

The Dental Quality Alliance's State Oral Healthcare Quality Dashboard: *Leveraging Quality Metrics for Pediatric Oral Health*

Jill Boylston Herndon, PhD

American Academy of Pediatric Dentistry
August 15, 2025

Disclosures

- Dr. Herndon is presenting in her capacity as a methodology consultant to the Dental Quality Alliance.

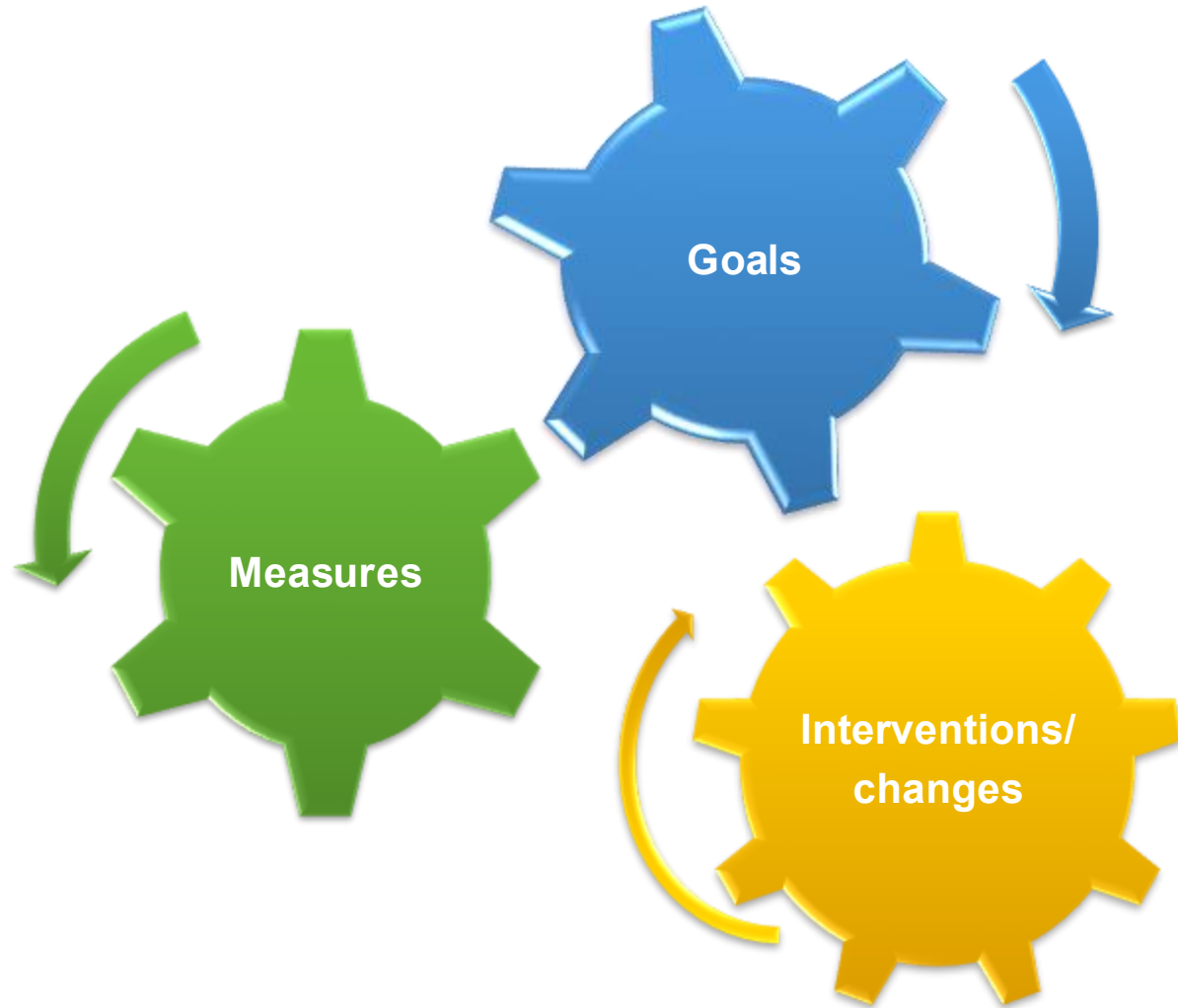
Outline

- Part 1: Background on dental quality measurement and the Dental Quality Alliance (DQA)
 - DQA formation and measure development process
 - Levels of measurement and data sources
 - Milestones and current status of dental measures and adoption
- Part 2: Informing Improvement Efforts - DQA Oral Healthcare Quality Dashboard
 - Selecting measures for improvement
 - DQA dashboard overview
 - Interactive demo of dashboard

Part 1: Brief background on dental quality measurement and the Dental Quality Alliance (DQA)

Why Measures?

Models for Improvement: Commonalities



Example Improvement Goals

- Increase percentage of children established into routine dental care
- Reduce caries-related ED visits
- Improve medical-dental integration

