



# ENVIRONMENTAL SCAN

Practice Based Measures

Dental Quality Alliance

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## Background

At its meeting in July, 2015, the Dental Quality Alliance (DQA) noted the significant efforts in quality measurement at the practice level. Multi-site group practices like the Health Partners and Permanente Dental Associates have complex quality measurement programs implemented in their practices. Community Health Centers are showing increasing interest in quality measurement and generating dash boards for their practices to demonstrate and improve quality. Payers are building quality score cards for providers. To advance its role in the field of practice level measures, the DQA conducted this environmental scan to **identify existing oral health performance and quality measure concepts that are in use today.**

## Method

Staff conducted the environmental scan by identifying existing performance and quality measure concepts for both the pediatric and adult populations. Staff began the search by referencing the environmental scan previously done by the DQA<sup>1</sup>. Measure concepts that were clearly specified at programmatic and plan level were eliminated from the search. Following this, Staff conducted a comprehensive internet search that included relevant presentations at various conferences as well as organization's websites like the National Quality Measurement Clearinghouse, National Quality Forum and Health Resources and Services Administration. To complete the scan, staff communicated with practices known to measure quality. The ensuing pages lists all the practice-based measure concepts that have been identified from various sources.

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<sup>1</sup> Dental Quality Alliance. Pediatric Oral Health Quality and Performance Measures: Environmental Scan (2012)  
Accessed: <http://www.ada.org/en/science-research/dental-quality-alliance/dqa-measure-activities>

## Results

The environmental scan resulted in identification of a total of 98 quality measures that are currently in use amongst the various organizations ([Table 1](#)). Some payers also use proprietary quality measures for internal business purposes. These measures were not available for inclusion in this scan. - (1).

Majority of the currently identified measures relate to diagnosis, prevention, oral health status, clinical quality services, care continuity and treatment. There were no measures on care coordination or closing referral loop. Patient satisfaction and overall quality of life were not domains addressed through this scan. Although measures of patient satisfaction and experience with care are extremely important domains of care, such information can only be gleaned from comprehensive surveys. However the Dental Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey and any other surveys on quality of life, patient satisfaction and care experience were not included for reasons that have been previously highlighted in the DQA's Environmental Scan(1).

## Discussion

The scan resulted in several measure concepts that are duplicative across different organizations (e.g. risk assessments, treatment planning, sealant and fluoride placement), lacking information on detailed specification with numerator and denominator description and an excess of process measures rather than more outcome focused measurements. These issues have also been previously identified in the DQA's Environmental Scan.<sup>1</sup> Ensuing paragraphs present these in detail for the DQA to consider when developing a Starter Set for the practice-based measures.

## **Data Sources**

Data for measurement in dentistry is obtained from administrative sources (claims and encounters), from patient records/EHR systems, and through surveys (1). The construct of measures is then dictated by the data available from each of these sources. While administrative data can be valuable for measuring processes and utilization, they lack the level of clinical detail necessary for robust measurement especially at the practice and provider level. Further, data is often limited to beneficiaries in a specific plan and only to patients with coverage. Claims administrative data also lack granularity with regards to the demographic of the patient. "Quality" at a practice/provider level cannot be determined simply by drilling down claims data<sup>2,3</sup>. The need to identify practice-based quality measures computed using structured data from patient records within patient management systems or Electronic Health Records (EHR) data captured within the workflow of the clinical care processes is extremely important.

## **Developing Quality Measures using administrative claims data versus patient record data**

While the reliance on claims-based administrative data has been instrumental in elevating the quality measurement movement, they are often inaccurate reflection of actual and relevant care processes and patient outcomes<sup>4</sup>. Often times, data completeness, coding accuracy and details entered on the often restrictive submitted claim are very commonly encountered issues. There are also instances wherein several other problems that may have been addressed during the encounter may not be included in the claim. Attribution of patient care to the correct health care provider is also a challenge for measurement systems based on claims data. These

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<sup>2</sup> Scholle, SH., Roski, J., Adams, JL., Dunn, DL., Kerr, EA, Dugan, DP., Pillitteri, D., Jensen, RE. Benchmarking Physician Performance: Reliability of Individual and Composite Measures *Am J Manag Care*. 2008 December ; 14(12): 833–838.

<sup>3</sup> Scholle, SH., Roski, J., Dunn, DL., Adams, JL., Pillitteri, D., Dugan, DP., Pawlson, G. Kerr, EA. Availability of Data for Measuring Physician Quality Performance. *Am J Manag Care*. 2009 January ; 15(1): 67–72.

