

Journal

CALIFORNIA DENTAL ASSOCIATION



April 2016

Quality Improvement in
Pediatric Oral Health

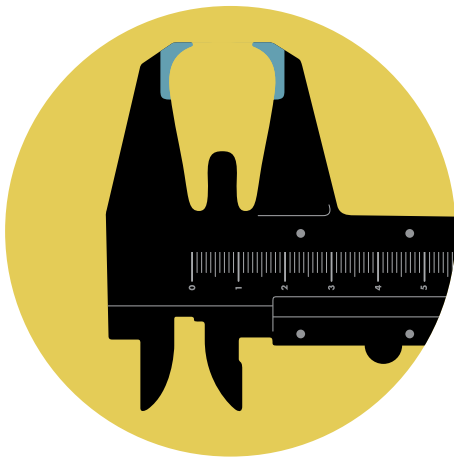
Dental Quality Measurement

Dental Quality Alliance



**ADVANCING
MEASUREMENT
AND QUALITY
IMPROVEMENT IN
DENTISTRY**

James J. Crall, DDS, ScD



Leading the Dental Quality Movement: A Dental Quality Alliance Perspective

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ABSTRACT Changing regulatory priorities set forth by the Affordable Care Act and recent activities of the Centers for Medicare and Medicaid Services clearly prioritize the need to improve the quality of health care in both the public and private sectors. As the largest multistakeholder organization focused on oral health care quality measurement and improvement, the Dental Quality Alliance is leading the way in establishing standardized and valid quality measures applicable in both private and public sectors.

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Conflict of Interest Disclosure: Dr. Ojha is lead staff for the Dental Quality Alliance.

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As national expenditures on health care continue to rise, the need to accurately assess quality and efficiency of care has become more urgent. Measurement forms the basis of evaluation and has become one of the foundations of the current efforts to improve health care quality.¹ Establishing measures to identify and monitor innovative strategies to reduce incidence of oral disease, while simultaneously improving effectiveness and efficiency of care through a focus on prevention, is an important national priority.² Although measuring the quality of health care and using those measurements to promote improvements in the delivery of broader health care are now commonplace,³ these concepts are still a rarity in the dental delivery system. The Dental Quality Alliance (DQA) aims to lead the dental profession into a paradigm of standardized measuring and reporting for the purpose of quality improvement of oral health care.

Quality Landscape in Dentistry

Over the years, there have been many legislative mandates that have highlighted the need for a quality focused health system. The Patient Protection and Affordable Care Act of 2010, commonly called the Affordable Care Act (ACA), seeks to increase access to high-quality, affordable health care for all Americans and is shifting the focus from volume-based reimbursement to payment models that emphasize quality and value.⁴ The mandate to publicly report quality scores for plans on public exchanges is scheduled to take effect this year. The Quality Rating System (QRS) proposed for the federally facilitated marketplaces requires qualified health plans that include an embedded pediatric benefit to report on the “annual dental visit” measure of dental service utilization.⁵

The Medicaid market for dental care has grown significantly in many states as a result of the ACA and states' efforts to expand eligibility. Even in states electing not to

expand Medicaid eligibility, economic changes have contributed to increases in the number of adults and children covered by Medicaid.⁶ Within an overall stagnant dental care sector, impacted by declining dental care use among middle- and high-income adults, Medicaid represents one of the few market segments with expanding demand for dental care.⁶ Although adult dental benefits are still not considered an “essential health benefit,” marketplaces and states have begun offering the option of purchasing unsubsidized dental coverage, which is a step toward improving access and reducing rates of adults without dental insurance coverage.⁷ Expanded coverage acts as a driver for additional development of measures of dental service utilization, value and the impact of dental services on the dental and general health of beneficiaries. Furthermore, greater emphasis on patient-centered, coordinated and integrated care and accountability form the basis for growing demands for measuring quality, performance and value pursuant to the ACA. Most accountable care organization (ACO) models that have emerged have largely focused on health care services for the Medicare population with little to no attention to dental services.⁸ However, over time, the share of commercial ACO contracts that include dental services has increased. Additionally, emerging models based on patient-centered dental homes could help bridge the gap between oral and general health care, improve coordination of care and help reduce overall health care costs.⁸

Private payers have long used administrative data analyses to assess various quality- or performance-related aspects of their benefit plans. Much of the knowledge gained from these analyses has been proprietary. Plans have created various types of provider “profiles” for internal use. It is anticipated that practice-level or clinician-level measurement will be used increasingly

by payers to create “selective” or “high-value” networks. Commercial medical plans and a growing number of state-based medical collaboratives are beginning to publicly report quality scores for physicians.

