ul>		<p><b>Design:</b> to hold harmless plans while evolving measurements towards risk-based design(s)</p> <ul style="list-style-type: none"> <li><b>Baseline:</b> by plan</li> <li><b>Improvement Targets:</b> use Minnesota Method</li> <li><b>Benchmark:</b> all plans, based on national marks</li> </ul>
<p><b>Special Populations</b></p> <ul style="list-style-type: none"> <li>Pregnant Women</li> <li>Disparities-based</li> <li>Equity-based</li> <li>Risk-based (siloeed, integrsted, etc.)</li> </ul>		<p>Three-tier design intended to promote system advancement and alignment in a manner than holds dental plans harmless.</p> <ol style="list-style-type: none"> <li><b>Baseline Plus:</b> improvement target from baseline given status as full adopter of risk level codes and risk-based measures</li> <li><b>Baseline Lite:</b> set the baseline given status as new(er) adoptee of risk level codes and risk-based measures</li> <li><b>Pre-Baseline:</b> not ready to use risk level codes and/or risk-based measures</li> </ol>

# CCO Oregon 2018 Measure Set(s)

## CCO Oregon 2018 Dental Metric Set Children

Metric Name and Vitals	Metric Description	Numerator	Denominator
<b>Evaluating:</b> Utilization <b>Domain:</b> Access/Process <b>Measure:</b> Utilization of Services <b>Source:</b> Dental Quality Alliance, 2018 <b>NQF Endorsed</b>	Percentage of all enrolled children under age 21 who received at least one dental OR oral health service within the reporting year	Unduplicated number of children who received at least one dental OR oral health service	Unduplicated number of all enrolled children under age 21 in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Utilization <b>Domain:</b> Service usage <b>Measure:</b> Preventive Services for Children at Elevated Caries Risk <b>Source:</b> Dental Quality Alliance, 2018	Percentage of enrolled children who are at "elevated" risk (i.e., "moderate" or "high") who received a topical fluoride application and/or sealants as a dental or oral health service within the reporting year	Unduplicated number of children at "elevated" risk (i.e., "moderate" or "high") who received a topical fluoride application and/or sealants as a dental or oral health service	Unduplicated number of enrolled children at "elevated" risk (i.e., "moderate" or "high") in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process <b>Measure:</b> Oral Evaluations <b>Source:</b> Dental Quality Alliance, 2018 <b>NQF Endorsed</b>	Percentage of enrolled children under age 21 who received a comprehensive or periodic oral evaluation within the reporting year	Unduplicated number of children who received a comprehensive or periodic oral evaluation as a dental <b>or oral health</b> service	Unduplicated number of enrolled children under age 21 in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process <b>Measure:</b> Topical Fluoride for Children at Elevated Caries Risk <b>Source:</b> Dental Quality Alliance, 2018 <b>NQF Endorsed</b>	Percentage of enrolled children aged 1–21 years who are at "elevated" risk (i.e., "moderate" or "high") who received at least 2 topical fluoride applications as dental OR oral health services within the reporting year	Unduplicated number of children at "elevated" risk (i.e., "moderate" or "high") who received at least 2 topical fluoride applications as dental OR oral health services	Unduplicated number of enrolled children aged 1–21 years at "elevated" risk (i.e., "moderate" or "high") in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process <b>Measure:</b> Sealants for 6–9-year-old Children at Elevated Risk <b>Source:</b> Dental Quality Alliance, 2018 <b>NQF Endorsed</b>	Percentage of enrolled children in the age category of 6–9 years at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent first molar tooth as a dental OR oral health service within the reporting year	Unduplicated number of all enrolled children age 6–9 years at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent first molar tooth as a dental OR oral health service	Unduplicated number of enrolled children age 6–9 years at "elevated" risk (i.e., "moderate" or "high") in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process <b>Source:</b> Dental Quality Alliance, 2018 <b>Measure:</b> Sealants for 10–14 year-old Children at Elevated Risk <b>NQF Endorsed</b>	Percentage of enrolled children in the age category of 10–14 years at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent second molar tooth within the reporting year	Unduplicated number of enrolled children age 10–14 years at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent second molar tooth as a dental service	Unduplicated number of enrolled children age 10–14 years at "elevated" risk (i.e., "moderate" or "high") in the reporting period  <b>Rate:</b> NUM/DEN



