

Exploring the Wicked Problem of the Oral Health System: Measurement

CareQuest Institute Webinar

April 15, 2021

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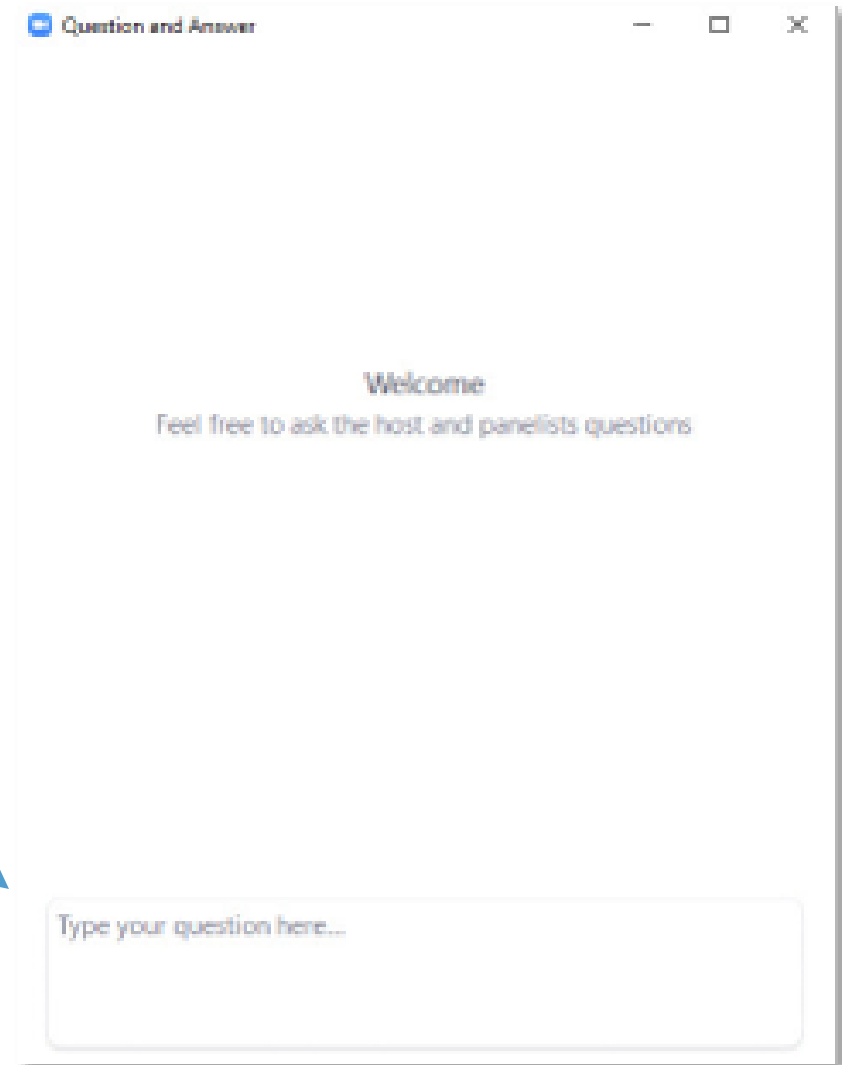


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*Full disclosures available upon request

Question & Answer Logistics

- After the presentations we have time allocated for audience Q&A.
- We are not going to take any questions in between presentations. We will be monitoring the Zoom Q&A box through the entire presentation and we will do our best to answer all your questions at the end.
- Type your question in the **Question-and-Answer** box.



Learning Objectives

- Understand the role of measurement as it relates to value-based oral health care
- Understand the value of preventive care from a measurement perspective
- Learn about the role of measurement and how it is vital to improving the oral health care system

CareQuest Institute for Oral Health

We are building
a future where
every person
can reach their
full potential
through optimal
health.



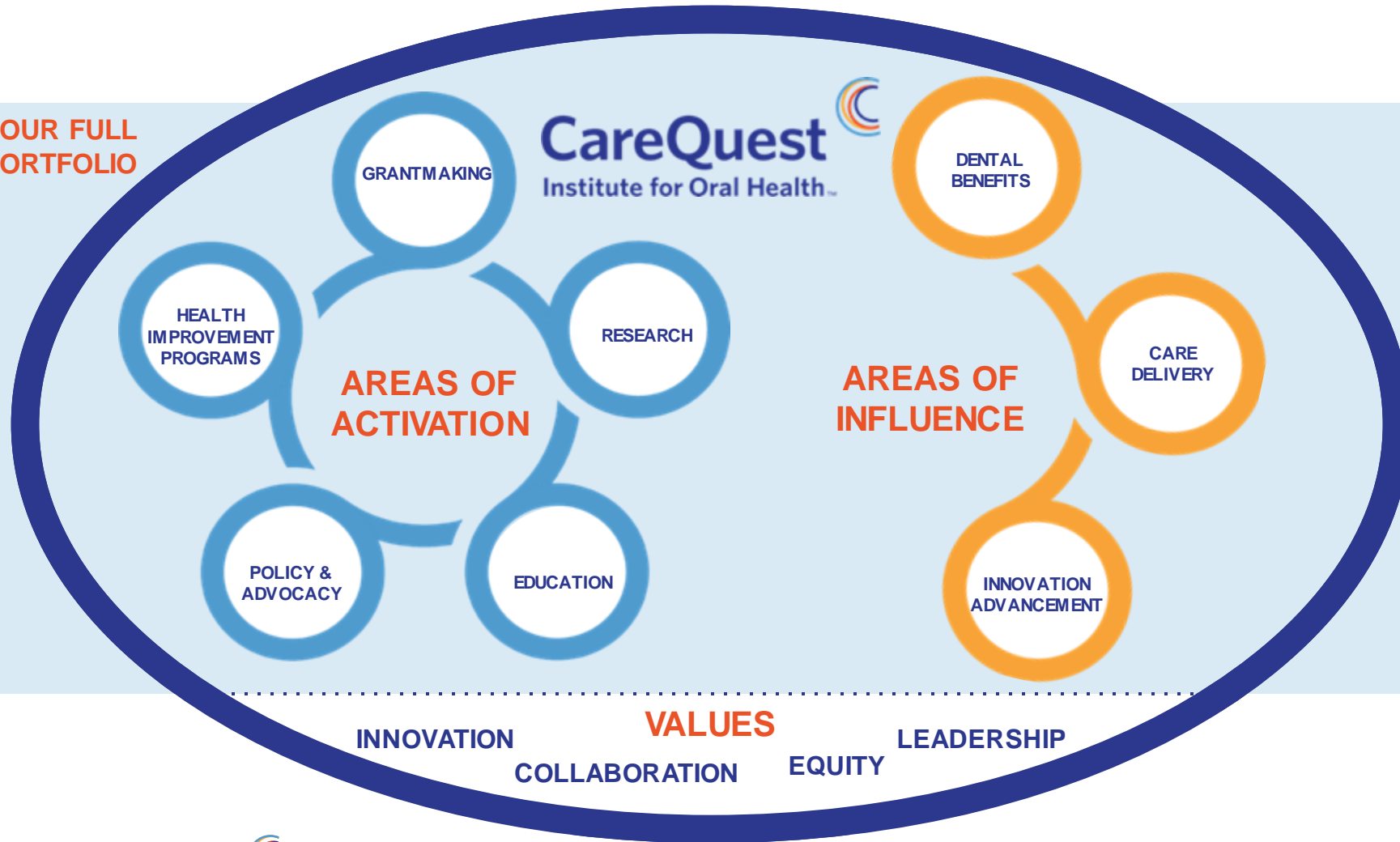
Building on the Successes of Past Organizations: DentaQuest Foundation, Institute, and Partnership

As CareQuest Institute for Oral Health, we pull forward and expand upon the strengths of our past organizations. By doing this, we can accelerate oral health care transformation and move faster, together, toward a health system designed for everyone.