<sup>4</sup> American College of Physicians. EHR-Based Quality Measurement & Reporting: Critical for Meaningful Use and Health Care Improvement. February 2010

challenges can be overcome by using electronic patient records that are considered gold standard in completeness of health information<sup>5</sup>. Patient records data also allows for much more refined information, such as being able to capture charted findings that may not be captured in standard claims data<sup>6</sup>. For example, for the measure assessing use of dental sealants, use of only claims data does not allow exclusions of patient who have all their molars decayed, missing or restored. This can be easily overcome if the measure is computed using all the information captured within the patients record. Thus, simply “re-tooling” measures from one data source to another should not be encouraged. Also comparing measure scores from “similar” measures derived from different data sources may not be appropriate or reliable.

## Conclusion

As depicted by the scan, more emphasis needs to be placed in developing measures that are important, evidence-based, valid, reliable, feasible and usable.

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<sup>5</sup> Fowles JB, Fowler E, Craft C, et al., Comparing Claims Data and Self-Reported Data with the Medical Record for Pap Smear Rates. *Eval Health Prof*, 1997. 20(3): p. 324-42.

<sup>6</sup> Aravamudhan, K. and Herndon, J. Final Report: Dental Electronic Clinical Quality Measures (eCQMs). Dental Quality Alliance, 2014

Table 1: Dental Quality Measures Identified through the Environmental Scan

	<b>Category</b>	<b>Title</b>	<b>Source</b>	<b>Description</b>	<b>Numerator</b>	<b>Denominator</b>	<b>Data Sources<sup>7</sup></b>
1.	Diagnosis	Assessment of Risk	Health Partners <sup>8</sup>	Percentage of exams with risk assessment			Patient Records
2.	Diagnosis	Assessment of Risk	Health Partners	Percentage of exams with caries risk assessment			Patient Records
3.	Diagnosis	Assessment of Risk and Treatment Planning	Health Partners	Percentage of patients at elevated risk with recommended interventions for oral cancer			Patient Records
4.	Diagnosis	Assessment of Risk	Health Partners	Percentage exams with perio risk assessment			Patient Records
5.	Diagnosis	Assessment of Risk and Treatment Planning	Health Partners	Percentage of patient with H/M perio risk with intervention recommendations			Patient Records
6.	Diagnosis	Assessment of Risk and Treatment Planning	Health Partners	Percentage of patient with H/M caries risk with intervention recommendations			Patient Records
7.	Diagnosis	Assessment of Risk and Treatment Planning	Health Partners	Mod/Hi Risk 5-18yo w/ Sealant			Patient Records

<sup>7</sup> Italic font denotes assumed data source

<sup>8</sup> Dr. C. W. Amundson. Health Partners: Practice Based Measurement. Presentation to the DQA Membership, June 19<sup>th</sup>, 2015, Chicago.

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8.	Diagnosis	Risk Assessment	Washington Dental Services <sup>9</sup>	Percentage of dental patients that have oral health risk assessment			Patient Records
9.	Prevention	Topical Fluoride	Washington Dental Services	Percentage of patients who receive topical fluoride application			Patient Records
10.	Prevention	Sealants	Washington Dental Services	Percentage of 6-9 year old children who were seen by a practitioner who received a sealant on one or more first permanent molar tooth.			Patient Records
11.	Prevention	Sealants	Washington Dental Services	Percentage of 10-14 year old children who were seen by a practitioner who received a sealant on one or more second permanent molar tooth.			Patient Records
12.		Self-Management Goal Setting and Review	Washington Dental Services	Percentage of dental patients that have oral health self-management goals set and reviewed			Patient Records
13.	Diagnosis	New caries rate	Washington Dental Services	Percentage of established dental patients that have new caries at recall			Patient Records
14.	Treatment	Treatment Plan Completion	Washington Dental Services	Percentage of patients that have treatment plan completed within 6 months			Patient Records
15.	Diagnosis	Caries Free	Erie Family Health Center, Chicago <sup>10</sup>	Percentage of pediatric oral health patients enrolled in program for at least one year experience no new cavities			Patient Records

<sup>9</sup> D.L. Oakes and A. Nguyen, National Oral Health Conference (2013). Washington Dental Services. The Dental Dashboard: Using Measurement to Strengthen Program Quality and Improve Patient Outcomes



16.		Treatment Plan Completion	Erie Family Health Center, Chicago	Percentage of oral health patients complete treatment plan within one year			Patient Records
17.		Annual Dental Visit	DentaQuest Institute <sup>10</sup> (This measure can be expanded to include adults HEDIS® Measure – Adapted to include additional age groups Note: Visits for many 1 year olds will be counted because the specification includes children whose second birthday occurs any time during the measurement year)	The percentage of patients who had at least one dental visit during the measurement year.	Number of patients with one or more dental visits with a dental practitioner during the measurement year.	All eligible patients served by the HRSA funded program. The measure is reported for each of the following age stratifications and as a combined rate. <ul style="list-style-type: none"> <li>• 2-3 years</li> <li>• 4-6 years</li> <li>• 7-10 years</li> <li>• 11-14 years</li> <li>• 15-18 years</li> <li>• 19-21 years</li> <li>• &gt;21 years</li> <li>• &gt;65 years</li> </ul>	Patient Records