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

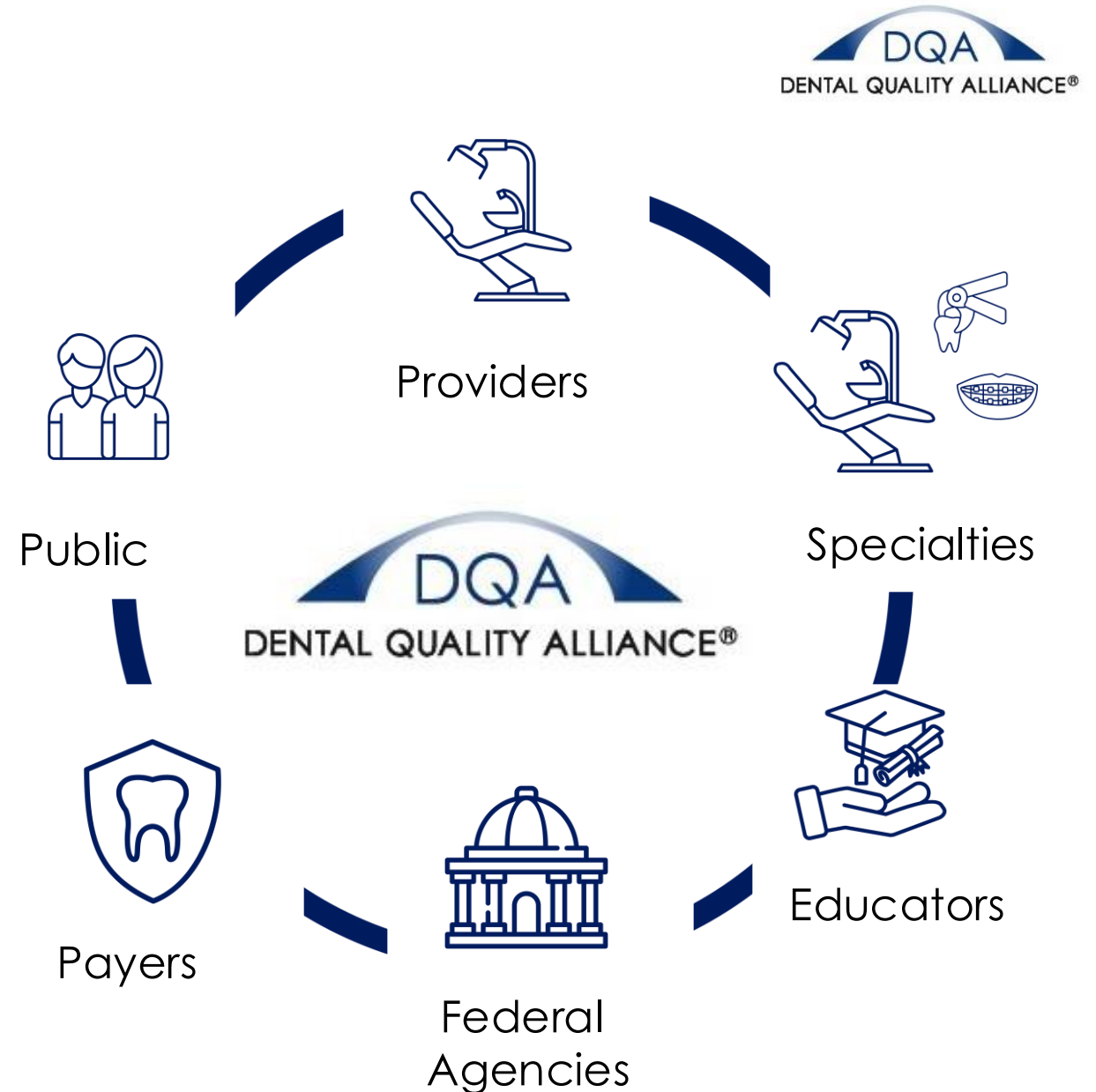
2008 NATIONAL DENTAL SUMMARY

January 2009

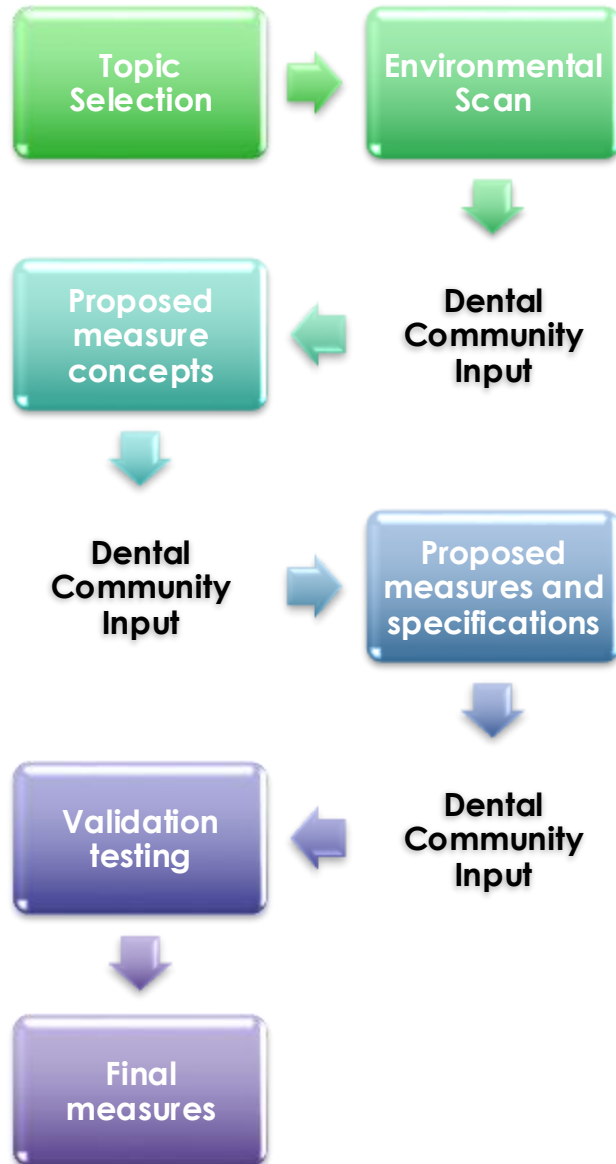
Dental Quality Alliance: CMS is interested in forming a Dental Quality Alliance (DQA) and is currently in discussions with the American Dental Association (ADA) to begin this process. The DQA would bring together parties from many aspects of oral health fields including national dental organizations, 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.

DQA Mission

Advance performance measurement as a means to improve oral health, patient care, and safety through a consensus-building process.