A Catalyst for Systems Change

OUR FULL PORTFOLIO



Through our Areas of Activation and Influence, we bring forth ideas and solutions to create a more equitable, accessible, and integrated health system for everyone.

Presenters

EXPLORING THE WICKED PROBLEM OF THE ORAL HEALTH CARE SYSTEM:

Measurement

April 15, 2021, 1pm - 2pm EST



Jill Boylston Herndon, PhD

Managing Member & Principal Consultant Key Analytics and Consulting, LLC



Amy Martin, DrPH, MSPH

Professor and Chair for the Department of Stomatology and the Director for the Division of Population Oral Health at the James B. Edwards College of Dental Medicine



Tess Draper Bruner, RDH, BS

Clinical Integration Trainer, DentaQuest

Exploring the Wicked Problem of the Oral Health Care System: Measurement

Advancing Value in Oral Health through Meaningful Measurement

Jill Boylston Herndon, PhD (presenter)

Craig W. Amundson, DDS

Diptee Ojha, BDS, PhD

Mark Koday, DDS

CareQuest Institute for Oral Health Webinar

April 15, 2021

Learning Objectives

- Gain understanding on the existing state of measurement in dentistry
- Gain understanding on the DQA measure development process and guidance for vetting the use of measures in value-based purchasing applications
- Identify critical factors necessary for the application of measurement to value-based purchasing
- Gain knowledge on a potential path forward for applying measures to value-based purchasing and accountability models

The role of measurement in value-based care

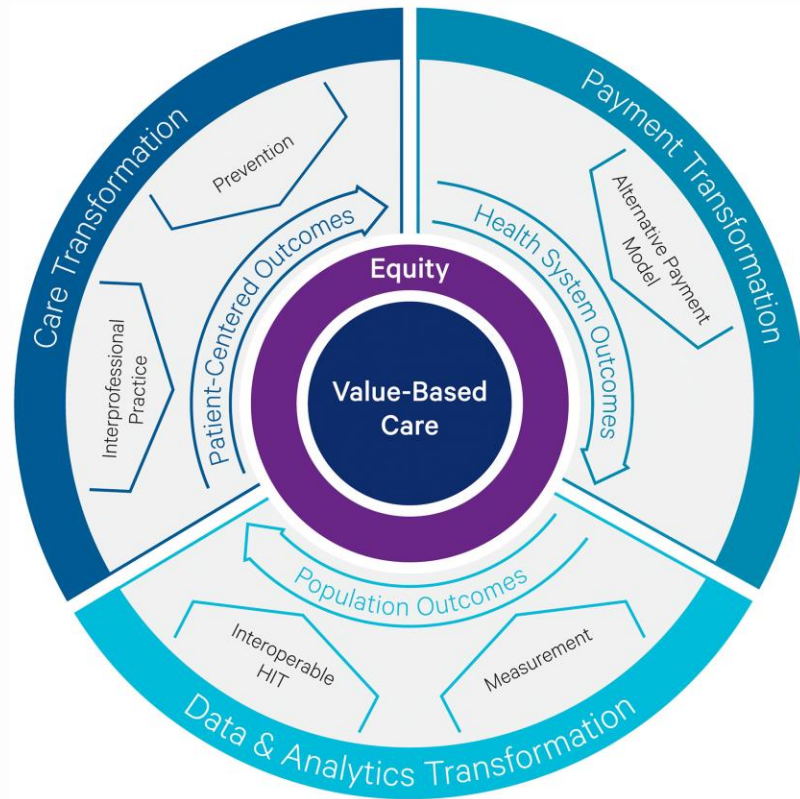


Image from: Frantsev-Hawley J, Mathews R, Brown C. "The Wicked Problem of the Oral Health System." *Journal of Public Health Dentistry*, Volume: 80, Issue: S2, Pages: S5-S7, First published: 11 December 2020, DOI: (10.1111/jphd.12424)

Measurement is used to assess:

- Current status of care quality and health
- Whether outcome goals are being met
- Disparities in care quality and outcomes
- Improvements in access, care, quality, outcomes and cost savings that form the basis for reimbursement in alternative payment models

Synopsis of measurement in dentistry: where we were

IOM (2011), *Advancing Oral Health In America*, Key Findings and Conclusions

“Oral health lags significantly behind the remainder of the health care system in developing quality measures, and as a result, little is known about the quality of oral health care.”



U.S. Department of Health and Human Services

Centers for Medicare & Medicaid Services

2008 NATIONAL DENTAL SUMMARY

January 2009

Dental Quality Alliance: CMS is interested in forming a Dental Quality Alliance (DQA) and is currently in discussions with the American Dental Association (ADA) to begin this process. The DQA would bring together parties from many aspects of oral health fields including national dental organizations, Federal and State partners, payers and consumers to begin working together on measurements that could be used by States for purposes of improving the delivery of oral health services and the development of quality measures. These measures could ultimately be used to enhance reporting on the CMS form 416 or through state-based value based purchasing initiatives. While children eligible for Medicaid will be the primary area of concern, the DQA will also address dental services for the adult population.

