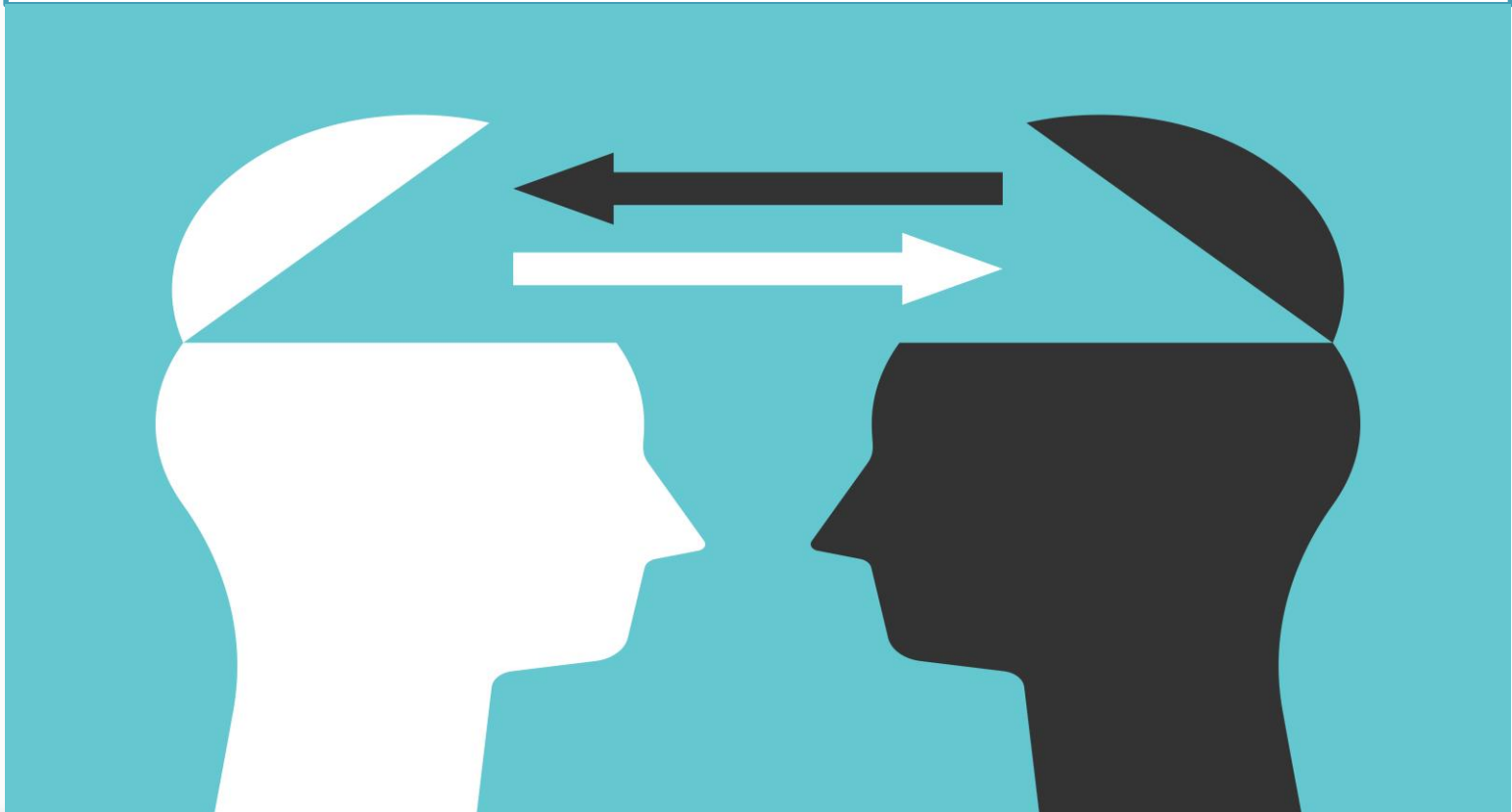


# QUALITY MEASUREMENT 102: Why, What & How



# Speakers



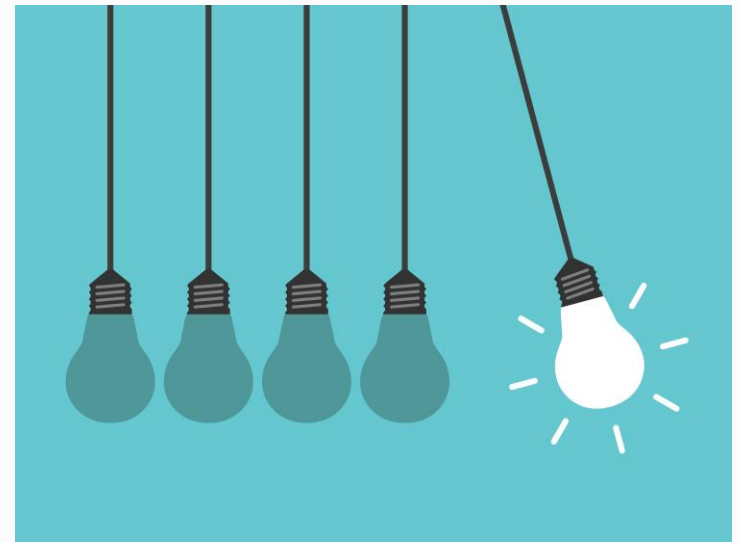
**Marie Schweinebraten, DMD**  
Periodontist  
Georgia Reconstructive  
Dentistry