<sup>10</sup> J. R. Anderson (2011). Creating an Oral Health Quality Measures Dashboard For Health Center Dental Programs

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18.		Periodontal screening or examination	DentaQuest Institute (adapted from HIV/AIDS Bureau Measure	Percentage of oral health patients who had a periodontal screening or examination at least once in the measurement year.	Number of oral health patients who had periodontal screening or examination at least once in the measurement year	Number of oral health patients that received a clinical oral evaluation at least once in the measurement year. Exclusions: 1. Patients who had only an evaluation or treatment for a dental emergency in the measurement year. 2. Full denturist patients (This measure may also be very useful for DM, and perinatal?)	Patient Records
19.		Oral health education Service given by a dentist or dental hygienist , dental assistant and/or dental case manager	DentaQuest Institute (adapted from HIV/AIDS Bureau Measure	Percentage of oral health patients who received oral health education at least once in the measurement year.	Number of oral health patients who received oral health education at least once in the measurement year.	Number of oral health patients that received a clinical oral evaluation at least once in the measurement year. patients who had only an evaluation or treatment for a dental emergency in the measurement year will be excluded.	Patient Records
20.		Primary Care Provider Dental Counseling: medical setting	DentaQuest Institute	Percentage of children age 12 to 48 months who received patient education and anticipatory guidance for oral health in the medical setting	Children age 12 to 48 months with dental/oral health counseling by a primary care provider documented (last 12 months)	Children age 12 to 48 months seen by a primary care provider documented (last 12 months)	Patient Records

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21.		Dental Sealant	DentaQuest Institute (Measure used by MCHB and States of Maine, Kansas, Texas, Virginia and Tennessee with HRSA modification to age 21)	The percentage of children between the ages of 6 and 21 years who received at least a single sealant treatment from a dentist.	The number of children between the ages of 6 and 21 years who received at least a single sealant treatment from a dentist during the reporting period.	The percentage of all children between the ages of 6 and 21 years who had a dental visit during the reporting period. *	Patient Records
22.		Fluoride varnish applications	DentaQuest Institute (Modified from HRSA Oral Health Disparity Collaborative to include age 6 HRSA Health Disparity Collaborative Tested)	Percentage of children age 12 to 72 months with 1 or more fluoride varnish applications documented	Number of patients in the denominator with a topical fluoride varnish (D1206) documented (within the previous 12 months)	Number of children 1-6 years of age with a documented dental visit in the last 12 months	Patient Records

23.		Completed Comprehensive Treatment Plan	DentaQuest Institute (HRSA Health Disparity Collaborative Tested HAB OPR ORHP)	Percentage of all dental patients for whom the Phase I treatment plan is complete d within a 12 month period.	Number of patients from the denominator with a completed Phase 1* treatment within 12 months of initiation.	<p>Number of patients that receive a comprehensive oral exam or a periodic recall oral exam within the measurement year</p> <p>Phase 1 Treatment is completed when: Patient has been discharged to periodic follow up after all items in the phase 1 treatment plan as noted above are completed. Note: if the patient chooses to discontinue Phase 1 therapy, then the treatment would be considered complete.</p>	Patient Records
24.		Restoration, crown or bridge followed by an extraction on the same tooth or one or more of the teeth involved in the original restoration within 6 months	DentaQuest <sup>11</sup>	Unduplicated number of patients with at least one tooth that was extracted (D7140 or D7210) within 6 months of restoration, crown or bridge by ANY Provider	Unduplicated number of patients with at least one tooth that received a restoration, crown or bridge (D2000 series, D6545, D6794) from a GP; Patient could fall under multiple providers (Only include Denominator > 9-do not include first quartile)		Patient Records

<sup>11</sup> Dr. Rob Compton, DentaQuest Institute

25.		Of all the patients seen, how many had four quadrants of any scaling and root planing on the same date of service	DentaQuest	Unduplicated number of patients that received SRP (D4341 or D4342) on all four quadrants on the same date of service from ANY provider	Unduplicated number of patients seen by a GP; Patient could fall under multiple providers (Only include Denominator > 19 -do not include first quartile)		Patient Records
26.		Of all patients age 6-9 seen by a GP or Pediatric dentist, how many received a sealant on their first molar from any provider?	DentaQuest	Unduplicated number of patients that received at least one sealant or PRR (D1351, D1352) on a first molar from ANY provider	Unduplicated number of patients age 6-9 seen by a GP or Pedo in the reporting year or three years prior; Patient could fall under multiple providers (All providers included, even if denominator is low)		Patient Records
27.		Utilization of PST	Permanente Dental Associates <sup>12</sup>	Percentage of Dentists using Patient Support Tool (PST)			Patient Records