Synopsis of measurement in dentistry: where we are

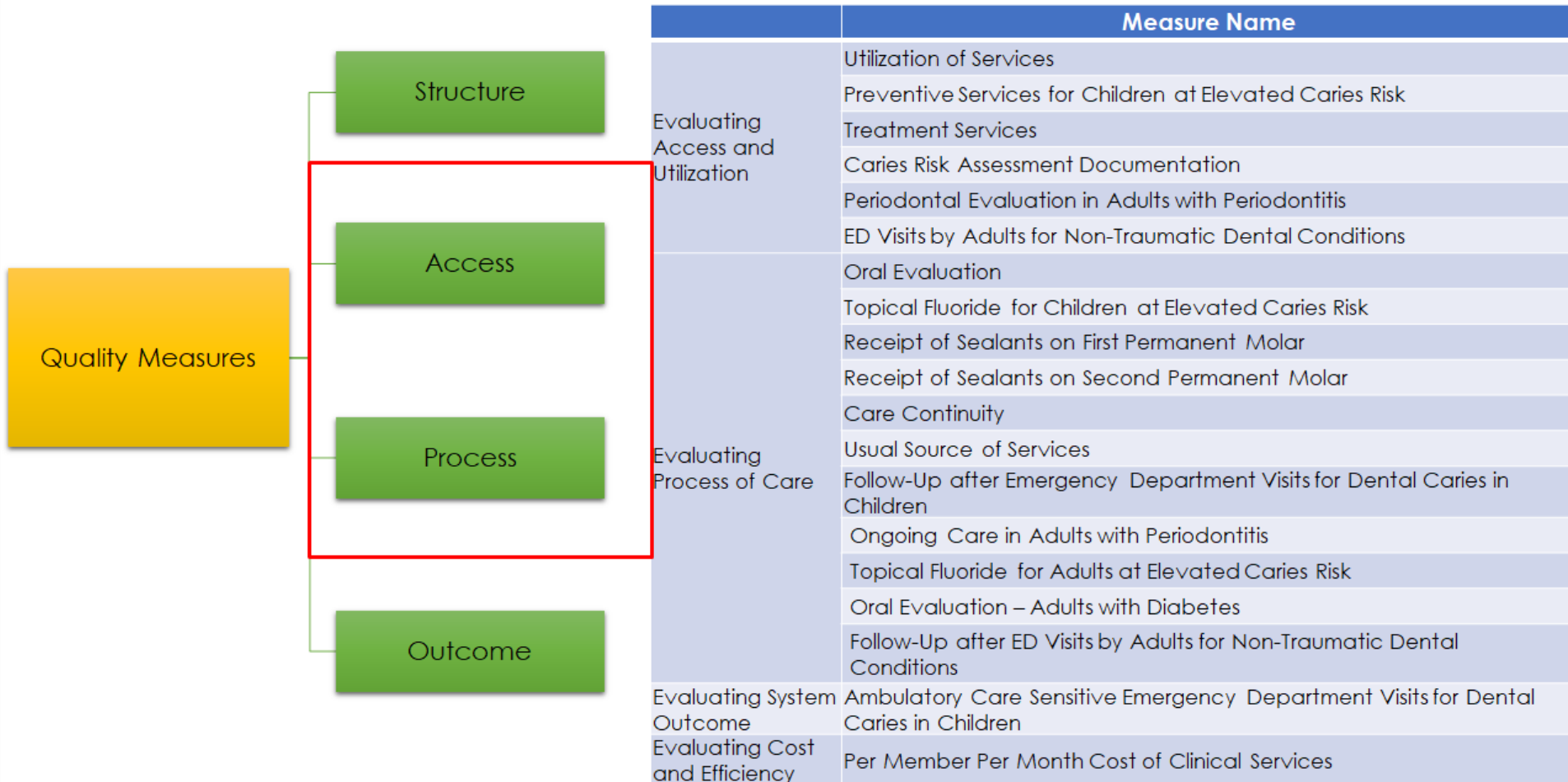
Validated Measures

| |
|--|
| Utilization of Services |
| Preventive Services for Children at Elevated Caries Risk |
| Treatment Services |
| Caries Risk Assessment Documentation |
| Oral Evaluation |
| Topical Fluoride for Children/Adults at Elevated Caries Risk |
| Receipt of Sealants on First Permanent Molar |
| Receipt of Sealants on Second Permanent Molar |
| Care Continuity |
| Usual Source of Services |
| Oral Evaluation – Adults with Diabetes |
| Periodontal Evaluation in Adults with Periodontitis |
| Ongoing Care in Adults with Periodontitis |
| Follow-Up after ED Visit by Children/Adults |
| Per Member Per Month Cost of Clinical Services |

Used for QI, Public Reporting, and Payment Programs: Examples

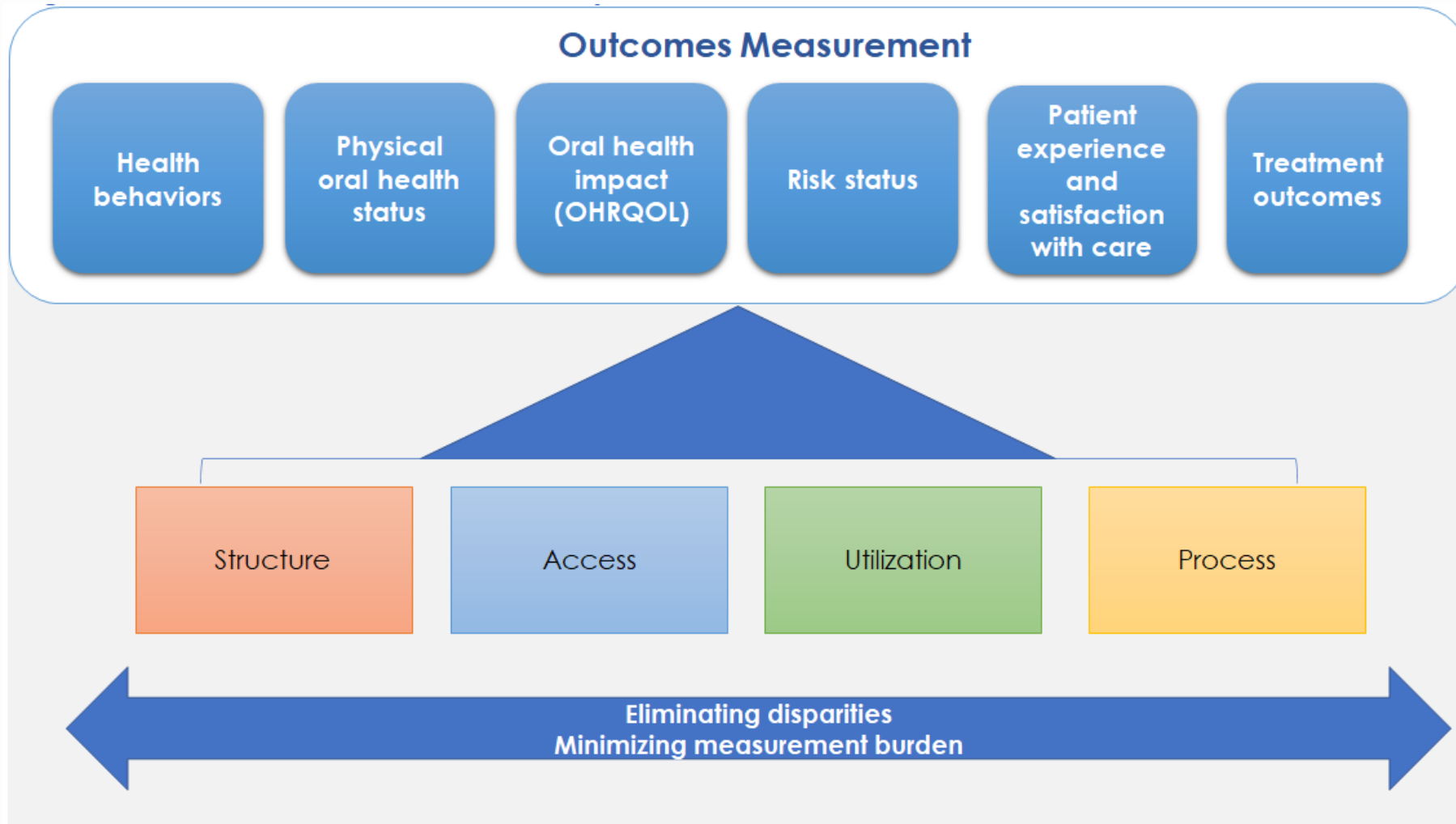
| |
|--|
| Centers for Medicare & Medicaid Services: Medicaid and CHIP Child Core Set |
| Health Resources & Services Administration: Uniform Data System Reporting |
| Covered California – Health Benefit Exchange, Plan Contracts |
| Massachusetts Delivery System Reform Incentive Payment |
| Oregon Health Authority (Payment Program, Public Reporting, QI) |
| Michigan Healthy Kids Dental, Dental Plan Request for Proposals (RFP)/Contract |
| Florida Medicaid, Dental Plan RFP/Contract |
| Texas Medicaid and CHIP, Plan Contracts |

Measurement in dentistry: where we are



Measurement in dentistry: where we are headed

Outcome measures, especially those most meaningful to patients, are essential to measuring value.