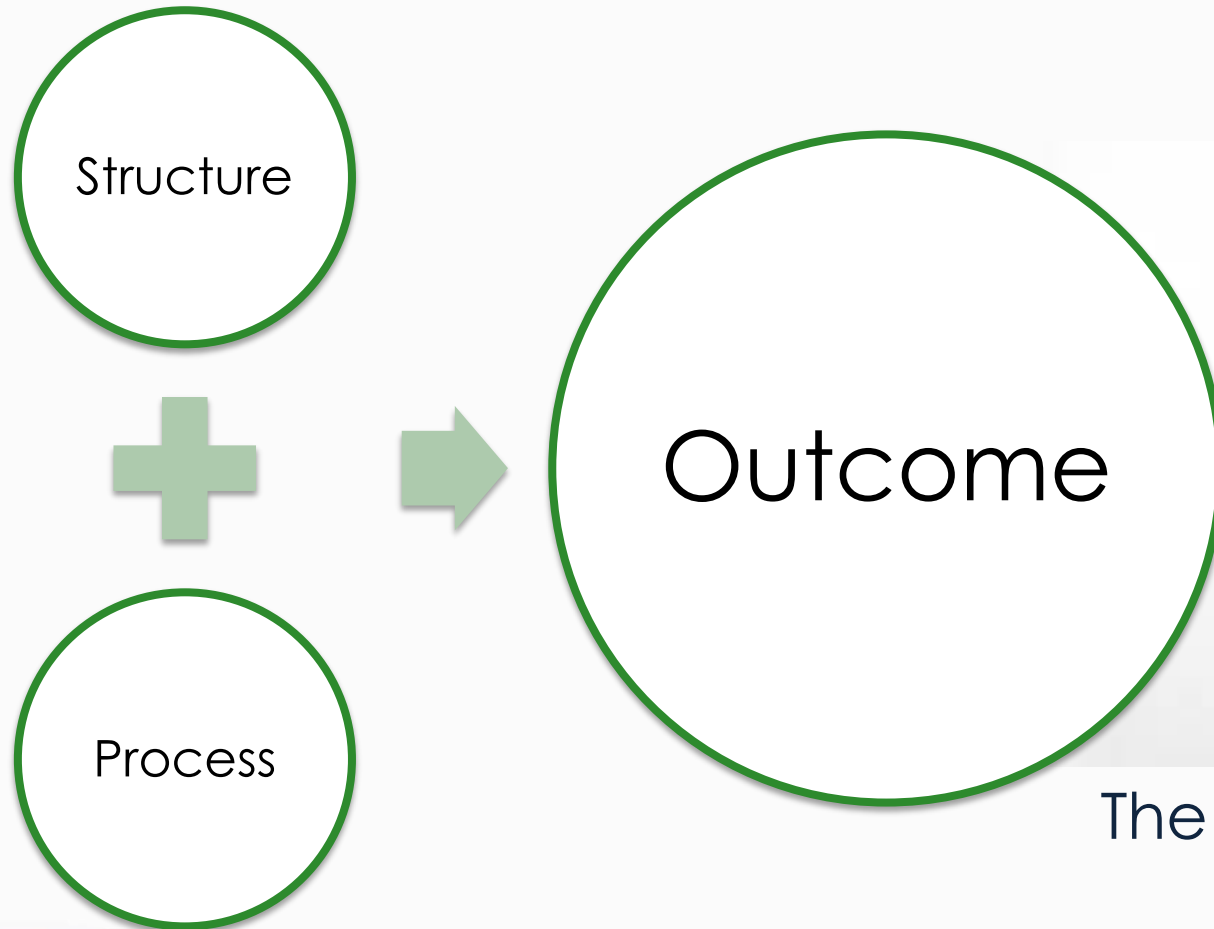
**Ralph Cooley, DDS**  
Associate Professor  
Assistant Dean  
University of Texas School of  
Dentistry

# Learning Objectives

- Explore why measurement matters in dentistry;
- Understand what a measure is, the dynamics of how they work and the makeup of a successful measure; and
- Learn how measurement drives quality improvement and how to put it to use.



# Measurement: A Brief Background



The Donabedian Model

# Why Do Measures Matter?

Improve Population Health

Drive Improvement

Inform Consumers

Influence Payments/Carriers



# Who Uses Quality Measures?



# What IS a Measure?



A standard: A reference point against which other things can be evaluated; “they set the measure for all subsequent work.” v. To bring into comparison against a standard.

Source: [NQF: The ABCs of Measurement](#)

# The Beginnings of a Measure



Clinical  
Guidelines

Scientific  
Research



Scientific  
Research



Clinical  
Guidelines



Evidence  
Based  
Dentistry



# What is Needed to Create a Measure?

**DATA!**

$$M = N/D$$



# What is a Numerator?

**Numerator = What is being measured within specific parameters according to the goal that has been set.**

How many pediatric patients (under 21) received at least 2 fluoride varnish application in the last year?