<sup>12</sup> Dr. John Snyder, Quality Measurement Models (2015. DQA 2015: Roles of Quality Measurement

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28.		Utilization of PST	Permanente Dental Associates	Percentage of eligible patients receiving PST sheet			Patient Records
29.		Restorative Care Completion	Permanente Dental Associates	Completion of Restorative Care or Treatment Planned within 3 months from Root Canal Therapy			Patient Records
30.		Obturation Rate	Permanente Dental Associates	Percentage of Obturations (ant., bi., molar total) by General Dentist			Patient Records
31.		Surgical procedures	Permanente Dental Associates	% Surgery Procedures by General Dentist			Patient Records
32.		Implants internal restorations	Permanente Dental Associates	Percentage of Implants Restored Internally			Patient Records
33.		Surgical Implants Rate	Permanente Dental Associates	Percentage of Implants Surgically Placed			Patient Records
34.		Fluoride Placement	Permanente Dental Associates	Percentage of mod/high risk (C2M, C2H, C3H) Caries Patients Who are Treatment Planned for or Have Received Preventive Treatment			Patient Records

35.		Care Continuity for Children 2-20 Years	DQA <sup>13</sup>	Children, age 2-20 years, who received a limited, periodic, comprehensive, or problem focused oral evaluation or an oral assessment in the year prior to the measurement year.	The numerator is the subset of children in the denominator who also had a comprehensive or periodic oral evaluation in the measurement year.	The denominator is the subset of the IPP to include children who received an oral assessment or limited, periodic, comprehensive, or problem focused oral evaluation in the year prior to the measurement year.	Patient Records
36.	Prevention	Sealants for Children 6-9 Years	DQA	Children, age 6-9 years, who received a comprehensive or periodic oral evaluation or an oral assessment and are at moderate to high risk for caries in the measurement year.	The numerator is the subset of children in the denominator who received a sealant on a permanent first molar tooth in the measurement year.	The denominator is the subset of children in the IPP who had an oral assessment or comprehensive or periodic oral evaluation visit and are at moderate to high risk for caries in the measurement year	Patient Records
37.	Prevention	Risk Assessment	DeltaDental Dentalytics <sup>14</sup>	Percentages of enrollees age 6-9 at risk- first molar sealant in the past 4 years			
38.	Prevention	Risk Assessment	DeltaDental Dentalytics	Percentages of enrollees age 10-14 at risk- second molar sealants in past five years			

<sup>13</sup> Dental Quality Alliance (2015) (<http://www.ada.org/en/science-research/dental-quality-alliance/dqa-measure-activities/electronic-pediatric-measures>)

<sup>14</sup> Ms. Jean De Luca, President & CEO, Delta Dental of Idaho, Dentalytics Tool

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39.	Prevention	Fluoride placement	DeltaDental Dentalytics	Percentages of enrollees age 6-18 at risk- 1 more fluoride			
40.	Prevention	Periodontal Maintenance	DeltaDental Dentalytics	Percentage of adults with history of periodontal maintenance			
41.	Diagnosis	Risk Assessment	DeltaDental Dentalytics	Percentage of adults at risk-examination			
42.	Prevention	Children Who Received Preventive Dental Care	CAHMI <sup>15</sup>	Assesses how many preventive dental visits during the previous 12 months	Percentage of children who had one or more preventive dental visits in the past 12 months.	Children age 1-17 years	Administrative Claims Data/ Patient Records
43.	Prevention	Dental Sealant Ratio	Obtained from: NCQA	The ratio of sealed occlusal surfaces in permanent molar teeth to restored occlusal surfaces in permanent molar teeth. This measure would examine first molars in 5-8 year olds and second molars in 11-14 year-olds.	Number of sealed occlusal surfaces in permanent molar teeth	Number of restored occlusal surfaces in permanent molar teeth	Administrative Claims Data/ Patient Records

<sup>15</sup> Dental Quality Alliance (2012). Pediatric Oral Health Quality and Performance Measures: Environmental Scan (<http://www.ada.org/en/science-research/dental-quality-alliance/dqa-measure-activities>)