DQA Measure Development Process



Measures

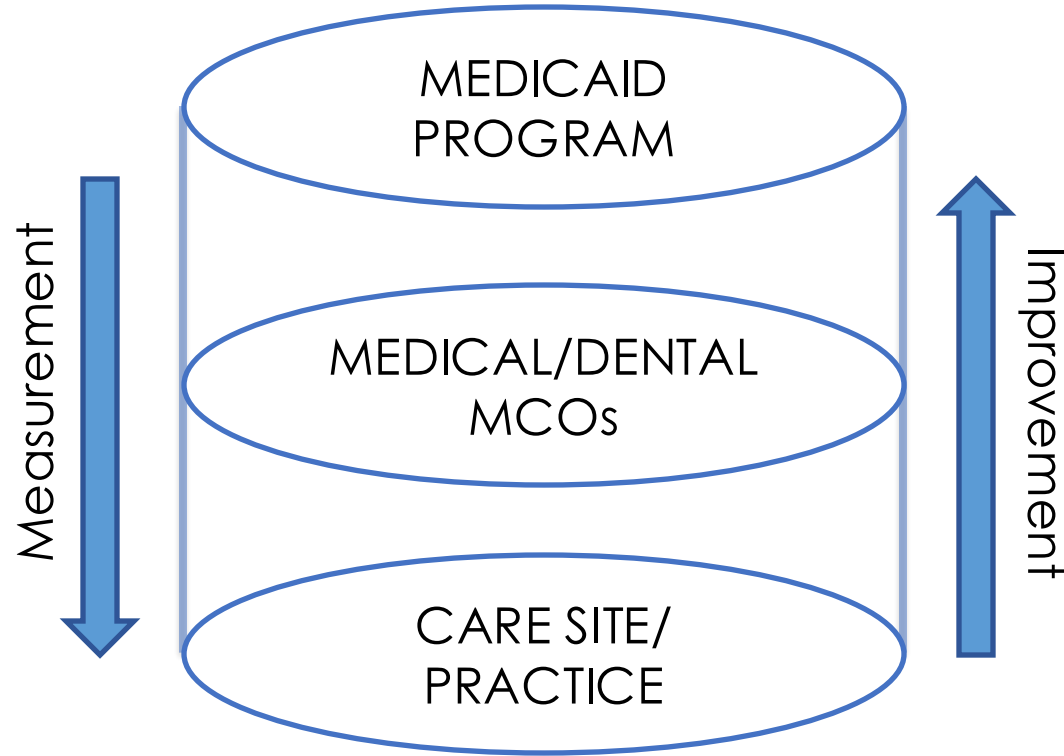
- Important
- Feasible
- Valid and reliable
- Useable

Measure Development Process

- Collaborative
- Transparent
- Objective
- Meaningful

Measurement Starts at the System Level

Improvement Starts at the Care Site



Measurement occurs at different levels of the care system and uses different types of data source.

Who's measured: different levels



% of patients **enrolled in the program (e.g., Medicaid)** who received recommended care



CMS Core Set
DQA Dashboard



% of patients **enrolled in the health plan** who received recommended care



Plan-level reporting
(e.g., Delta Dental, DentaQuest, Liberty Dental, MCNA)



% of patients **in the practice, clinic, health center** who received recommended care



-HRSA UDS reporting
-EDR measures

How's it measured: different data sources

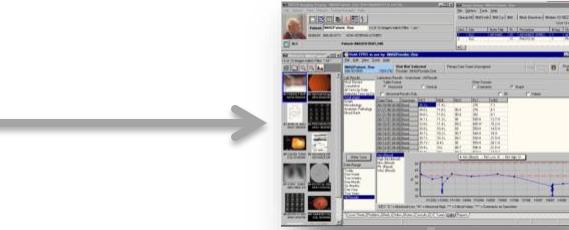
Claims Form



Patient ID	Date	Procedure	Status
1001	10/15/2010	1000000000	Completed
1002	10/16/2010	1000000000	Completed
1003	10/17/2010	1000000000	Completed
1004	10/18/2010	1000000000	Completed
1005	10/19/2010	1000000000	Completed

Administrative Database

(enrollment, claims and encounters;
used for CMS Core Set &
DQA Dashboard)



Health Records
(used for HRSA UDS reports)



Patient Name	Date	Status
John Doe	10/15/2010	Completed
Jane Smith	10/16/2010	Completed
Bob Johnson	10/17/2010	Completed
Alice Brown	10/18/2010	Completed
Charlie White	10/19/2010	Completed

Figure 1. Recall/alert list from implant registries Web site.

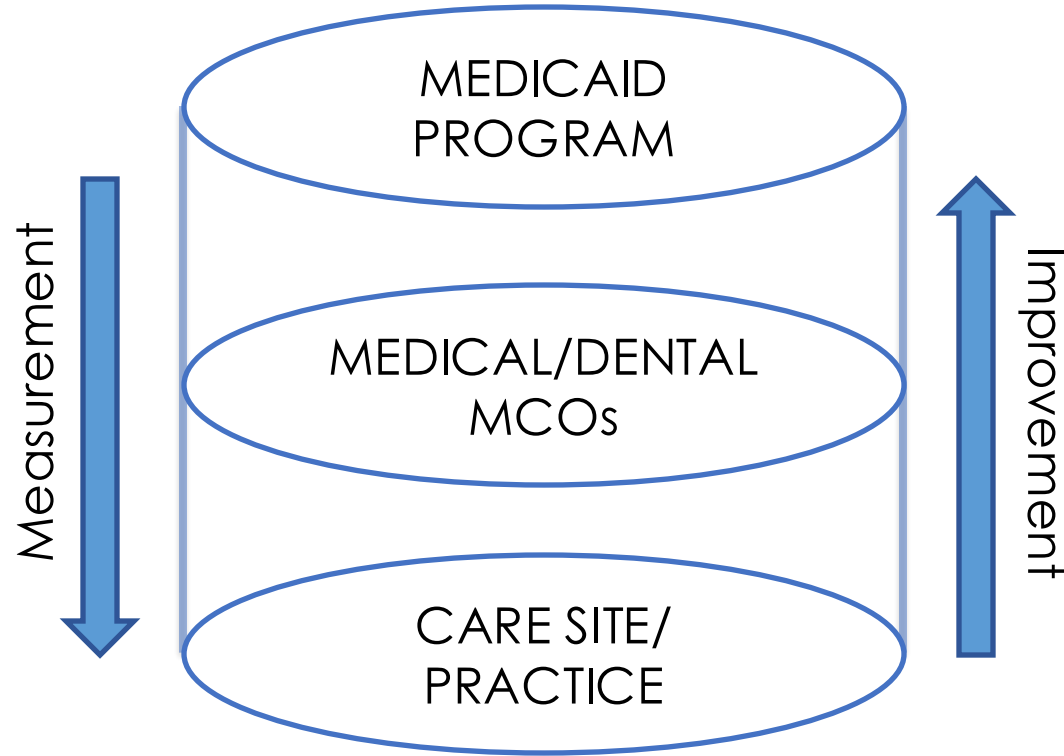
Registries

Patient surveys

(patient reported outcomes, satisfaction,
experience with care and health status)