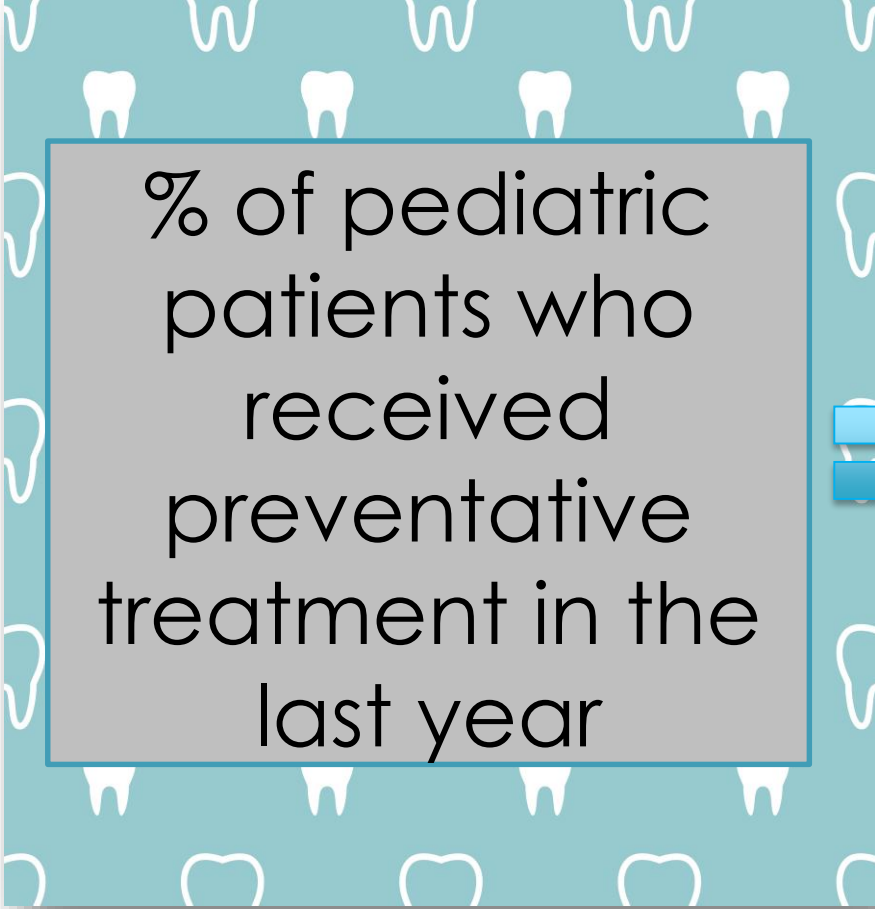
# What is a Denominator?



**Denominator = Is derived from the general group that is being evaluated i.e. the Who, Where, When.**

How many pediatric patients (under 21) are in the practice?

# Together, a Measure!



% of pediatric patients who received preventative treatment in the last year

# of pediatric patients under age 21 who received at least 2 fluoride varnish application in the last year

# of pediatric patients under age 21 in the practice

# The Science Behind Measurement

Is the concept **Evidence Based**?

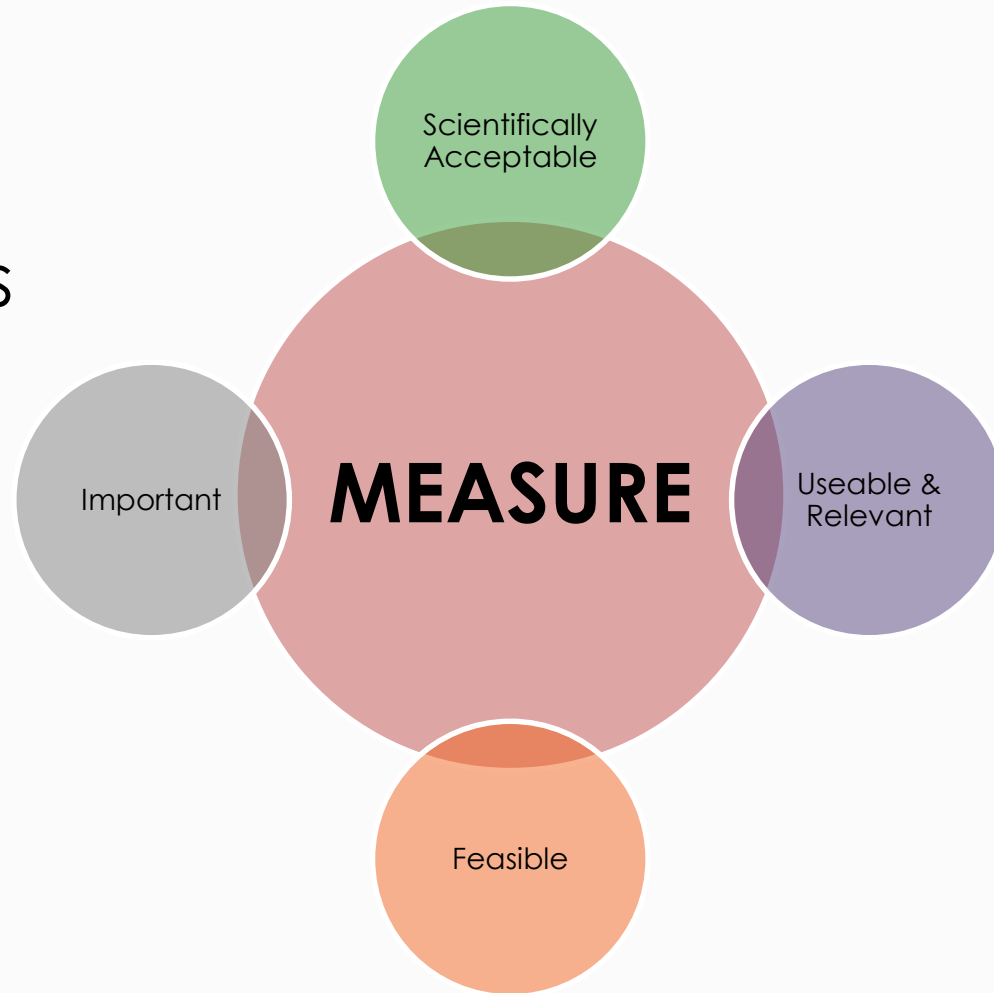
Are there **Clinical Studies**?