44.	Prevention	Dental Sealant Ratio	Obtained from SNAC – source not identified	The measure examines the ratio of sealed occlusal surfaces in permanent molar teeth to restored occlusal surfaces in permanent teeth	Number of sealed occlusal surfaces in permanent molar teeth	Number of restored occlusal surfaces in permanent molar teeth. Since ideally, sealants should be placed as soon after eruption as possible, timeliness of the sealant application is an important component of assessing plan performance. Thus, by stratifying the measure by age groups when first and second molars are most likely to appear (i.e 5-8 for the first molars and 11-14 for the second) will make for a more meaningful comparison between plans.	Administrative Claims Data/ <i>Patient Records</i>
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45.	Prevention	Dental Sealants Placed Per Available Tooth Year	Obtained from SNAC – source not identified	The proportion of teeth available sealed in the biologic year(s) following the eruption of the permanent molar teeth	The number of individual teeth receiving sealants subsequent to the available patient pool achieving the ages defined in the denominator. These data would be derived from claims or encounter from data on CDT-2 code 01351	The number of permanent molar teeth available for sealant application in the population being served by the plan. This includes both the first and second molar eruptions and makes the assumption that in the population served, there is a normal eruption distribution where the first molars erupt during the 6th year of life and the second molars erupt during the 12th year. These data would be calculated based on the number of available recipients as determined by eligibility data.	Administrative Claims Data
46.	Clinical Service Quality	Deciduous teeth extracted following pulp treatment	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of deciduous teeth extracted (for pathological reasons within 6 months following pulpotomy treatment, during the time period under study.	Total number of deciduous teeth extracted* (for pathological reasons) within 6 months following pulpotomy treatment, during the time period under study	Total number of deciduous teeth receiving a pulpotomy treatment* in the period of assessment, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
47.	Clinical Service Quality	Re-treatment after sealant	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of teeth requiring re-treatment (restoration, endodontic or extraction, but not including Pit & Fissure Sealants) within 24 months of the initial fissure sealant treatment.	Total number of teeth requiring re-treatment (restoration, endodontic or extraction, but not including Pit & Fissure Sealants)* within 24 months of the initial fissure sealant treatment	Total number of teeth receiving a fissure sealant treatment* in the period of assessment, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
48.	Clinical Service Quality	Complications following routine extraction	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of attendances for complications within 7 days of routine extraction, during the time period under study	Total number of attendances for complications* within 7 days of routine extraction, during the time period under study	Total number of simple extractions*, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>

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49.	Clinical Service Quality	Complications following surgical extraction	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of attendances for complications within 7 days of surgical extraction, during the time period under study	Total number of attendances for complications* within 7 days of surgical extraction, during the time period under study	Total number of teeth surgically extracted*, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
50.	Clinical Service Quality	Endodontic treatment completion	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of completed courses of endodontic treatment on the same tooth within 6 months of initial treatment, during the time period under study	Total number of completed courses of endodontic treatment on the same tooth within 6 months of initial treatment, during the time period under study	Total number of endodontic treatments* commenced, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
51.	Clinical Service Quality	Extractions after endodontic treatment	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of teeth extracted within 12 months of completing a course of endodontic treatment, during the time period under study.	Total number of teeth extracted* within 12 months of completing a course of endodontic treatment, during the time period under study	Total number of teeth on which there has been a completed course of endodontic treatment*, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
52.	Clinical Service Quality	Re-treatment after endodontic treatment	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of teeth retreated between 1 and 6 months of completing a course of endodontic treatment, during the time period under study.	Total number of teeth retreated* between 1 and 6 months of completing a course of endodontic treatment, during the time period under study	Total number of teeth on which there has been a completed course of endodontic treatment*, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
53.	Clinical Service Quality	Re-treatment after restorative treatment	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of teeth retreated within 6 months of an episode of restorative treatment, during the time period under study.	Total number of teeth retreated* within 6 months of an episode of restorative treatment, during the time period under study	Total number of teeth restored*, during the time period under study	Administrative Claims Data/ <i>Patient Records</i>
54.	Diagnosis	Diagnostic Rate	Obtained from SNAC: Currently being used by Sacramento County GMC Dental Program	Indicator of whether a comprehensive oral examination, dental cleaning and appropriate radiographs are being performed in a single office visit	Total number of CDT-2 code subcategories (clinical oral evaluations, radiographs/diagnostic imaging and dental prophylaxis) performed on the same date of service within the reporting year	Total number of CDT-2 code subcategory "clinical oral evaluation" performed within the reporting year	Administrative Claims Data/ <i>Patient Records</i>