The terms “quality measures” or “performance measurement” have been largely elusive in dentistry. The Institute of Medicine (IOM), in two reports, has identified a lack of quality measures as a barrier to improving oral health and reducing oral health disparities.^{9,10} The IOM defines quality of care as “the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.”¹¹ An increasing variety of stakeholders is demanding accurate measures of quality to determine whether high-quality care is being provided consistently across the health care delivery system. A report from the Kellogg Foundation and the DentaQuest Institute outlines an approach to expand the oral health quality improvement effort through data collection, accountability and new ways of delivering oral health care.¹² In recent years, a growing number of quality measures and reporting initiatives have resulted in a proliferation of measures that are often duplicative and unduly burdensome on health care providers and increase the potential for confusion among the public.⁴

The role of a dental and oral health measure developer has long been occupied by entities that are not traditionally from the dental industry. These activities within dentistry, until recently, have been limited to the federal agencies such as the Centers for Medicare and Medicaid Services (CMS), Health Resources and Services Administration (HRSA), the Agency for Healthcare Research and Quality (AHRQ), commercial private purchasers/payers, data analytics companies supporting these commercial health plans

TABLE 1

Dental Quality Alliance Member Organizations

Organizational Members

Academy of General Dentistry
 American Academy of Oral & Maxillofacial Pathology
 American Academy of Oral & Maxillofacial Radiology
 American Academy of Pediatric Dentistry
 American Academy of Periodontology
 American Association of Endodontists
 American Association of Oral and Maxillofacial Surgeons
 American Association of Orthodontists
 American Association of Public Health Dentistry
 American Board of Pediatric Dentistry
 American College of Prosthodontists
 American Dental Association’s Board of Trustees
 American Dental Education Association
 American Dental Hygienists’ Association
 American Medical Association
 America’s Health Insurance Plans Council on Access, Prevention and Interprofessional Relations (ADA)
 Council on Dental Benefit Programs (ADA)
 Council on Dental Practice (ADA)
 Council on Government Affairs (ADA)
 Delta Dental Plans Association
 DentaQuest
 Managed Care of North America Dental
 Medicaid-CHIP State Dental Association
 National Association of Dental Plans
 National Network for Oral Health Access
 The Joint Commission
 American Association for Dental Research

Associate Organizational Members

Adirondack Oral & Maxillofacial Surgery

Public Member

Public Member

Department of Health and Human Services Technical Advisor Liaisons

Agency for Healthcare Research and Quality
 Centers for Disease Control and Prevention
 Centers for Medicare and Medicaid Services
 Health Resources and Services Administration

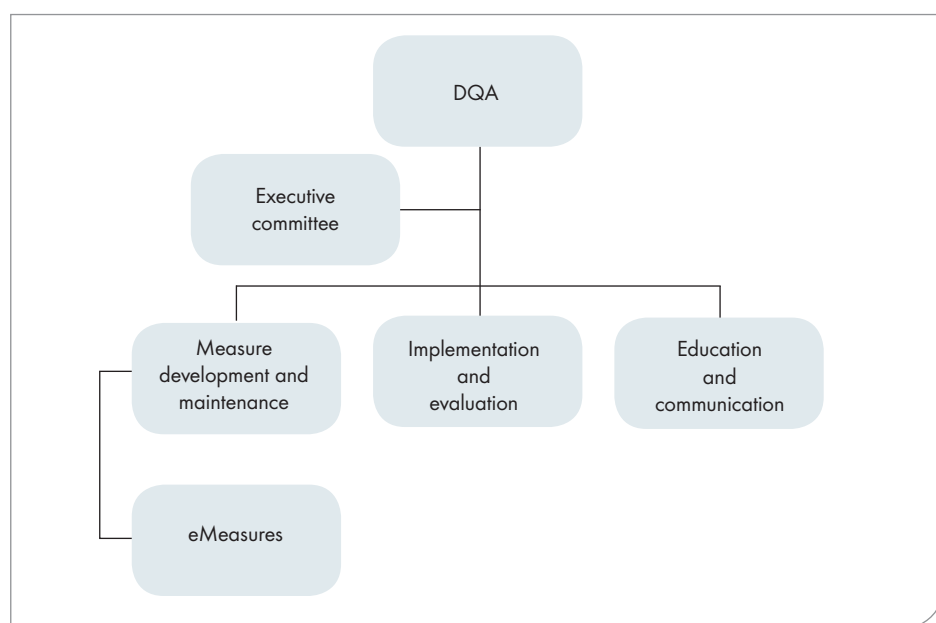


FIGURE 1. Dental Quality Alliance structure.