Have there been **Systematic Reviews**?

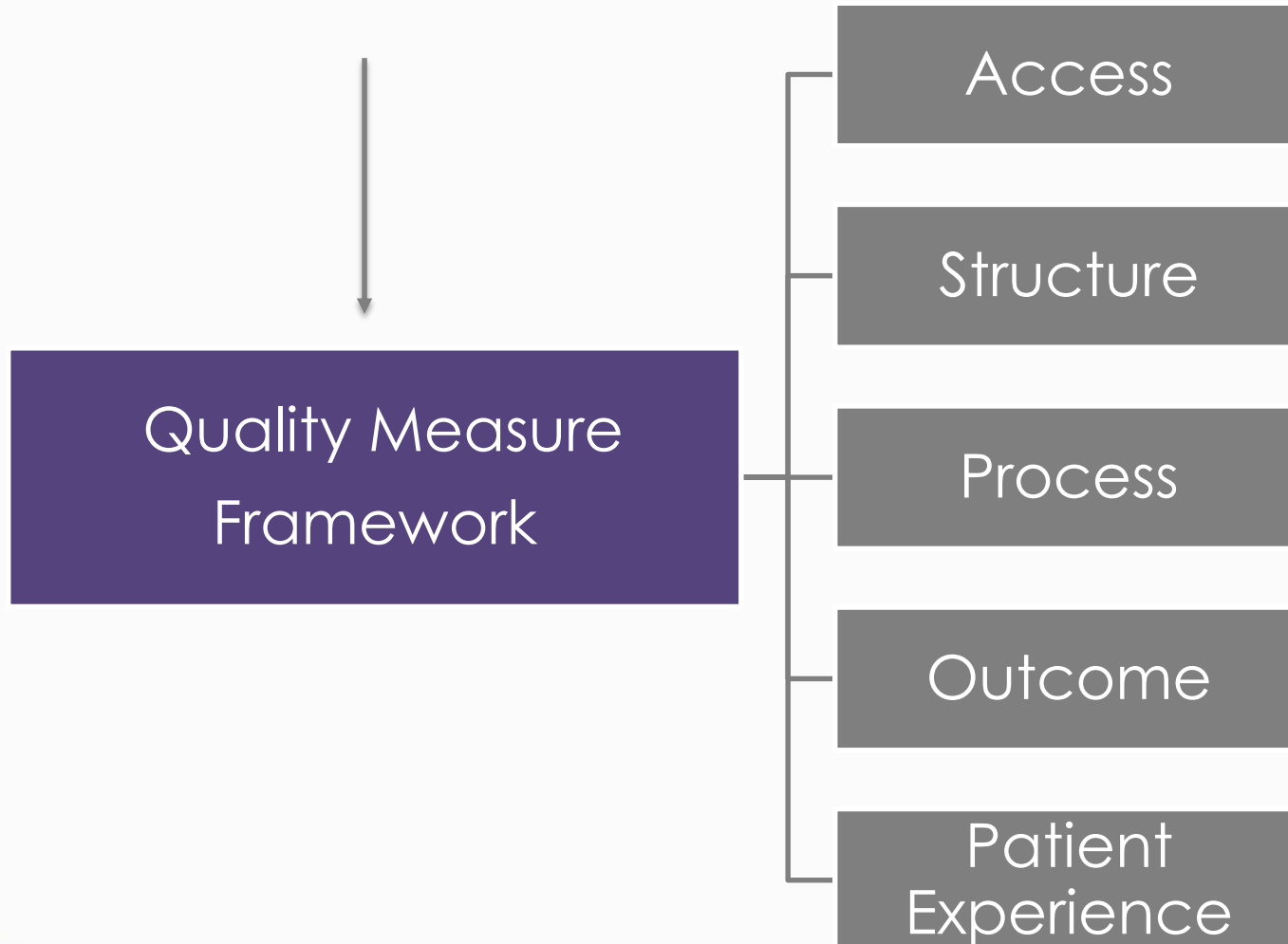
What are the **Clinical Recommendations**?