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55.	Diagnosis	OPG for new patients	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of new patients aged under 18 years who had an orthopantomogram (OPG) film taken or ordered as part of the first general course of care, during the time period under study	Total number of new patients aged under 18 years who had an orthopantomogram (OPG) film taken or ordered as part of the first general course of care, during the time period under study. Include only data for the date of the examination.	Total number of new patients* aged under 18 years, during the time period under study	Administrative Claims Data/ Patient Records
56.	Diagnosis	Intraoral films for new patients	Obtained from NQMC: Australian Council on Healthcare Standards	Percentage of new patients aged under 18 years who had intraoral films taken as part of the first general course of care, during the time period under study	Total number of new patients aged under 18 years who had intraoral films taken as part of the first general course of care, during the time period under study. Include only data for the date of the examination.	Total number of new patients* aged under 18 years, during the time period under study	Administrative Claims Data/ Patient Records
57.	Diagnosis	Assessment of Disease Status	<a href="https://www.cms.gov/">Obtained from: https://www.cms.gov/</a>	Percentage of all child enrollees who have had their periodontal and caries status assessed within the past year	Number of child enrollees who have had their periodontal and caries status assessed within the past year	total number of child enrollees	Administrative Claims Data/ Patient Records
58.	Diagnosis and Prevention	Diagnostic and Preventive Procedures	Obtained from SNAC: Currently used in Delta Dental's 1998 report card on HMO and FFS providers	Number of diagnostic and preventive procedures compared to all procedures	Number of diagnostic and preventive procedures	total number of procedures	Administrative Claims Data/ Patient Records
59.	Oral Health Status	Children Who Have Dental Decay or Cavities	Obtained from NQF : NCHS measure	Assesses if children age 1-17 years have had tooth decay or cavities in the past 6 months	Whether child had cavities or decayed teeth in past 6 months.	Children and adolescents age 1-17 years	Administrative Claims Data/ Patient Records

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60.	Prevention	Preventive Treatment for Caries-active Children	Obtained from SNAC: Part of Dental Plan Performance Measures (DPPM), version 1.0	Percentage of all caries-active child enrollees who receive a dental sealant or a fluoride treatment within the reporting year	number of child enrollees with active caries that receive dental sealant or fluoride treatment during the reporting year	number of child enrollees who have been assessed and have active caries	Administrative Claims Data
61.	Prevention	Fluoride Therapy	Obtained from SNAC – source not identified	Proportion of high caries risk enrollees receiving supplemental fluoride therapy	number of high caries risk enrollees receiving supplemental fluoride therapy	total number of high caries risk enrollees	Administrative Claims Data
62.	Prevention	Fluoride Exposure	Obtained from SNAC – source not identified	Percentage of children who received a fluoride exposure assessment	Number of children who receive a fluoride exposure assessment	total number of children	Administrative Claims Data/ <i>Patient Records</i>
63.	Prevention	Dental Sealant Prevalence Among School Children	Obtained from SNAC: part of Dental Plan Performance Measures (DPPM), version 1.0	Percent of 8-14 year old children who have one or more sealed permanent molar teeth	number of 8-14 year old children surveyed who have at least one sealant on a permanent molar tooth	number of 8-14 year old children surveyed	<i>Administrative Claims Data/Survey Responses</i>
64.	Prevention	High-risk Eight Year Olds with Sealants	Obtained from SNAC – source not identified	Proportion of high-risk eight year olds with sealants on four first molar occlusal surfaces	number of high-risk eight year olds with sealants on four first molar occlusal surfaces	total number of high-risk eight year olds	Administrative Claims Data/ <i>Patient Records</i>
65.	Prevention	Sealant to Prophylaxis Procedure Ratio (Index)	Obtained from SNAC: currently being used by Sacramento County GMC Dental Program	Indicator of whether sealants are being considered within treatment plans	Total number of CDT-2 code 01351 performed during reporting year	Total number of CDT-2 codes 01120, 01201, 01203 and 01330	Administrative Claims Data/ <i>Patient Records</i>