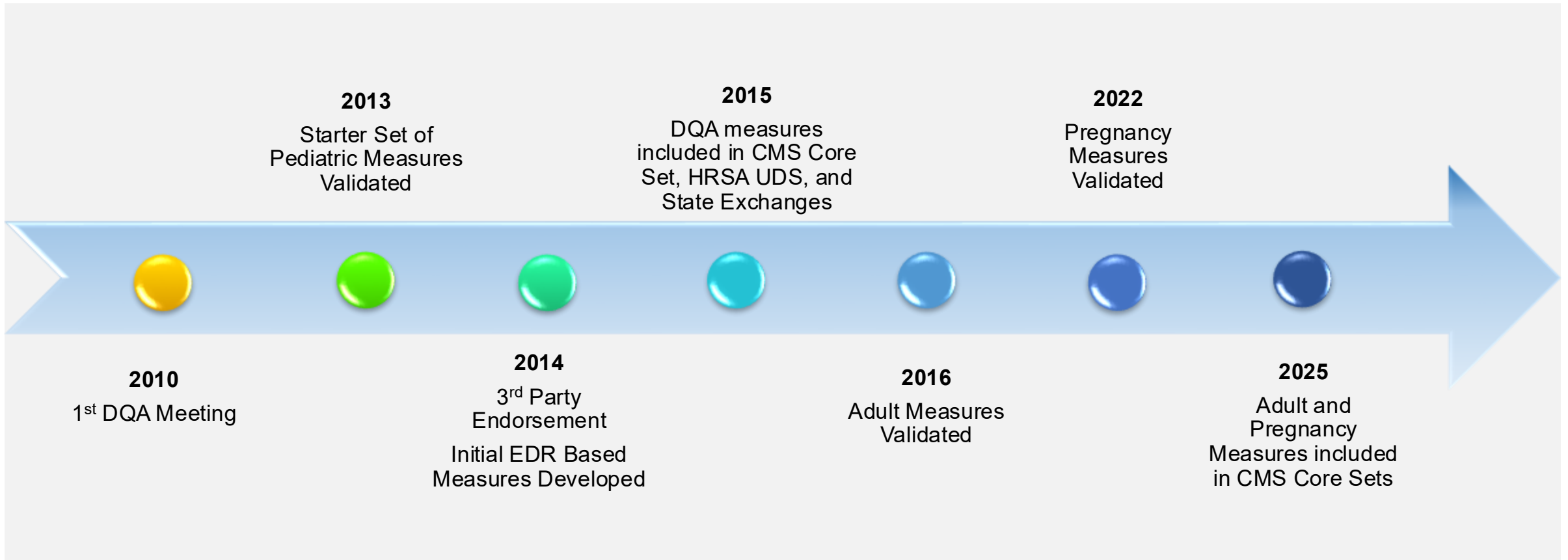
Measurement Starts at the System Level

Improvement Starts at the Care Site



Initial measure development focused on **program and plan** level measures, using claims and enrollment data.

DQA: Milestones



Ongoing activities: New measure development, measure maintenance, implementation guidance, dissemination, support improvement efforts, education

Today: DQA Program and Plan Level Measures



Children	Pregnancy/Adults
Oral Evaluation**	Oral Evaluation During Pregnancy**★
Topical Fluoride for Children*	Utilization of Services During Pregnancy★
Sealant Receipt on Permanent 1 st Molars*	Topical Fluoride for Adults at Elevated Caries Risk
Sealant Receipt on Permanent 2 nd Molars	Oral Evaluation: Adults with Diabetes★
Early Childhood Oral Evaluation by a Dental Provider Following a Medical Preventive Service Visit★	Periodontal Evaluation: Adults with Periodontitis
Care Continuity	Non-Surgical Ongoing Care: Adults with Periodontitis
Ambulatory Care Sensitive ED Visits for Dental Caries★	Ambulatory Care Sensitive ED Visits for Non-Traumatic Dental Conditions*★
Follow-Up After ED Visits for Dental Caries★	Follow-Up after ED Visits for Non-Traumatic Dental Conditions★
Caries Risk Documentation	
Utilization of Services	
Preventive Services	
Treatment Services	
Usual Source of Services	
Per Member Per Month Cost of Clinical Services	

*CMS Child Core Set

*CMS 1945A Health Home Core Set

★Dental-Medical Integration

*CMS 2025 Voluntary Adult Core Set

DQA Measures in CMS Core Sets



Child Core Set

2025, Mandatory reporting

- Oral Evaluation
- Topical Fluoride for Children
- Sealant Receipt on Permanent First Molars

2025, Voluntary;
2026, Mandatory

- Oral Evaluation During Pregnancy: Ages 15-20

Adult Core Set

2025, Voluntary reporting

- Ambulatory Care Sensitive ED Visits for NTDC in Adults
- Oral Evaluation During Pregnancy: Ages 21-44

2027, Recommended (under review still)