Patient-Reported Outcomes for Healthcare System Performance Measurement

Report of the patient's **health status, health behavior, experience with health care, or satisfaction with health care** that comes directly from the patient¹⁰

Result of healthcare structures and processes

Supported by **evidence** that the healthcare system can influence the outcome



Oral health status: The ability to speak, smile, smell, taste, touch, chew, swallow and convey a range of emotions through facial expressions with confidence and without pain, discomfort and disease of the craniofacial complex.²¹

Disease and condition impact (includes symptom burden)

Disease and condition status (includes symptoms)

Health behaviors: Actions taken by individuals that affect health or mortality. These actions may be intentional or unintentional and can promote or detract from the health of the actor or others.²²
Experience with health care: Patient report of observations of and participation in health care;²³ assessment about whether something that should happen in a health care setting actually happened or how often it happened.²⁴
Satisfaction with health care: Patient report about whether a patient's *expectations* about a health encounter were met.²⁴

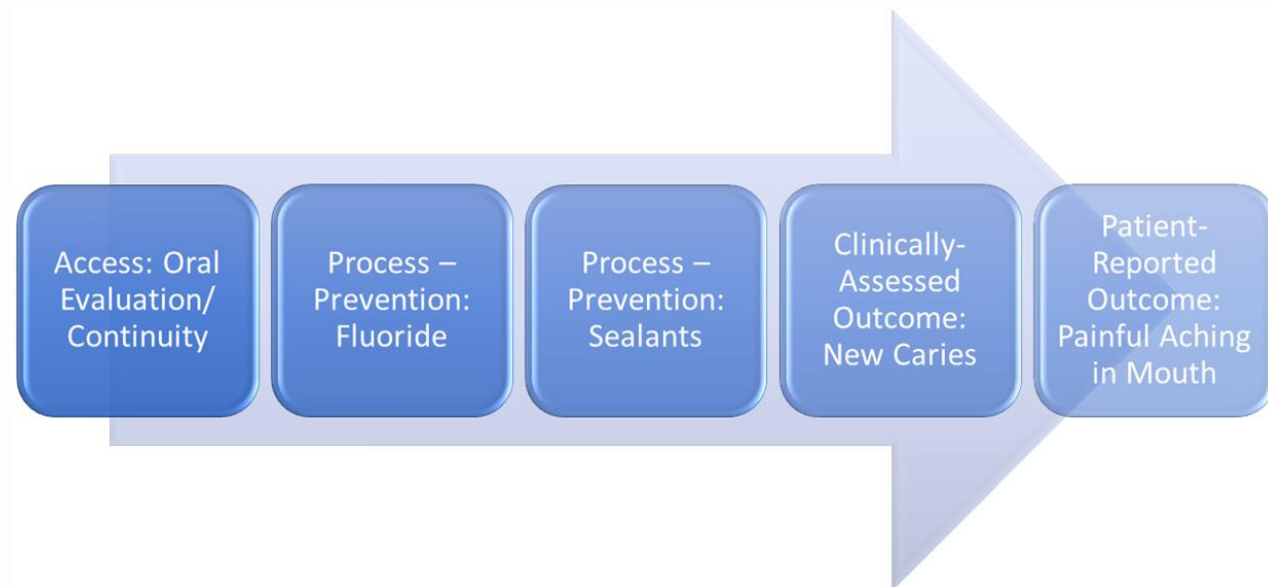
Current Challenges in Outcomes-Based Measurement in Dentistry

- **Clinically assessed outcomes:** lack of routine capture of standardized diagnostic codes
- **Patient-reported outcomes:**
 - Need for validation of patient-reported outcome *performance measures* in clinical quality applications [[DQA PRO Environmental Scan](#)]
 - Implementation feasibility and burden
- Lack of **integrated and accessible health information systems**
- Lack of data and methodology to **account for patient characteristics** that balances ensuring fair comparisons between providers and promoting health equity
- Need for more **high-quality evidence** to support linkages between oral healthcare interventions and patient outcomes

The Path Forward

Begin payment reform with currently validated measures:
link some portion of payment or financial incentives to
performance targets

- Identify care goal.
- Identify validated measures aligned with goal.
- Ensure implementation feasibility, reliability and validity (data availability and quality are key!).
- Monitor for progress on meeting care goal and for unintended consequences.

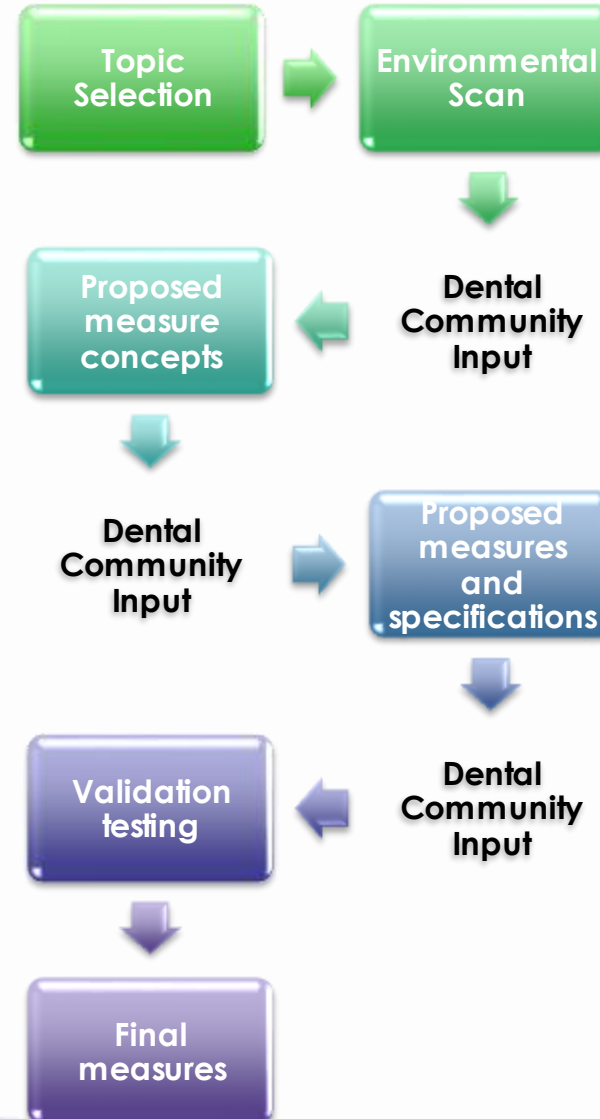


Ensuring Quality of Quality Measures

Validated measures undergo significant vetting process to ensure:

- Supported by evidence that care system can influence desired outcomes
- Feasible to implement without undue burden
- Consistent implementation (reliability)
- Measures what it purports to measure (validity)

DQA Measure Development Process



Note: Measures evolve over time – e.g., to reflect changes in evidence, data availability, and usability.

Implementation: Cautionary Notes



Using measures in applications linking payment to performance:

- Even well-tested measures should undergo **local** evaluation to ensure local implementation feasibility, reliability and validity.
- **Payment application** of measures should undergo **careful vetting prior to implementation**. The [DQA User Guides](#) advise using historical data to:
 - Gain experience with measure implementation
 - Establish baseline values
 - Engage stakeholders, especially those being measured, in the development of the payment program and setting performance targets
 - Test the specific methodology used to link payment to performance to ensure it supports the intended goals
- Evaluate and engage in ongoing monitoring for **unintended consequences**.

Moving in the Right Direction: Current Initiatives

- Adoption of validated dental quality measures at the **program and plan level**
 - Federal quality reporting programs
 - State programs, including payment applications
- Growing interest in practice-level performance dashboards, benchmarking, P4P
 - Public reporting (e.g., Wisconsin Healthcare Quality Collaborative)
 - Internal QI and/or payment programs (e.g., HealthPartners, Kaiser Permanente, Marshfield)
- ADA Clinical Data Registry
 - Provides infrastructure for **practice-level measurement** and benchmarking
 - Designed to be **aligned** with existing program and plan level dental quality measures
- Efforts underway to validate dental PROs for use in QI applications
 - PROMIS
 - ICHOM

The Ultimate Goal: Did we improve health and well-being?

- Clinical healthcare outcomes
 - Functional Status
 - Disease Status
 - Risk Status
- Patient-reported health outcomes
- Patient experience
- Patient engagement



Questions? Comments?

- Contact the DQA via email: dqa@ada.org
- Explore the DQA website: www.ada.org/dqa

Explore the DQA



Educational Resources



Improvement Resources



Measure Activities



Measures: Medicaid and
Dental Plan Assessments



Measures: Practice
Assessments



Electronic Pediatric
Measures

Thank you!