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66.	Prevention	Preventive Treatment for Caries-active Children	Obtained from SNAC – source not identified	Percentage of all caries-active child enrollees who receive a dental sealant or a fluoride treatment within the reporting year.	Number of caries-active child enrollees who receive a dental sealant or a fluoride treatment within the reporting year.	number of caries-active child enrollees	Administrative Claims Data
67.	Prevention (Non-Dentist)	Primary Caries Prevention Intervention as Part of Well/III Child Care as Offered by Primary Care Medical Providers	Obtained from NQF: University of Minnesota	The measure will a) track the extent to which the PCMP or clinic (determined by the provider number used for billing) applies FV as part of the EPSDT examination and b) track the degree to which each billing entity's use of the EPSDT with FV codes increases from year to year (more children varnished and more children receiving FV four times a year according to ADA recommendations for high-risk children).	The number of EPSDT examinations done with FV.	All high-risk children (Medicaid/CHIP-eligible) who receive an EPSDT examination from a provider (PCMP or clinic).	Administrative Claims Data
68.	Treatment	Restorative Procedures	Obtained from SNAC: currently used in Delta Dental's 1998 report card on HMO and FFS providers	Number of restorative procedures compared to all procedures	number of restorative procedures	total number of procedures	Administrative Claims Data/ <i>Patient Records</i>
69.	Treatment	New Caries Among Caries-active Children	<a href="https://www.cms.gov/">Obtained from: https://www.cms.gov/</a>	Proportion of all caries-active child enrollees who receive treatment for caries-related reasons within the reporting year	number of caries-active child enrollees who receive treatment for caries-related reasons within the reporting year	number of caries-active child enrollees	Administrative Claims Data
70.	Treatment	New Caries Among Caries-inactive Children	<a href="https://www.cms.gov/">Obtained from: https://www.cms.gov/</a>	proportion of all previously caries-inactive child enrollees who receive treatment for caries-related reasons within the reporting year	Number of previously caries-inactive child enrollees who receive treatment for caries-related reasons within the reporting year	number of previously caries-inactive child enrollees	Administrative Claims Data

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71.		Dental Visit By Age Two	Obtained from SNAC – source not identified	Percentage of children under age 2 who have had a dental visit			Administrative Claims Data/ Patient Records
72.		Disease Free at One Year Post Treatment	Obtained from SNAC – source not identified	Percentage of children with ECC who are disease free at one year			Administrative Claims Data/ Patient Records
73.		New Caries Among Caries-active Children	Obtained from SNAC: Part of Dental Plan Performance Measures (DPPM), version 1.0	Proportion of all caries-active child enrollees who receive treatment for caries within the reporting year	Number of caries active child enrollees who receive restorative, prosthetic, endodontic, or oral surgery treatment for caries-related reasons.	all caries active child enrollees	Administrative Claims Data
74.		Dental Repair for Children with Early Childhood Caries (ECC)	Obtained from SNAC – source not identified <sup>15</sup>	Percentage of children with ECC who receive dental repair			Administrative Claims Data/ Patient Records
75.		Extraction Ratio	Obtained from SNAC: Part of Dental Plan Performance Measures (DPPM), version 1.0	The ratio of the teeth treated endodontically to the number of teeth extracted among all enrollees	total number of teeth treated endodontically during the reporting year	total number of non-third molar teeth extracted during the reporting year	Administrative Claims Data/ Patient Records
76.		Endodontics to Extractions Procedure Ratio (Indice)	Obtained from SNAC: Currently being used by Sacramento County GMC Dental Program	Indicator of whether primary teeth, salvageable with endodontic treatment, are being extracted	total number of primary tooth endodontic CDT-2 codes for a reporting year	Total number of primary tooth extractions CDT-2 codes for a reporting year	Administrative Claims Data/ Patient Records

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77.		Restorations to Extractions Procedure Ratio (Indice)	Obtained from SNAC: Currently being used by Sacramento County GMC Dental Programs	Indicator of whether treatment plans are skewed towards extracting primary teeth versus restorative treatment	sum of all primary tooth restorative CDT-2 codes for the reporting year	sum of all primary tooth extraction CDT-2 codes for the reporting year	Administrative Claims Data/ <i>Patient Records</i>
78.		Restorative Treatment Ratio	Obtained from SNAC: Part of Dental Plan Performance Measures (DPPM), version 1.0	The ratio of the number of preventive procedures provided to the number of restorative procedures provided to enrollees	total number of preventive procedures provided during the reporting year	total number of direct restorative procedures provided during the reporting year	Administrative Claims Data/ <i>Patient Records</i>
79.		Treatment of Clef Lip, Cleft Palate, and Craniofacial Anomalies	Obtained from SNAC – source not identified	percentage of children with cleft lip, cleft palate, and other craniofacial anomalies who receive assessment by multidisciplinary team			Administrative Claims Data/ <i>Patient Records</i>
80.		Nerve Treatment	Obtained from SNAC – source not identified	percentage of children with posterior primary tooth pulputomy (nerve treatment) who have also had stainless steel crowns on the affected teeth			Administrative Claims Data/ <i>Patient Records</i>
81.		Space Maintainer	Obtained from SNAC – source not identified	Percentage of children with a posterior primary tooth premature extraction that have subsequently had a space maintainer placed			Administrative Claims Data/ <i>Patient Records</i>
82.		Broken Appointments	Obtained from SNAC – source not identified	number of appointments broken by patients. Failure to keep regular or recall appointments can negatively impact upon a patient's oral health status			Administrative Claims Data/ <i>Patient Records</i>