- Adults with Diabetes – Oral Evaluation

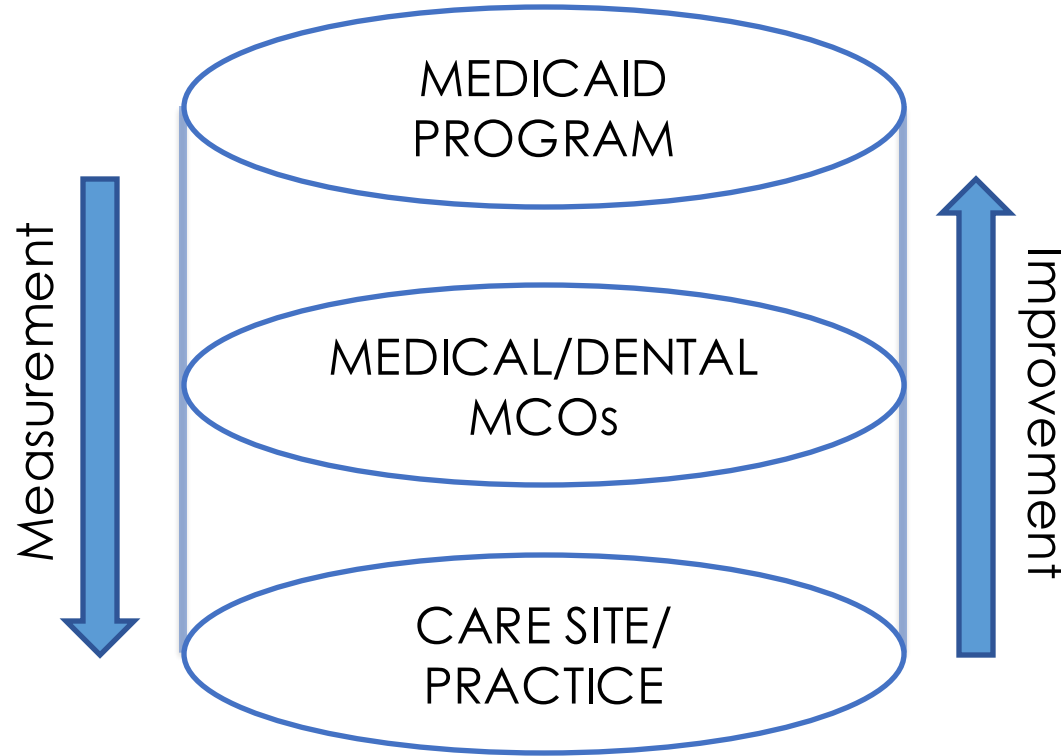
1945A Health Home Core Set

2025, Mandatory reporting

- Oral Evaluation in Children

Measurement Starts at the System Level

Improvement Starts at the Care Site

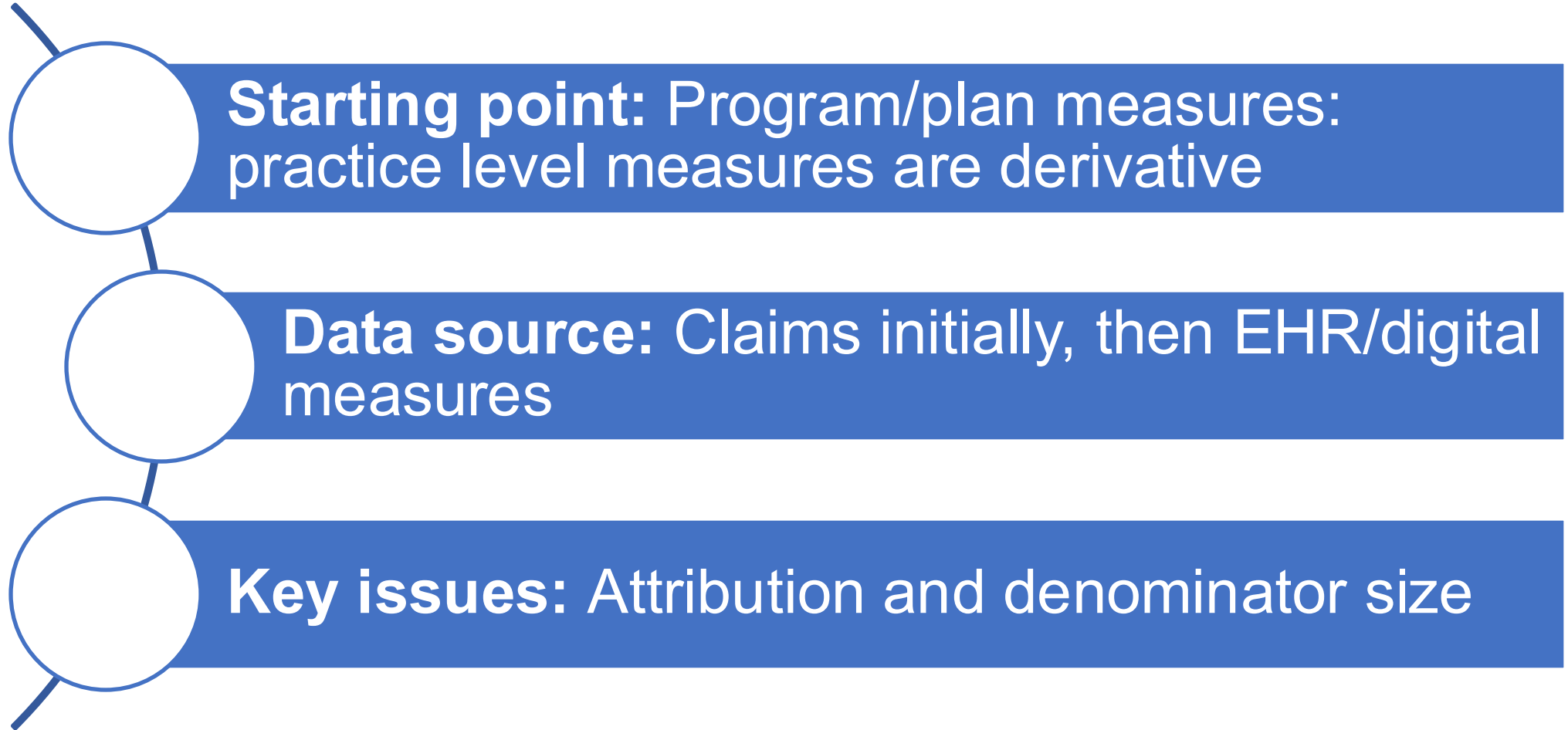


Need harmonized and aligned measures across all levels of measurement – so **practice and clinician** level measurement should align with program and plan level measurement.