Demonstration of payer readiness for VBC in a FFS environment: Measuring provider performance on sealant delivery

Amy Martin, DrPH, MSPH

Chair & Professor, Department of Stomatology

Director, Division of Population Oral Health



Authorship & Disclosure

J Public Health Dent . ISSN 0022-4006

ORIGINAL RESEARCH

Demonstration of payer readiness for value-based care in a fee-for-service environment: Measuring provider performance on sealant delivery

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² SC Department of Health and Human Services, Columbia, SC, USA
³ Medical University of South Carolina, USA

Keywords
pit and fissure sealants; dental care for children; preventive dentistry; evidence-based dentistry; Medicaid; quality of care; data analysis.

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doi: 10.1111/jphd.12414
J Public Health Dent 80 (2020) 550-557

Introduction
Measurement of value-based care (VBC) for oral health has focused on assessing its impact on patient outcomes.¹ Available frameworks and readiness concepts for VBC participation included measures at both patient and population-levels and were intended for health-care providers and health systems.² Patient outcomes are the ultimate evidence that a health system effectively espouses VBC characteristics. There is, however, a measurement chasm in dentistry linking provider performance to patient outcomes. Many state Medicaid programs continue to operate dental programs as fee-for-service. If those programs wish to implement VBC models for dental services, then it is essential they be able to measure provider performance as that is the only unit of change that can be influenced in the fee-for-service model. As will be demonstrated in this current paper, South Carolina began exploring patient and population outcomes that might serve as reasonable proxies of value in dental care delivery for children. One outcome explored was receipt of dental sealants.

Abstract
Objectives: Previously published sealant measures are not useful when applied to Medicaid claims data in states where dental services are carved out of managed care. A novel sealant measure was developed to assess the degree to which dental providers seal eligible teeth during preventive dental visits (PDVs) in an effort to ascertain if such a measure can be used to evaluate provider performance, as condition of potential value-based care model implementation.
Methods: A single-county feasibility study was conducted using Medicaid claims. A study cohort included children aged 8 years and enrolled 12 months during 2018. Prospective analysis was used to determine whether dental sealants were applied by the same dentists during PDVs or up to 9 months thereafter. Eligible teeth included first permanent molars. Teeth previously restored, sealed or missing were excluded. PDV was defined as any encounter with prophylaxis, fluoride treatment, or EPSDT. Claims were compared to public health surveillance for measurement validation.
Results: Single-county results showed 11 percent of eligible teeth were sealed. Only 9 percent of dentists applied sealants to at least 40 percent of eligible teeth. Face validation of sealant rate was 23 percent Medicaid versus 36 percent Public Health. The former measures incidence and the latter prevalence with greater heterogeneity that included partially retained sealants.
Conclusions: A sealant measure that assesses provider adherence to sealant standards of care was produced. It has potential application for assessing performance of pediatric preventive services and informing value-based performance expectations.

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²SCDHHS

Analysis was financially supported by a contract from SC Department of Health and Human Services to the Medical University of South Carolina

Purpose



- We reframed the discussion of quality measurement to focus on **provider performance, not sealant prevalence.**
- A novel provider performance measure (NPPM) was pilot-tested to assess the degree to which dental providers sealed eligible teeth during or shortly after preventive dental visits (PDVs).
- A single-county feasibility assessment of the NPPM was conducted to evaluate performance for VBC.

Photo Credit: <https://www.cdc.gov/oralhealth/images/Sealants-3-image-500px.jpg>

Assumptions

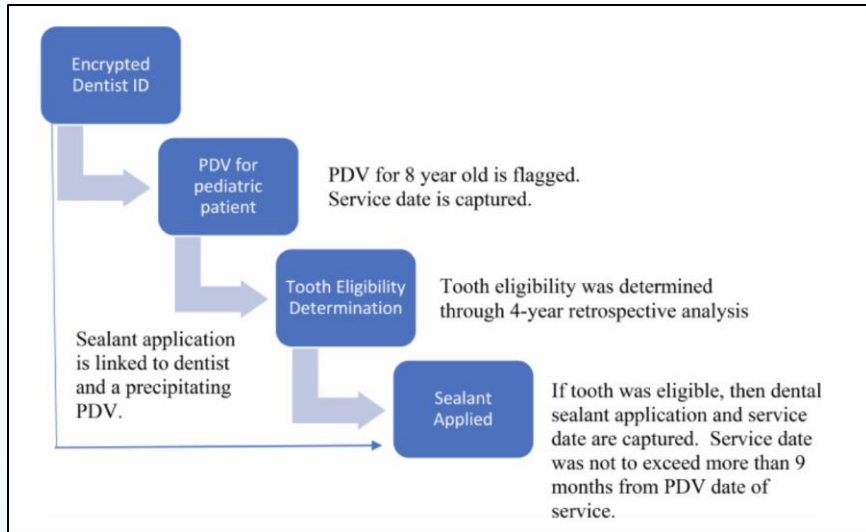
- Assumption 1: Must use validated data as that is (a) accessible, (b) affordable, (c) validated/consistent across all states. (Medicaid claims data)
- Assumption 2: Measuring provider performance controls for extraneous influences such as eligibility and health plan policies because provider behavior should be guided by standards of care, not reimbursement levels or eligibility.
- Assumption 3: Measuring quality is assessing provider adherence to a standard of care.
 - “When presented with the opportunity to seal an ‘eligible’ tooth, did the provider deliver services in keeping with the clinical standard of care?” (Provider performance measure)

“Test” County: Charleston



- More than 400K residents
- Nearly 20% less than 18
- Only 65% White alone
- 1300 bridges

Methods: NPPM Operationalization



| Dentists | PDV Services | Children | Eligible Teeth* | Sealants |
|---|--|---|---|---|
| (n=75) Rendering National Provider Identifier (NPI) was used to unduplicate general & pediatric dentists | Prophylaxis (n=2,057) Fluoride treatment (n=469) EPSDT (n=2,135) | (n=1,894) Included children aged 8 years during 7/1/2017 through 6/30/2018 and 12 months of enrollment | Eligible teeth determined through a 4-yr retrospective analysis: #3 (n=1,031) #14 (n=1,055) #19 (n=1,013) #30 (n=1,013) | Sealant application was linked to dentist and a precipitating PDV |

**Teeth previously restored, filled, sealed or missing were excluded. More than half (54.3%) were ineligible*

Face Validity?

Medicaid Claims Data

Incidence Measure

- 8 YO enrolled in Medicaid
- Charleston County residents
- 23% of cohort got sealants