# A Good Measure...

- ✓ Covers important clinical or administrative areas
- ✓ Scientifically acceptable (valid and reliable)
- ✓ Useable & Relevant
- ✓ Feasible



# Quality Measure Domains



Source: [NQMC Domain Framework](#)



# Exploring Domains



Access

Structure

Process

Outcome

Patient Experience

# Identifying Access



**Access to care is the attainment of timely and appropriate health care by patients or enrollees of a health care organization or clinician.**

Access measures are supported by evidence that an association exists between the measure and the outcomes of or satisfaction with care.

Source: [NQMC Measure Domain Definitions](#)

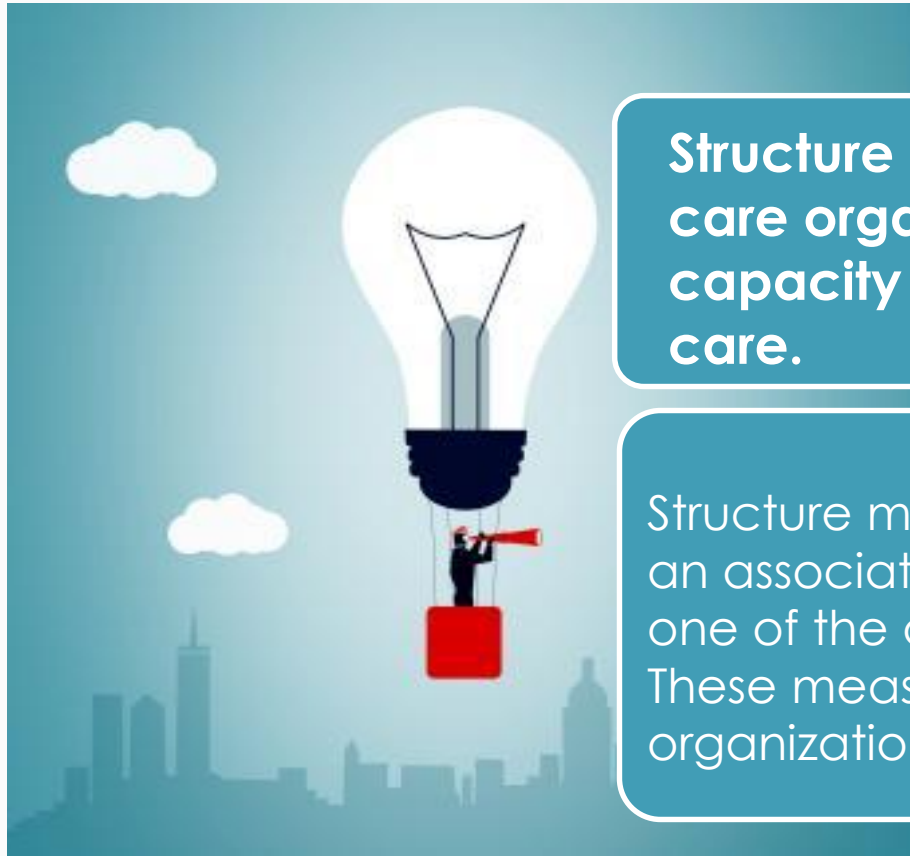
# Understanding Access



Access

e.g. % of all enrolled children under age 21 who received at least one dental service in the reporting year.

# Identifying Structure



**Structure of care is a feature of a health care organization or clinician related to the capacity to provide high quality health care.**

Structure measures are supported by evidence that an association exists between the measure and one of the other clinical quality measure domains. These measures can focus on either health care organizations or individual clinicians.

Source: [NQMC Measure Domain Definitions](#)

# Understanding Structure



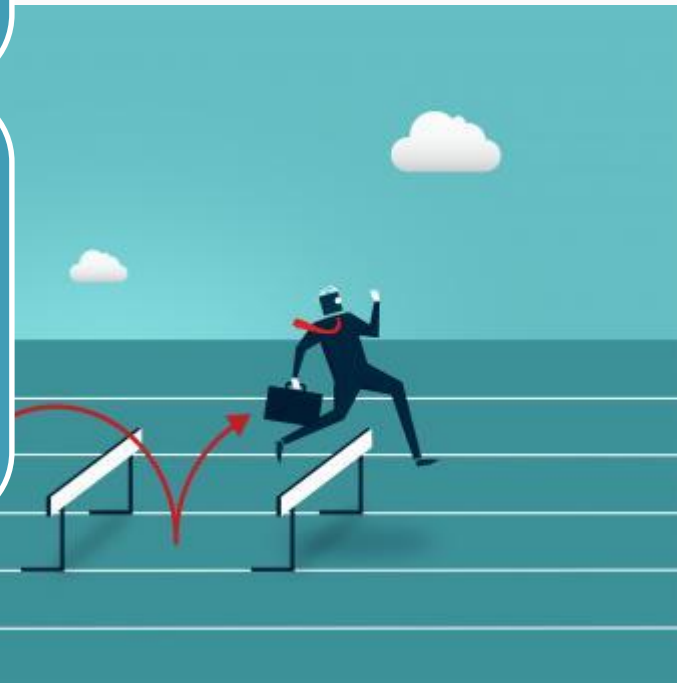
Structure

e.g. All hygienists  
in a practice

# Identifying Process

**A process of care is a health care-related activity performed for, on behalf of, or by a patient.**

Process measures are supported by evidence that the clinical process—that is the focus of the measure—has led to improved outcomes. These measures are generally calculated using patients eligible for a particular service in the denominator, and the patients who either do or do not receive the service in the numerator.