DQA Practice and Clinician Based Measures Workgroup



➔ Developing and testing measures for implementation at practice and clinician levels



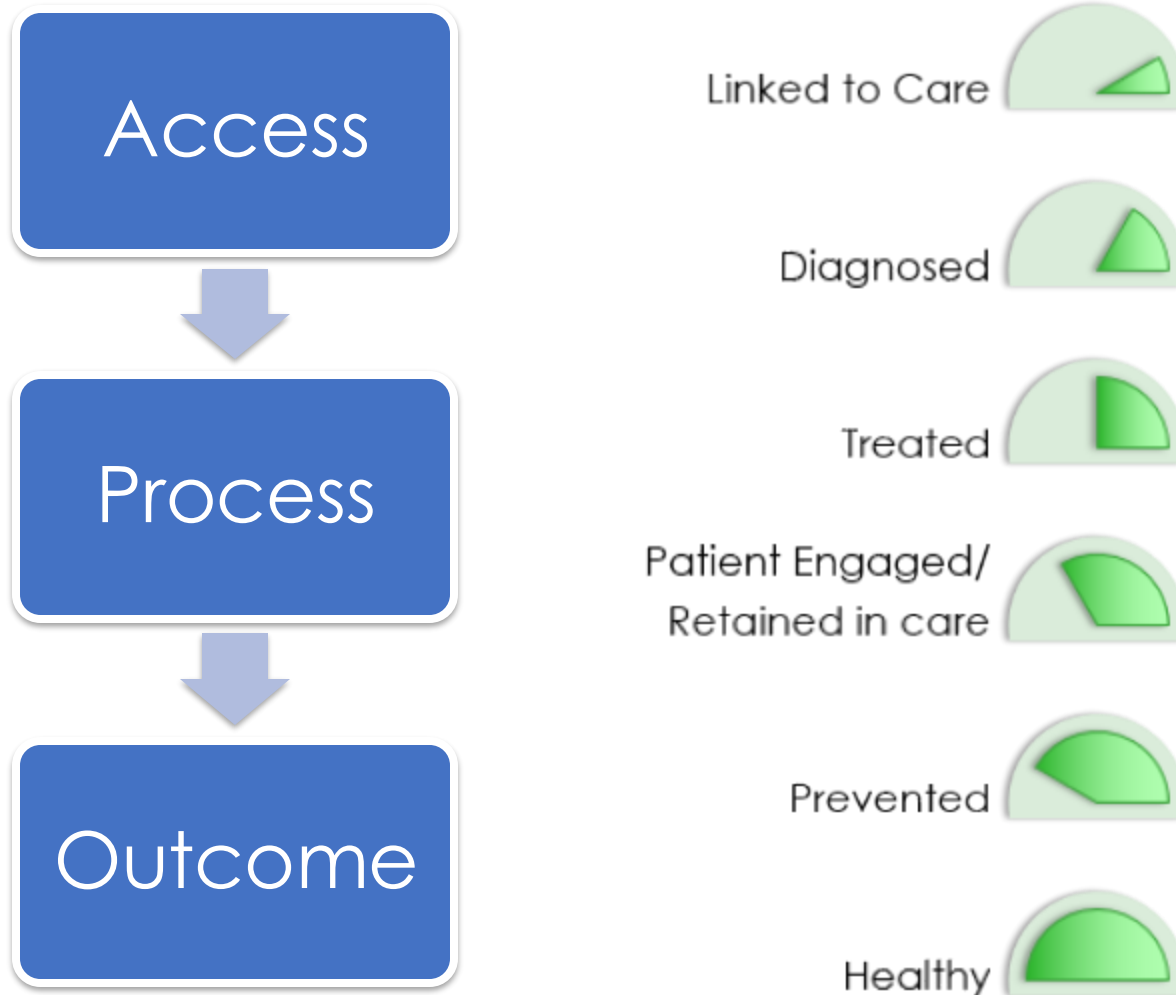
Starter Set of Practice and Clinician Level Claims-Based Measures: Current Status



Measure	Status
Care Continuity for Children	Testing completed; final report and measure specifications posted on DQA website
Maintenance for Adults with Periodontitis	Testing completed; final report and measure specifications posted on DQA website
Topical Fluoride for Children	Testing completed; final report and measure specifications posted on DQA website
Topical Fluoride for Adults at Elevated Caries Risk	In progress
Sealant Receipt on Permanent 1 st Molars	Testing completed; final report and measure specifications posted on DQA website
Sealant Receipt on Permanent 2 nd Molars	Testing completed; interim report posted for public comment