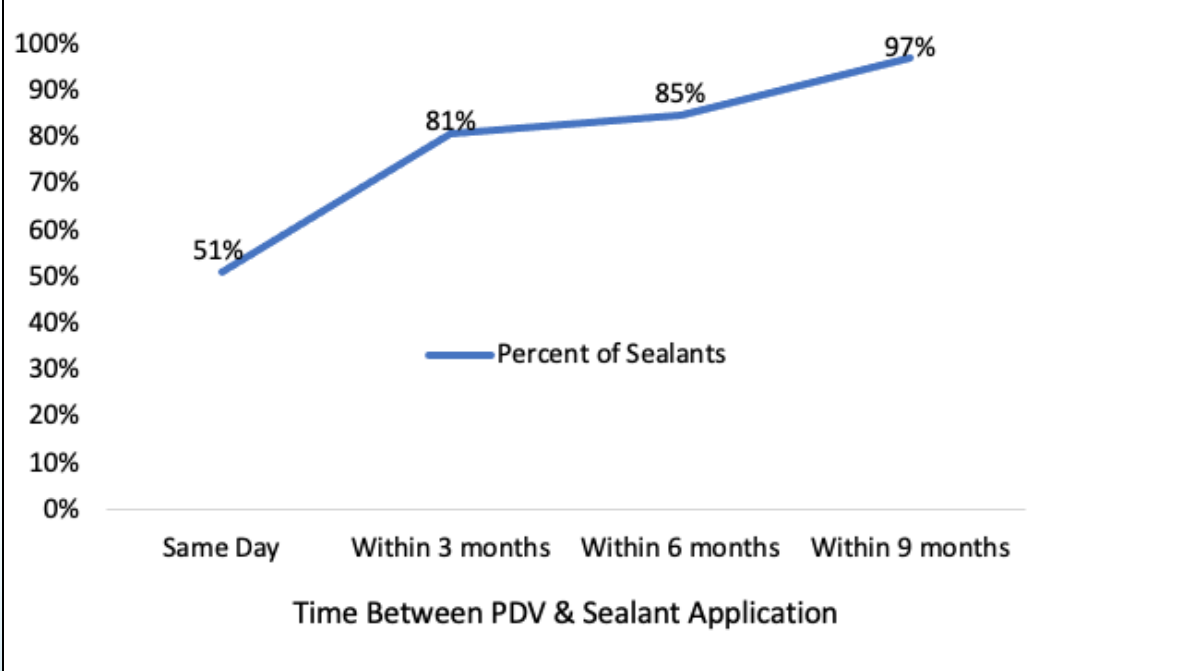
SC Public Health Surveillance Data

Prevalence Measure

- 3rd graders in six Schools (8 and 9 YOs)
- Charleston County residents
- 36% of cohort got sealants

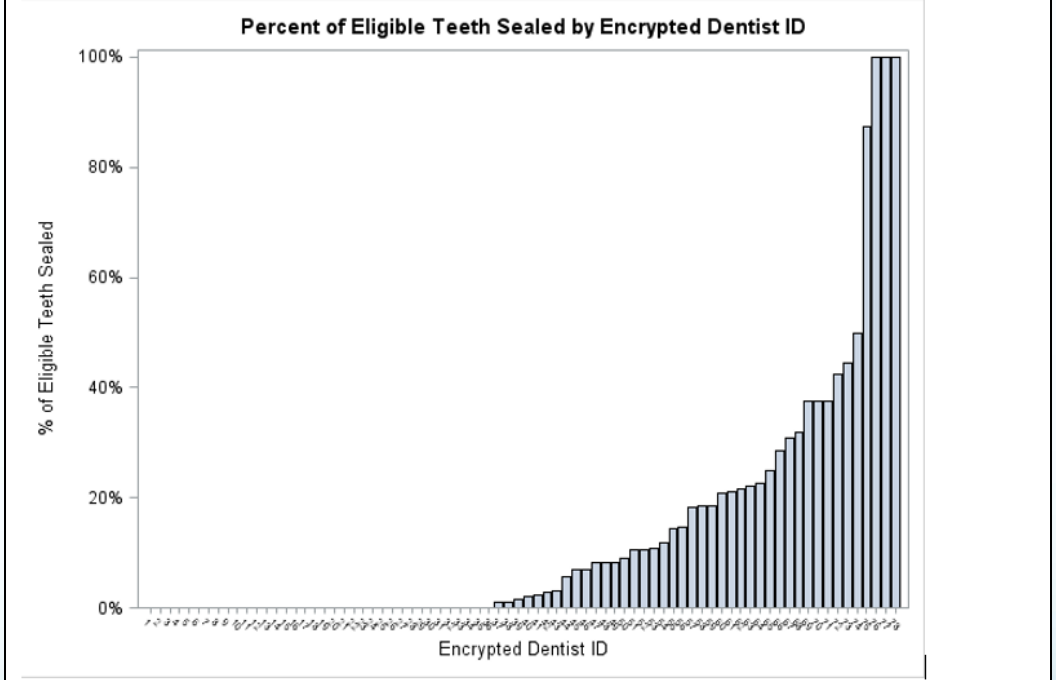
Results

Figure 2. Percent of Sealants Applied in Proximity to PDVs



Only 11.4% of eligible teeth were sealed. Half were done same day and the rest as late as 9 months later

Figure 3. Distribution of Individual Charleston County Dentists by Percent of Eligible Teeth Sealed, SFY2018 (Feasibility Study)



Nine percent of dentists sealed at least 40% of eligible teeth

Conclusions

The Good News

- The NPPM is a useful approach for measuring provider performance.
- The ability to identify these top-performers confirms that VBC can be reimbursed to individual providers based on standard of care compliance, such as sealant delivery.

The Bad News

- The COVID-19 pandemic negatively impacted sealant improvement efforts.
- Most school-based sealant programs were suspended, and practice-based preventive care has been deferred.
- VBC reimbursement becomes more challenging when historical events confound the marketplace.

Next Steps for SC

- Annual statewide reporting at the NPI-level.
- Continued discussions on the implications for VBC reimbursement



Photo Credit:

<https://scdhec.gov/health/oral-health/child-and-teen-oral-health>

Thank you!



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Advantage Dental Oral Health Center