and the National Commission on Quality Assurance (NCQA), a leading health plan accreditation agency, are all engaging in developing measures for the purpose of program management.¹³ Although a wide variety of stakeholders has independently pursued quality measure development in dentistry, evidence depicts that there is a significant lack of a standardized set of measures between public and private sectors and across community/state/national levels.¹³ Further, there was a need for a balanced approach that evaluates all aspects of care to better understand disparities and adequately plan for improved quality.^{2,13}

In 2008, CMS proposed to the American Dental Association (ADA) establishing a Dental Quality Alliance (DQA), a multistakeholder organization, to lead the efforts in quality measure development.

Dental Quality Alliance

The DQA is comprised of major dental professional societies, payers, educators and a member from the general public. Several federal agencies under the Department of Health and Human Services (HHS) serve as technical advisors to the DQA. These entities have all come together as an alliance to “advance performance

measurement as a means to improve oral health, patient care and safety through a consensus-building process.” In doing so, the DQA has been committed to identifying and developing evidence-based measures, advancing the scientific basis of clinical performance measurement and improvement, and fostering and supporting professional accountability, transparency and value in oral health care. The current DQA members are listed in **TABLE 1**.

DQA Structure

The strong participation by all stakeholders in dentistry along with the volunteerism that generates the work products for the DQA is of paramount importance to its success (**FIGURE 1**).

The DQA’s executive committee oversees the management of the DQA’s strategic, operational and organizational business. To carry out its mission and objectives, the DQA has three core functions:

- *Measure development and maintenance.* Develop evidence-based oral health care performance measures and measurement resources, and advance the effectiveness and scientific

basis of clinical performance measurement and improvement. This committee oversees the work of the DQA e-Measures Committee that develops electronic clinical quality measures.

- *Education and communication.* Educate and communicate with the dental profession and other interested parties regarding performance measurement. This committee also produces educational information regarding the DQA organization and activities.
- *Implementation and evaluation.* Identify and analyze current use of DQA measures and provide guidance for quality improvement.

The DQA draws its strength from its multistakeholder membership involvement and its open and transparent operations. As the only comprehensive multistakeholder collaborative for the development of dental quality measures, the DQA is well-positioned to collaborate, coordinate and lead efforts in measure development through its members’ experience, expertise and support.

Measure Development

An environmental scan conducted by the DQA in 2012 demonstrated that there was a clear need for a balanced approach that evaluates all aspects of care to better understand disparities and adequately plan for improved quality.¹³ It is also imperative that along with concepts, a uniform set of feasible, valid and reliable measure specifications are used across measurement agencies using similar data sources in order to develop benchmarks and compare results toward identifying improvement opportunities.¹³ With that intent, the DQA began a multiyear initiative to develop and test a starter set of pediatric dental quality measures in partnership with the University of Florida.

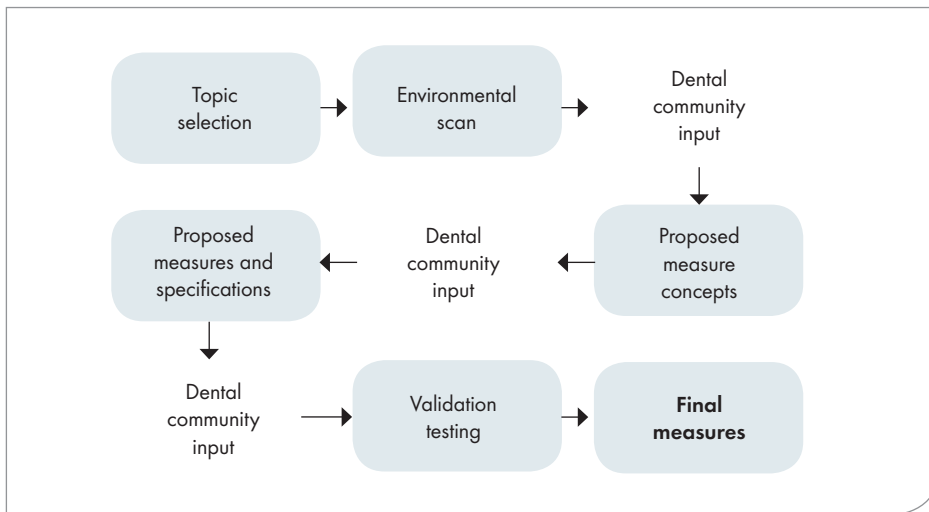


FIGURE 2. Dental Quality Alliance measure development process.