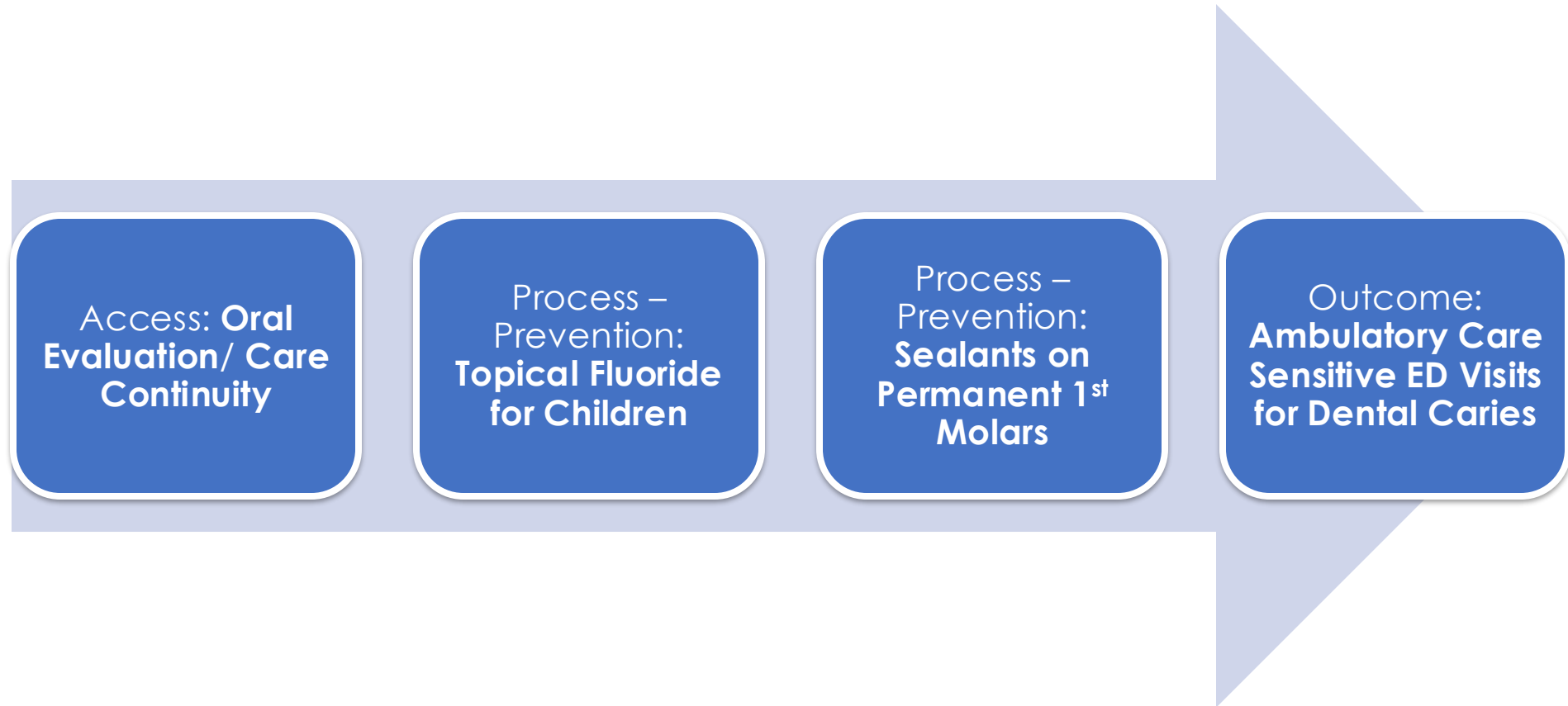
Part 2: Informing Improvement Efforts - DQA Oral Healthcare Quality Dashboard

Selecting Measures for Improvement

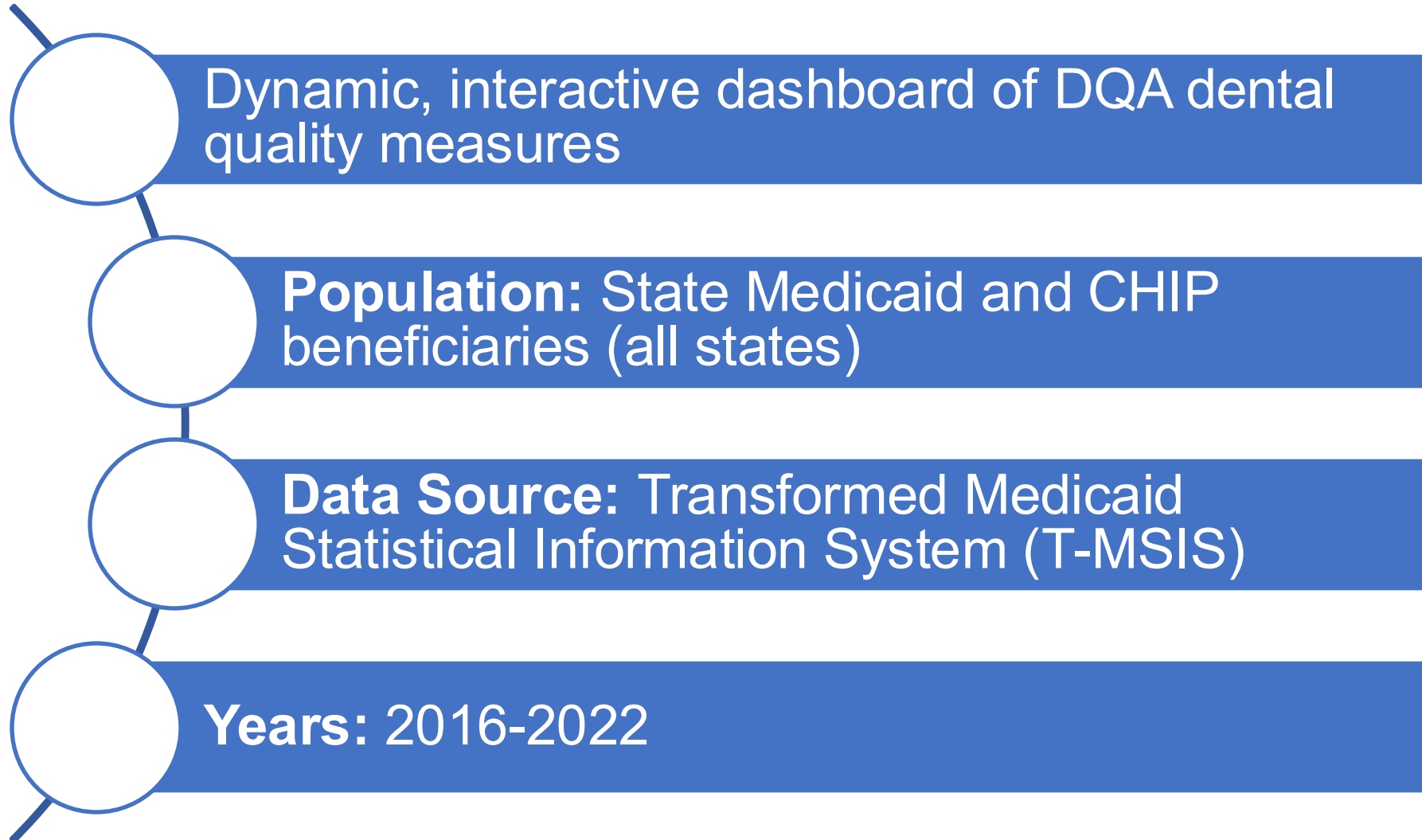


- Identify care goal.
- Identify a set of measures aligned with that care goal.
- Ensure implementation feasibility, reliability and validity (data availability and quality are key!).
- Monitor for progress on meeting and sustaining care goal.