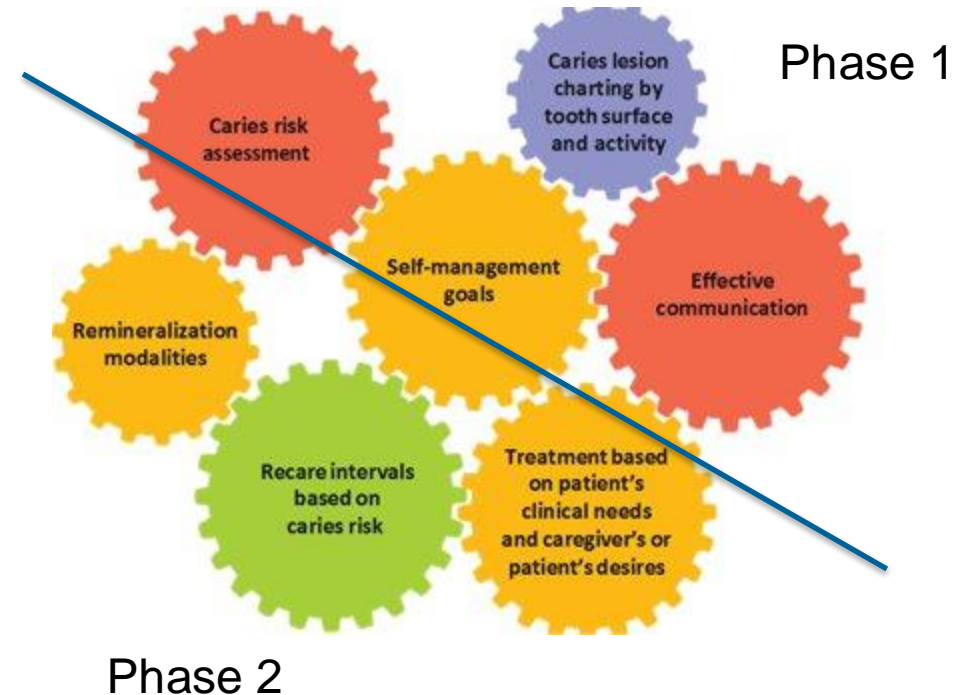


Caries Disease Management Pilot Project

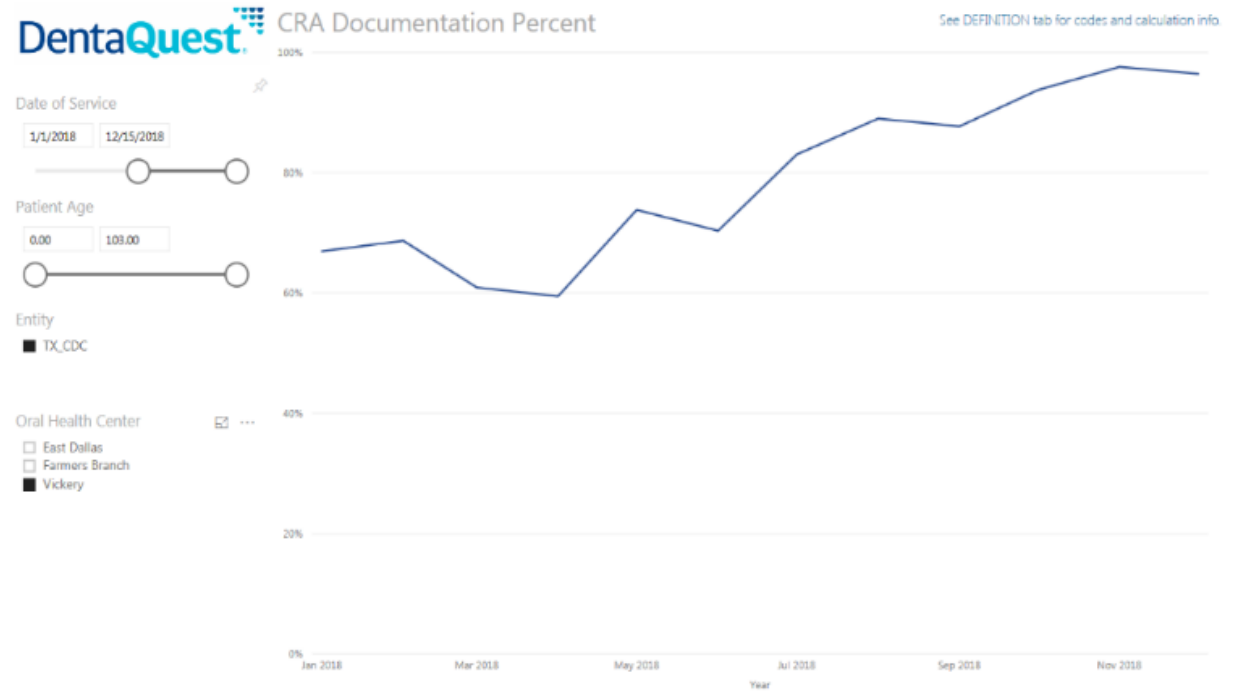
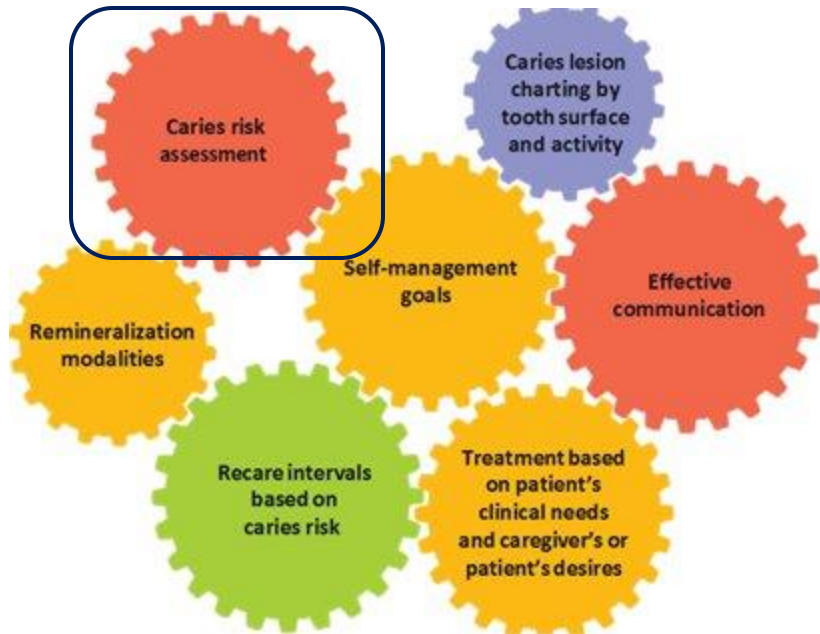
Improve the patient experience
and oral health

Create positive rapport with
patients and their parents

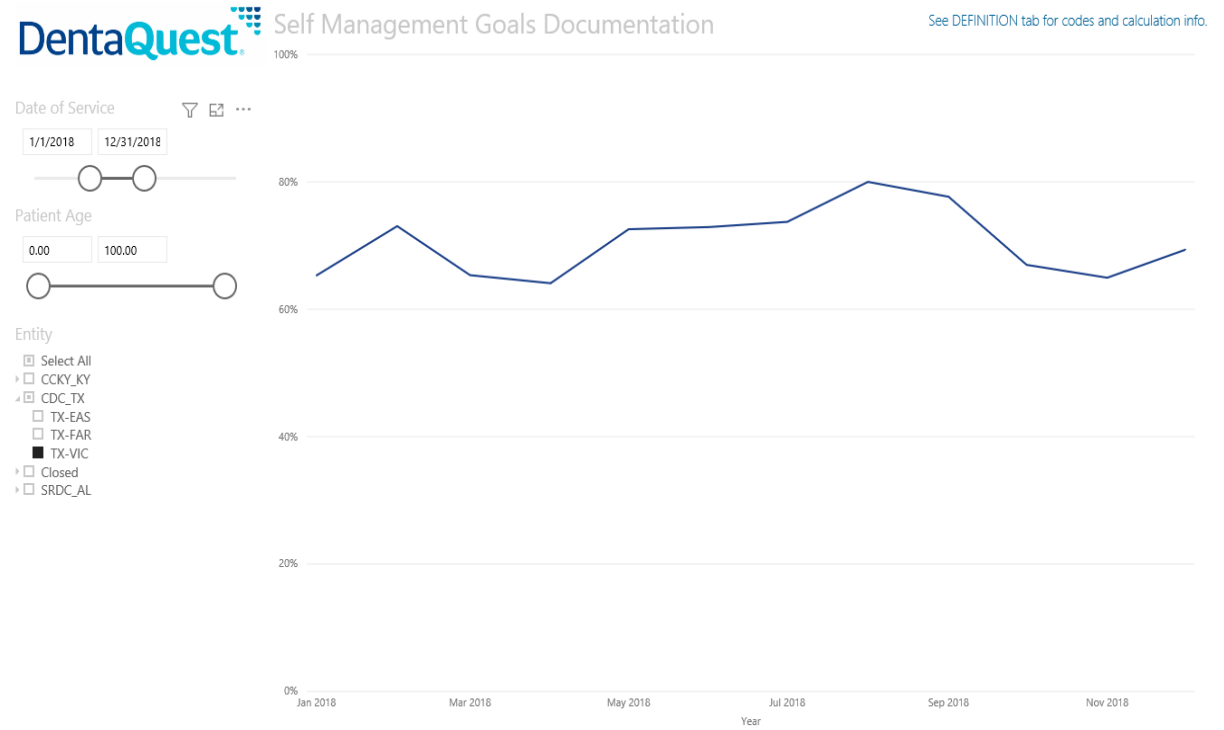
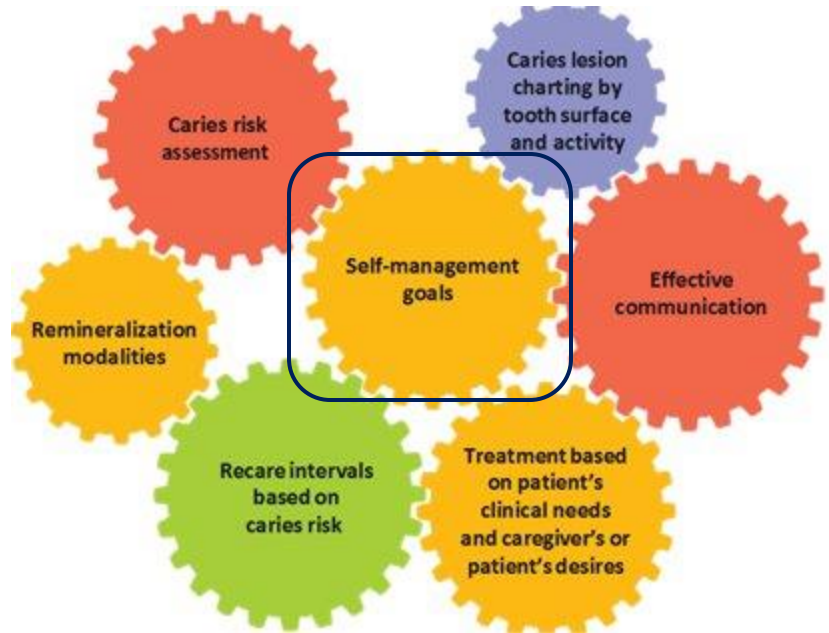
Implement care processes that
are customized to the unique needs
of patients



Measurement Phase 1 Metrics



Measurement Phase 1 Metrics



Lessons Learned

Identify the driving force behind adopting a disease management model.