Measure Development Process

The DQA undertakes a comprehensive approach to measure development that is collaborative, transparent and meaningful.¹⁴ The process entails scanning the environment to identify existing oral health performance and quality measure concepts. The scan is released to the dental community for input. Based on the feedback received, the DQA proposes specific measure concepts and releases to the dental community for further commenting. This transparent approach results in proposed measures and their draft specifications. Following a comprehensive request for proposal (RFP) process, the DQA selects a capable research team to conduct validation testing. Throughout the testing process, the DQA engages the stakeholders continuously to solicit feedback and input. This process is discussed in detail in the *DQA Measure Development Manual* (FIGURE 2).¹⁴

Starter Set Pediatric Dental Quality Measures

To implement standardized performance measurement that fosters quality improvement and improved health outcomes, clearly specified, feasible, reliable and valid measures are required. DQA measures have been

developed through extensive testing for validity, reliability, feasibility and usability and are clearly specified, with the intent of evaluating dental health services to allow dental plan and programs to monitor these services.

In order to advance its mission of advancing performance measures and quality improvement in oral health, the DQA developed and approved 14 pediatric measures (TABLE 2). Targeted at the goal of addressing “dental caries in children: prevention and disease management,” these measures fall under the Agency for Health Research and Quality’s domains of use of services, process, access and cost of care and addresses utilization, cost and quality of dental services for children enrolled in public (Medicaid, Children’s Health Insurance Program (CHIP)) and private (commercial) insurance programs. Of the 14 measures, 12 of them have been developed for implementation with administrative enrollment and claims data for plan and program level reporting. These measures have been developed in partnership with the University of Florida. Part of the testing of these measures has been provided by the American Dental Association Foundation (ADAF). Two measures from the starter set that were adapted for

implementation with electronic health records (EHRs) were developed under contract with the Office of the National Coordinator for Health Information Technology (ONC) as electronic clinical quality measures (eCQMs) for the 2017 edition of the Centers for Medicare and Medicaid Services’ Medicaid EHR Incentive Program (Meaningful Use) and are designed for implementation at the clinician level. The DQA provides comprehensive technical assistance for measure implementation. A user guide has been developed by the DQA to provide guidance on the appropriate use of the DQA measures.

Additionally, the DQA has established a comprehensive measure maintenance protocol. In an effort to maintain the properties and the integrity of the measures, the DQA measures and the user guide are reviewed on an annual basis.

Measure Endorsement, Implementation and Educational Activities

Following CMS guidance, the DQA began submitting its measures to the National Quality Forum (NQF), an independent nonprofit organization that evaluates health care quality measures. An NQF endorsement is the gold standard for health care quality. NQF-endorsed measures are evidence based, valid and in tandem with the delivery of care and payment reform.¹⁵ The DQA currently has seven of its quality measures endorsed by the NQF.¹⁵ An NQF endorsement is an important criterion for quality measure selection among many public and private payers.

As measures are developed and endorsed, the DQA is placing significant focus on their implementation. Of note is the announcement from Covered California, a state-based marketplace operating in California, to adopt DQA measures for its qualified dental plan