Source: [NQMC Measure Domain Definitions](#)

# Understanding Process



Process

- Prevention: Fluoride
- Prevention: Sealants

# Identifying Outcome



**An outcome of care is a health state of a patient resulting from health care.**

Outcome measures are supported by evidence that the measure has been used to detect the impact of one or more clinical interventions. Measures in this domain are attributable to antecedent health care and should include provisions for risk-adjustment.

Source: [NQMC Measure Domain Definitions](#)



# Understanding Outcome



Outcome

- Improved Risk Status
- Reduced Caries

# Identifying Patient Experience

Experience of care is a patient's or enrollee's report of observations of and participation in health care, or assessment of any resulting change in their health.

Patient experience measures are supported by evidence that an association exists between the measure and patients' values and preferences, or one of the other clinical quality domains. These measures may consist of rates or mean scores from patient surveys.



Source: [NQMC Measure Domain Definitions](#)

# Understanding Patient Experience

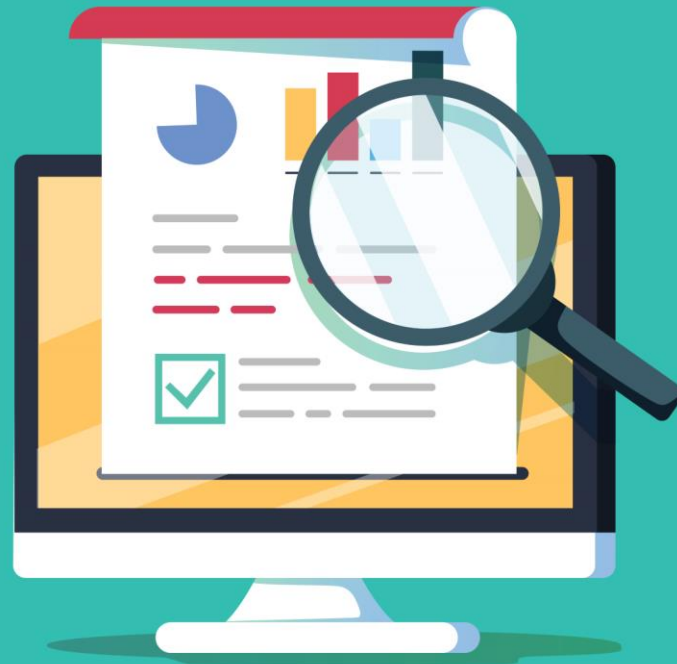


Patient  
Experience

- Oral Health Status
- Quality of Life

# Measure Breakdown

A Closer  
Look



# Measure Terms Defined

## MEASUREMENT PERIOD

The timeframe in which the action or outcome of interest may be accomplished

## UNDUPLICATED

The patient can only be counted *once* during the measurement month

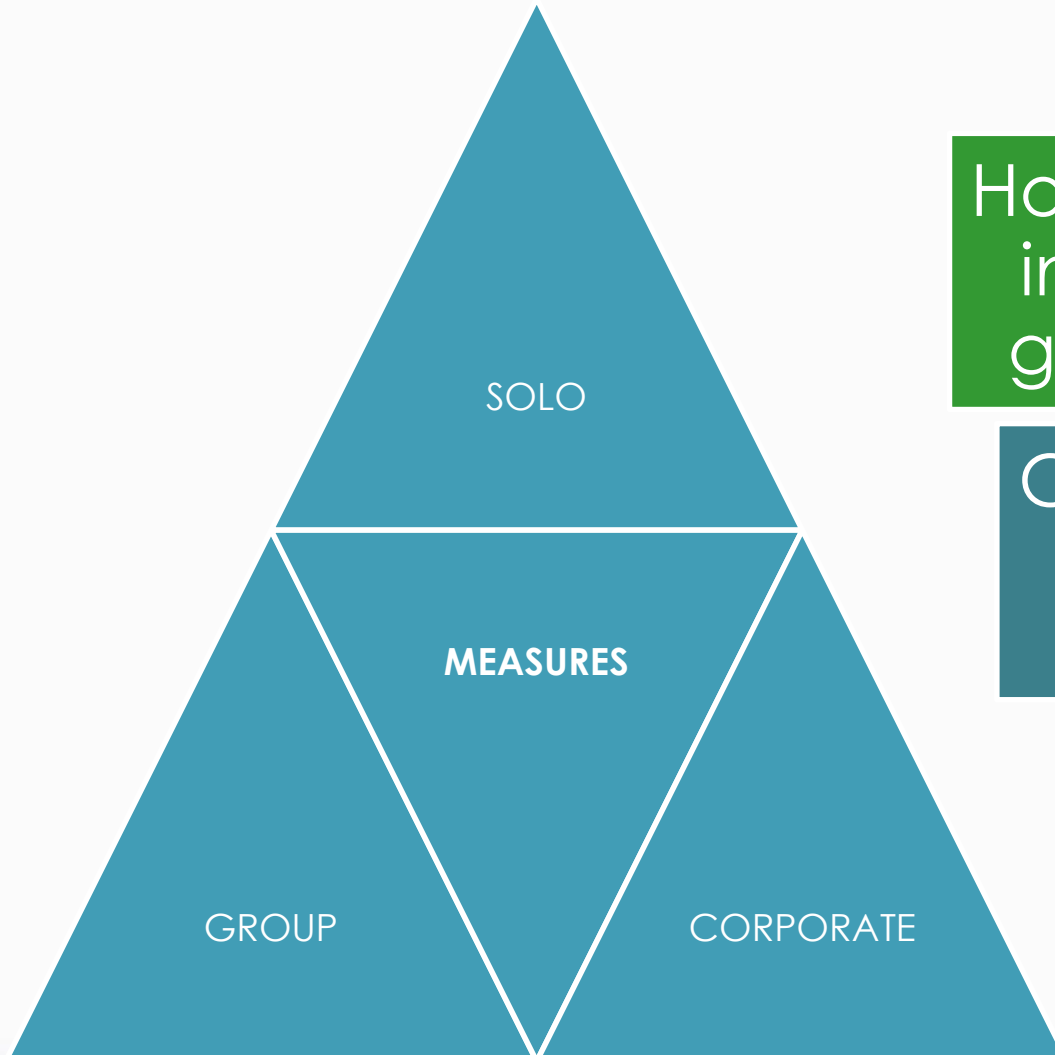
## RATE

A fraction, the numerator divided by the denominator

## DIRECTION OF IMPROVEMENT

Does a higher or lower score indicate better quality

# Quality Measures in your Practice



How do measures work in a solo practice vs. group vs. corporate?

Can these measures be applied in the same manner?

Why or why not?

# Practice-Based Dental Measures

Measures related to:

Diagnosis

Prevention

Oral  
Health  
Status

Clinical  
Quality  
Services

Care  
Continuity

Treatment

**Meaningful Measures Aligned  
with Internal Quality Improvement  
Goals**

# Practice Based Measures for Population Health



Dental Sealants for children ages (6-9 years and 10-14 years) at elevated caries risk

Care Continuity for children ages 2-20 years

Topical Fluoride Application for children ages 1-20 years at elevated caries risk



# Caries Risk Assessment Documentation

Description: Percentage of patients under age 21 years with caries risk documented during the measurement month

Numerator: Unduplicated number of children with caries risk documented

Denominator: Unduplicated number of all children under age 21 years with an oral evaluation or assessment during the measurement month

Rate: NUM/DEN (Numerator is always a subset of denominator)

Direction of Improvement: Higher the better

# Topical Fluoride Application

Description: Percentage of patients aged 1–21 years who received fluoride varnish during the measurement month

Numerator: Unduplicated number of all children who received fluoride varnish

Denominator: Unduplicated number of all children aged 1–21 years who received an oral assessment or evaluation during the measurement month *and have not received two fluoride varnish applications prior to the measurement month*

Rate: NUM/DEN (Numerator is always a subset of denominator)

Direction of Improvement: Higher the better

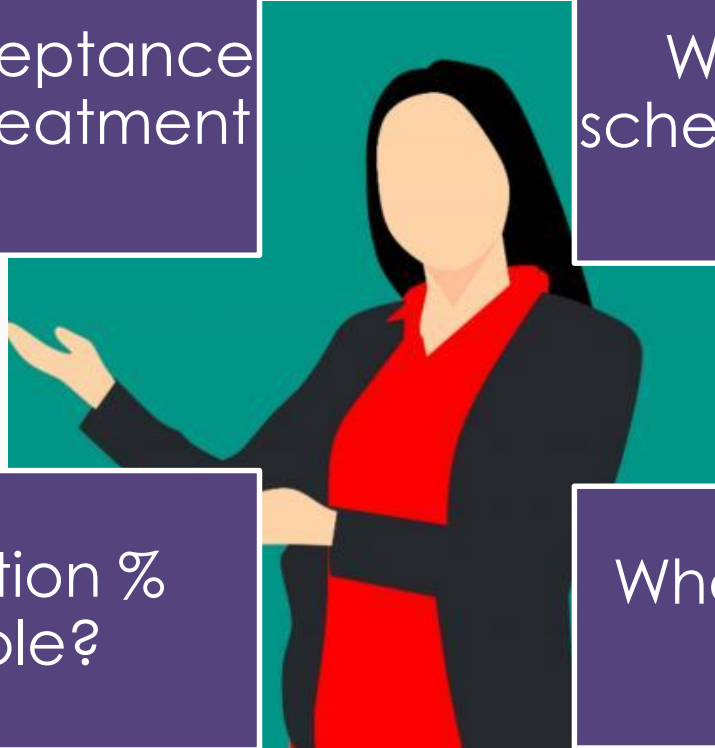
# Practice Based Operational Metrics

What % of acceptance do I have for treatment plans?

What % of patients scheduled recalls during their visits?

Is my collection % acceptable?

What is the % of direct costs per visit?



# Measure Sets

What are they?

Identifying multiple measures of a specific aspect in order to assess and obtain a complete picture of performance

Why use them?