-How will you measure your goal and define success?

Identify operational and clinical champions of the work to engage all members of the team.

-Everyone has a role in quality improvement work.

Choose simple metrics.

-Can every team member interpret the data?

Be consistent.

-Brief, scheduled meetings show commitment to change.

Advantage Dental 
Oral Health Center

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Questions

Where Can I Learn More About the Special Issue?

The Wicked Problem of the Oral Health Care System

A special edition of the *Journal of Public Health Dentistry* is dedicated to increasing awareness and education about value-based care (VBC) and the journey to systems change within oral health care. CareQuest Institute for Oral Health served as the guest editorial board, identifying and selecting key articles that advance VBC awareness and illustrate the need for oral health care transformation.

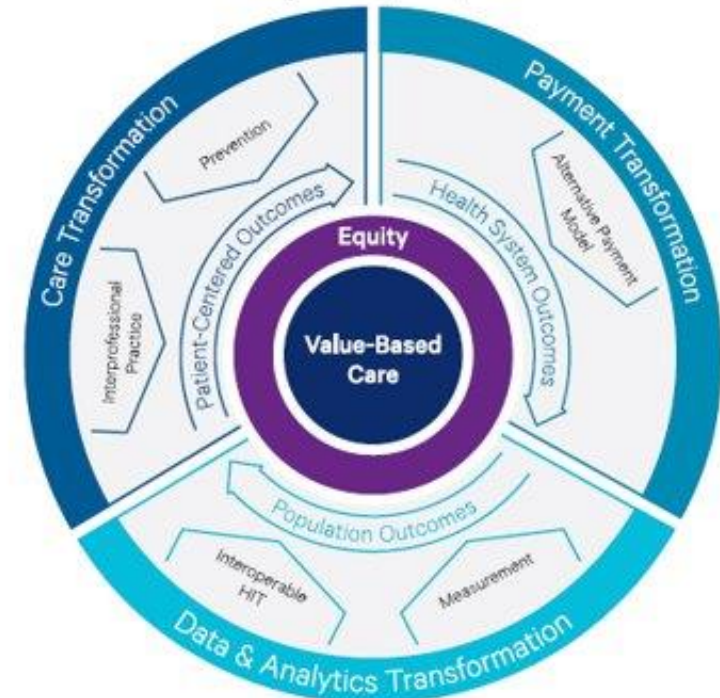
In 1973, two *Policy Science* authors coined the phrase a *wicked problem* – one that is complex, hard to define, involves multiple stakeholders and is interconnected with other problems.

Oral Health Care is a Wicked Problem. Value-Based Care Can Help to Solve it.



<https://www.carequest.org/education/resource-library/wicked-problem-oral-health-care-system>

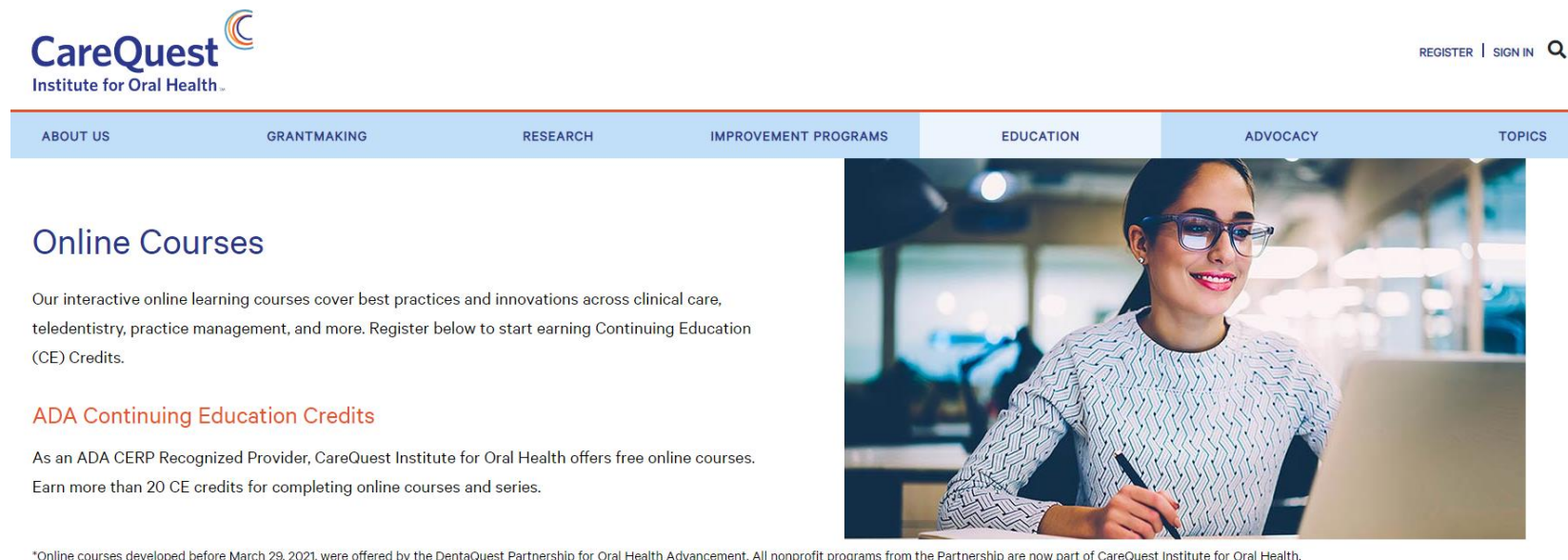
A System Ripe for Change: Progressing Value-Based Care in Oral Health
Guest Editors: Julie Frantsve-Hawley, PhD, CAE
Rebekah Mathews, MPA
Carolyn Brown, DDS, MA



<https://onlinelibrary.wiley.com/toc/17527325/2020/80/S2>

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The screenshot shows the CareQuest Institute for Oral Health website. The header includes the logo, navigation links (REGISTER | SIGN IN), and a search icon. The main navigation bar has tabs for ABOUT US, GRANTMAKING, RESEARCH, IMPROVEMENT PROGRAMS, EDUCATION, ADVOCACY, and TOPICS. The 'Education' tab is active. The 'Online Courses' section features a heading, a paragraph about interactive learning, and a sub-section for 'ADA Continuing Education Credits' with a paragraph about free courses and CE credits. A photograph of a woman with glasses working at a laptop is on the right. A footer note mentions that online courses developed before March 29, 2021, were offered by the DentaQuest Partnership.

CareQuest
Institute for Oral Health

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As an ADA CERP Recognized Provider, CareQuest Institute for Oral Health offers free online courses. Earn more than 20 CE credits for completing online courses and series.

*Online courses developed before March 29, 2021, were offered by the DentaQuest Partnership for Oral Health Advancement. All nonprofit programs from the Partnership are now part of CareQuest Institute for Oral Health.

Webinar Evaluation

<https://www.carequest.org/node/223382>

Must complete by **April 23 in order to receive CE credit*

Upcoming Webinars:

- **Oral Health, Primary Care and the COVID-19 Pandemic**
April 29, 2021

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