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83.		Dental Visit	Obtained from SNAC: PHP 22A	the percentage of patients who had at least one dental visit during the measurement year (differs from NCQA—data source is CHCs; broader age range)			Administrative Claims Data/ Patient Records
84.		Dental Caries	Obtained from: <a href="http://www.colorado.gov/">http://www.colorado.gov/</a>	Dental Caries ages 1-8 years of age			Administrative Claims Data/ Patient Records
85.		Sealants	Obtained from: <a href="http://www.colorado.gov/">http://www.colorado.gov/</a>	The percentage of children who have received protective sealants on their first permanent molars by age 6 (or when adequately erupted)			Administrative Claims Data/ Patient Records
86.		ACHS: Repeat Sealant	Obtained from NQMC	Oral health - children: percentage of teeth requiring repeat fissure sealant treatment within 24 months of the initial fissure sealant treatment.			Administrative Claims Data/ Patient Records
87.		ACHS: OPG for 18 – 24 years	Obtained from NQMC	Oral health: percentage of new patients in the age bracket 18 to 24 years who had an orthopantomogram (OPG) film taken or ordered as part of the first general course of care, during the time period under study.			Administrative Claims Data/ Patient Records
88.		ACHS: Intraoral film for 18 – 24 years	Obtained from NQMC	Oral health: percentage of new patients in the age bracket 18 to 24 years who had intraoral films taken as part of the first general course of care, during the time period under study.			Administrative Claims Data/ Patient Records

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89.		ACHS: Updated medical history	Obtained from NQMC	Oral health: percentage of patients with completed and updated medical history, during the time period under study.			Administrative Claims Data/ Patient Records
90.		ACHS: Completed charting	Obtained from NQMC	Oral health: percentage of patients with completed charting at initial assessment for general course of care, during the time period under study.			Administrative Claims Data/ Patient Records
91.		ACHS: Radiographs	Obtained from NQMC	Oral health: percentage of radiographs (bite-wing) that meet all of the 6 criteria (as outlined), during the time period under study.			Administrative Claims Data/ Patient Records
92.		Oral Health Access	Obtained from: <a href="http://www.qualityforum.org/">http://www.qualityforum.org/</a>	The percentage of children who had an oral health exam and proper follow-up performed. Four rates are reported: 1. By 2 years of age 2. By 6 years of age 3. By 13 years of age 4. By 18 years of age			Administrative Claims Data/ Patient Records
93.		Preventive dental visits	Obtained from: <a href="http://www.qualityforum.org/">http://www.qualityforum.org/</a>	Assesses how many preventive dental visits in a 12 month period (does not include visits related to specific dental issues)			Administrative Claims Data/ Patient Records

94.		Comprehensive Well Care for Children by Age 2 years	Obtained from: <a href="http://www.qualityforum.org/">http://www.qualityforum.org/</a>	The percentage of children who turned two years old during the measurement year and who had the following indicators of comprehensive well care documented between 6 months and 2 years of life. Eight rates across three domains are reported: Protection of Health 1. Immunizations 2. Iron Deficiency Assessment and Supplementation <b>3. Oral Health Access</b> 4. Lead Screening Healthy Cognitive, Social-Emotional, Behavioral and Physical Development 5. Developmental Screening 6. Autism Screening 7. Physical Growth Assessment Protection of Health Through a Safe Environment 8. Environmental Tobacco Counseling Type: Process			Administrative Claims Data
95.		The GPRA measure of IHS AI/AN patients – Appropriate topical fluoride	Obtained from: <a href="http://www.health.state.mn.us/">http://www.health.state.mn.us/</a>	Count only (no percentage comparison to denominator). The total number of appropriate topical fluoride applications based on a maximum of four per patient per year.			Administrative Claims Data/ Patient Records
96.		The GPRA measure of IHS AI/AN patients – At least 1 topical fluoride	Obtained from: <a href="http://www.health.state.mn.us/">http://www.health.state.mn.us/</a>	Count only (no percentage comparison to denominator). The total number of patients with at least one topical fluoride treatment during the Report Period.			Administrative Claims Data/ Patient Records

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97.		IHS Dental Sealants placed (as an assessment of our primary prevention efforts)	Obtained from: <a href="http://www.ih.s.gov/">http://www.ih.s.gov/</a>	There is no numerator, nor denominator. This assessment is a simple count of sealants placed within the data collection year			Administrative Claims Data/ <i>Patient Records</i>
98.		IHS Number of Patients Receiving One or More Topical Fluoride Applications (as an assessment of our primary prevention efforts)	Obtained from: <a href="http://www.ih.s.gov/">http://www.ih.s.gov/</a>	There is no numerator, nor denominator. This assessment is a simple count of patients receiving one or more applications of topical fluoride in the data collection year.			Administrative Claims Data/ <i>Patient Records</i>