TABLE 2

Dental Quality Alliance Quality Measures

Measure name	Description	NQF #	Data source	Measure domains	Level(s) of measurement
Evaluating Utilization					
Utilization of services	Percentage of all enrolled children under age 21 who received at least one dental service within the reporting year.	2511	Administrative enrollment and claims	Access/process	Program, plan
Preventive services for children at elevated caries risk	Percentage of all enrolled children who are at "elevated" risk (i.e., "moderate" or "high") who received a topical fluoride application and/or sealants within the reporting year.	N/A	Administrative enrollment and claims	Related health care delivery: use of services	Program, plan
Treatment services	Percentage of all enrolled children who received a treatment service within the reporting year.	N/A	Administrative enrollment and claims	Related health care delivery: use of services	Program, plan
Evaluating Quality of Care					
Oral evaluation	Percentage of enrolled children under age 21 who received a comprehensive or periodic oral evaluation within the reporting year.	2517	Administrative enrollment and claims	Process	Program, plan
Topical fluoride for children at elevated caries risk	Percentage of enrolled 1- to 21-year-olds who are at "elevated" risk (i.e., "moderate" or "high") who received at least two topical fluoride applications within the reporting year.	2528	Administrative enrollment and claims	Process	Program, plan
Sealants for 6- to 9-year-olds at elevated caries risk	Percentage of enrolled children in the 6-to-9-years age category at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent first molar tooth within the reporting year.	2508	Administrative enrollment and claims	Process	Program, plan
Sealants for 6- to 9-year-olds at elevated caries risk	Percentage of enrolled children in the 6-to-9-years age category at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent first molar tooth within the reporting year.	N/A	Electronic health records	Process	Practice
Sealants for 10- to 14-year-olds at elevated caries risk	Percentage of enrolled children in the 10-to-14-years age category at "elevated" risk (i.e., "moderate" or "high") who received a sealant on a permanent second molar tooth within the reporting year.	2509	Administrative enrollment and claims	Process	Program, plan
Care continuity	Percentage of all children enrolled in two consecutive years who received a comprehensive or periodic oral evaluation in both years.	N/A	Administrative enrollment and claims	Process	Program, plan
Care continuity	Percentage of all children enrolled in two consecutive years who received a comprehensive or periodic oral evaluation in both years.	N/A	Electronic health records	Process	Practice
Usual source of services	Percentage of all children enrolled in two consecutive years who visited the same practice or clinical entity in both years.	N/A	Administrative enrollment and claims	Access/process	Program, plan
Ambulatory care sensitive emergency department visits for dental caries in children	Number of emergency department visits for caries-related reasons per 100,000 member months for all enrolled children.	2689	Administrative enrollment and claims	Outcome	Program
Follow-up after emergency department visit by children for dental caries	Percentage of ambulatory care sensitive emergency department (ED) visits for dental caries among 0- to 21-year-olds in the reporting period for which the member visited a dentist within (a) seven days and (b) 30 days after the ED visit.	2695	Administrative enrollment and claims	Process	Program
Evaluating Efficiency and Cost					
Per-member per-month cost of clinical services	Total amount that is paid on direct provision of care (reimbursed for clinical services) per member per month for all enrolled children during the reporting year.	N/A	Administrative enrollment and claims	Related health care delivery: efficiency and cost	Program, plan

contracts for plan year 2016. The Centers for Medicare and Medicaid Services (CMS) has incorporated the DQA dental sealant for 6- to 9-year-olds measure into the core set of children's health care quality measures for CHIP with reporting starting in 2015.¹⁶ HRSA has proposed changes to the calendar year (CY) 2015 Uniform Data System (UDS) to include the DQA dental sealant eMeasure to be reported by Health Center Program grantees that started in early 2016.¹⁷ As more entities implement these measures across different systems, a standardized, balanced approach toward measurement is achievable.

In an effort to facilitate implementation, DQA provides technical assistance to users of DQA measures. The DQA conducts webinars and workshops, develops technical briefs and reports to educate the dental community at large to facilitate the appropriate implementation of these measures.

The DQA is also working with staff from Covered California to develop educational and technical resources to facilitate the DQA measures implementation to evaluate dental plans.

As the measure development and implementation activities progress, the DQA is also very sensitive to the fact that all sections of the profession that impact the oral health of our population must be educated on the need for quality and performance measurement. The DQA maintains extensive educational resources on its webpage at ada.org/dqa. Most important, this page hosts the *Guidebook on Quality Measurement in Dentistry*, which offers insight into what "quality" means for dentistry.¹ There are also several tutorials posted on this page to help us better understand quality and performance measures.¹⁸ In addition, the DQA holds a conference on quality measurement every two years with the intent of

training thought leaders in dentistry to spread the knowledge about quality measurement. The DQA is continuously developing educational resources for various target audiences to promote the value of standardized measurement.

Conclusions

A balanced measurement approach that evaluates multiple aspects of care is essential to promoting improved outcomes, understanding disparities and planning for improved performance. The need to measure quality is rooted in the basic responsibility to assure that the public receives optimal benefits from available knowledge and effective care. The DQA has been at the forefront of the quality movement in dentistry and effectively leading the charge to improve oral health outcomes. ■

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