Example Measure Set for Care Goal: Reduce Caries-Related ED Visits

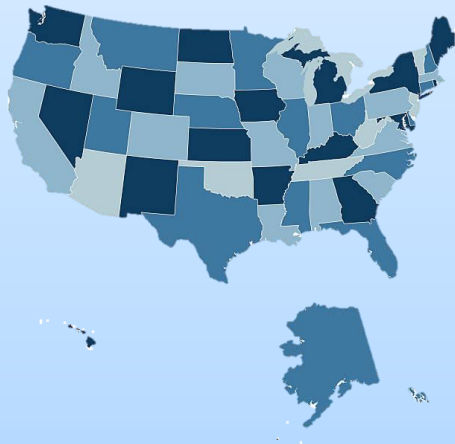


Dental Quality Alliance's State Oral Healthcare Quality Dashboard



What is T-MSIS?

Medicaid/CHIP
eligibility and claims
data for all states



DQA approved for data
access:

- Calendar years 2014–2022
- Dental, Medical, Pharmacy Claims and Enrollment Data



- Includes facility and professional claims; inpatient and outpatient

Objectives:

- Conduct oral healthcare quality measurement research
- Use findings to develop state-level reports using DQA measures
- Identify opportunities for measure refinement and development
- Develop technical assistance resources from learnings to support DQA measure implementation

CHILDREN



MEASURES

- Oral Evaluation
- Care Continuity for Children
- Caries Risk Documentation
- Early Childhood Oral Evaluation Following a Medical Preventive Visit
- Sealant Receipt on Permanent 1st Molars (at least 1 sealed, all 4 sealed)
- Sealant Receipt on Permanent 2nd Molars (at least 1 sealed, all 4 sealed)
- Topical Fluoride (dental, oral health, and dental or oral health)
- ED Visits for Dental Caries
- 7-Day Follow-Up after ED Visit for Dental Caries
- 30-Day Follow-Up after ED Visit for Dental Caries
- Utilization of Services (dental, oral health, and dental or oral health)

ADULTS



MEASURES

- Adults with Diabetes – Oral Evaluation
- Adults with Periodontitis – Periodontal Evaluation
- Adults with Periodontitis – Non-Surgical Ongoing Periodontal Care
- Topical Fluoride for Adults at Elevated Caries Risk
- ED Visits for Non-Traumatic Dental Conditions
- 7-Day Follow-Up after ED Visit for NTDCs
- 30-Day Follow-Up after ED Visit for NTDCs
- Utilization of Services

PREGNANCY



MEASURES

- Utilization of Services
- Oral Evaluation

Dashboard: Features

Filters

- State
- Years
- Program: Medicaid or Medicaid & CHIP
- Stratification by Population Characteristics
 - Age
 - Geographic Location
 - Language
 - Race/Ethnicity
 - Sex
 - Dual Eligible Status (adults)

3 Populations

- Children
- Pregnancy
- Adults

4 Reports

- State
- State Measure Comparison Report
- National Comparison Report
- Time Trend Report

Contextual Information

- Data Quality Assessments
- Adult Dental Benefits Coverage

Data Quality Indicator Categories (adapted from CMS Data Quality Atlas)

Detailed Quality Assessments

- Assessed data quality for each critical data element used to calculate the measure.
- Used CMS Data Quality Atlas quality evaluations for relevant topics.
- Conducted independent assessments for additional fields especially dental-specific fields.
- Aligned data quality categories with CMS Data Quality Atlas.
- Data quality assignment based on data element with greatest level of “concern”.

Low concern

No major problems identified that would affect measure scores.

Medium concern

Some problems identified that may affect measure scores; effects expected to be modest.

High concern

Major problems in data completeness or reliability that are likely to significantly affect measure scores.

Unusable

Extreme problems in data completeness or reliability.

Okay to report with some caution for medium concern

Not recommended to report

Note: These quality assessments reflect such evaluations as data field completeness and legitimate codes. They do not reflect data quality from the perspective of incomplete capture of codes in claims data at the care site level due to such factors as state policies such as reimbursement (e.g., caries risk documentation).

Dashboard: Data Quality Reporting

Why include measure scores in the dashboard when known data quality is poor?

- Allows users, including state Medicaid and CHIP programs, to understand how data quality impacts measure score performance, and states can work on addressing the quality of data submissions to CMS.
- Other users of T-MSIS data may report on dental-related topics for all states without due consideration to data quality. The DQA dashboard enables users of those reports to understand how reporting reliability may be affected by data quality.



Dashboard: Coming Soon!

Additional Years

- Update with CY 2023 data when available

New Interface

For More Information



Email DQA: dqa@ada.org

DQA Website: www.ada.org/dqa

Dashboard: <https://www.ada.org/resources/research/dental-quality-alliance/dqa-improvement-initiatives>

Measure specifications: <https://www.ada.org/resources/research/dental-quality-alliance/dqa-dental-quality-measures>

Advancing performance measurement
as a means to improve oral health,
patient care, and safety through
a consensus-building process.



T-MSIS Data Acknowledgement & Resources



- DQA Oral Healthcare Dashboard reports are part of a research project titled "The State of Oral Healthcare Use, Quality and Spending: Findings from Medicaid and CHIP Programs," made possible through Data Use Agreement (DUA) RSCH-2020-55639 with the Centers for Medicare and Medicaid Services.
- Centers for Medicare & Medicaid Services, T-MSIS Data: <https://www.medicaid.gov/medicaid/data-systems/macbis/medicaid-chip-research-files/transformed-medicaid-statistical-information-system-t-msis-analytic-files-taf/index.html>
- T-MSIS Analytics Files (TAF) Data Quality Atlas: <https://www.medicaid.gov/dq-atlas/welcome>

Let's go to the dashboard!



<https://www.ada.org/resources/research/dental-quality-alliance/dqa-improvement-initiatives>