# CCO Oregon 2018 Measure Set(s)

CCO Oregon 2018 Adult Dental Metric Set			
Metric Name and Vitals	Metric Description	Numerator	Denominator
<b>Evaluating:</b> Utilization <b>Domain:</b> Access/Process <b>Measure:</b> Utilization of Services <b>Source:</b> None, hybrid of Dental Quality Alliance, 2018 (for children)	Percentage of all enrolled adults 21 years and older who received at least one dental OR oral health service within the reporting year	Unduplicated number of adults who received at least one dental OR oral health service	Unduplicated number of all enrolled adults aged 21 years and older in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Utilization <b>Domain:</b> Service usage <b>Measure:</b> Preventive Services for Adults at Elevated Caries Risk <b>Source:</b> None, hybrid of Dental Quality Alliance, 2018 (for children)	Percentage of enrolled adults 21 years and older who are at "elevated" risk (i.e., "moderate" or "high") who received a topical fluoride application and/or sealants as a dental or oral health service within the reporting year	Unduplicated number of adults at "elevated" risk (i.e., "moderate" or "high") who received a topical fluoride application and/or sealants as a dental or oral health service	Unduplicated number of enrolled adults aged 21 years and older at "elevated" risk (i.e., "moderate" or "high") in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process <b>Measure:</b> Topical Fluoride for Adults at Elevated Caries Risk <b>Source:</b> Dental Quality Alliance, 2018	Percentage of enrolled adults aged 18 years and older who are at "elevated" risk (i.e., "moderate" or "high") who received at least 2 topical fluoride applications within the reporting year	Unduplicated number of adults at "elevated" risk (i.e., "moderate" or "high") who received at least 2 topical fluoride applications	Unduplicated number of enrolled adults aged 18 and older at "elevated" risk (i.e., "moderate" or "high") in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process <b>Measure:</b> E.D. Follow-up – adult non-traumatic dental issues <b>Source:</b> None, hybrid of Dental Quality Alliance, 2018 (for children)	The percentage of non-traumatic dental issue-related emergency department visits among adults aged 21 years and older in the reporting period for which the member visited a dentist within (a) 7 days; (b) 30 days <b>[*and (c) 60 days]</b> of the ED visit  <i>*Recommend adding 60 days to preexisting NQF endorsed DQA measure based on another DQA E.D. measure</i>	Number of non-traumatic dental issue-related ED visits in the reporting period for which the member visited a dentist within (a) 7 days; (b) 30 days <b>[*and (c) 60 days]</b> of the ED visit	Number of non-traumatic dental issue-related ED visits for adults aged 21 years and older in the reporting period  <b>Rates:</b> NUM1/DEN, NUM2/DEN, <b>[NUM3/DEN]</b>
<b>Evaluating:</b> Utilization <b>Domain:</b> Service Usage <b>Measure:</b> Care for Adults with Diabetes <b>Source:</b> None, hybrid of Dental Quality Alliance, 2018 (periodontitis vs. diabetes)	Percentage of enrolled adults identified as having diabetes who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation within the reporting year	Unduplicated number of adults who received a comprehensive or periodic oral evaluation or a comprehensive periodontal evaluation  <b>**Periodontal treatment (code set)**</b>	Unduplicated number of enrolled adults identified as having diabetes in the reporting period  <b>Rate:</b> NUM/DEN
<b>Evaluating:</b> Quality of Care <b>Domain:</b> Process/Access/Outcome <b>Measure:</b> Caries Risk Documentation <b>Source:</b> None, hybrid of Dental Quality Alliance, 2018 (for children)	Percentage of enrolled adults 21 years and older who have caries risk documented in the reporting year  <b>* NOTE:</b> This measure is designed for use in quality improvement applications to support quality improvement efforts around caries risk assessment and documentation. This measure is not designed to	Unduplicated number of adults 21 years and older with caries risk documented	Unduplicated number of enrolled adults 21 years and older years in the reporting period  <b>Rate:</b> NUM/DEN