To track overall performance in achieving an improvement goal

# A Look at a Measure Set

## Practice Level Pediatric Measure Set

- Caries at Recall
- Caries Risk Assessment Documentation
- Sealants, 6–9 years
- Sealants, 10–14 years
- Topical Fluoride Application

## What is Addressed

- Population health management. Tracks preventative interventions proven to assess and address disease and risk management.

# A Look at a Measure Set

## Practice Level Operational Measure Set

- Charges (Production) Per Encounter
- Encounters per Hour
- No Shows
- Direct Cost per Visit
- Recall Rates

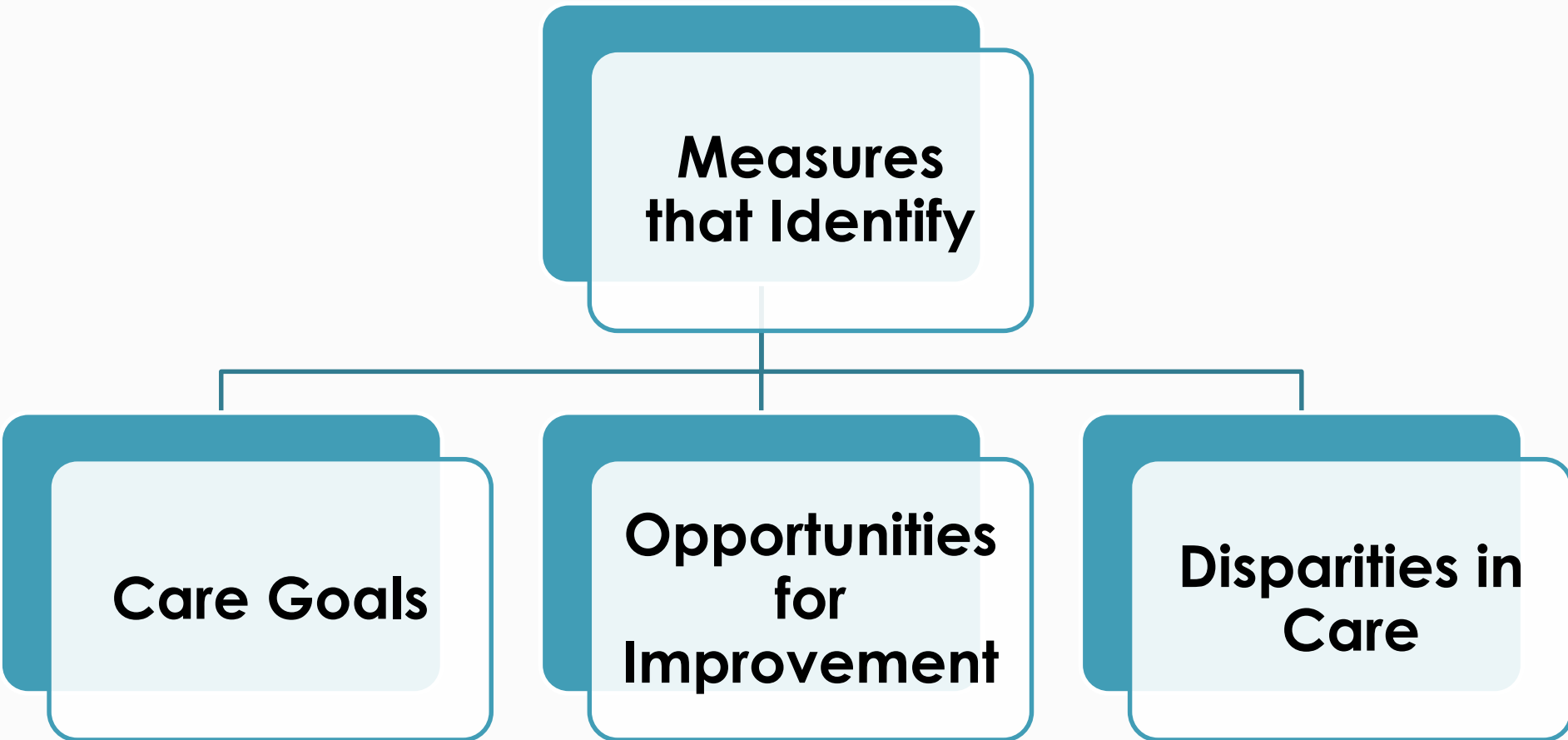
## What is Addressed

- Fiscal & operational sustainability. Tracks the health of your practice.

# Measuring for Quality Improvement (QI)



# Measuring Internal QI





# Measuring External QI (Accountability Application)



# The Ultimate Goal?



# The Golden Rules of Measurement for Improvement

Identify AIM(s)

Measure  
Over Time

Maintain a  
Population  
Health Focus



# Rule #1: Set AIM(s)

What are we  
trying to  
accomplish?

AIM

Desired  
Outcome:  
Reduce  
Caries



# Rule #2: Measure Over Time

How do I know  
a change is an  
improvement?

Measure  
over time

Understand  
timeframes



# Rule #3: Maintain a Population Health Focus



# Putting Measurement to Work



*Improving Oral Health Through Measurement*

Quality Measurement is here to stay and must be controlled by the dental profession

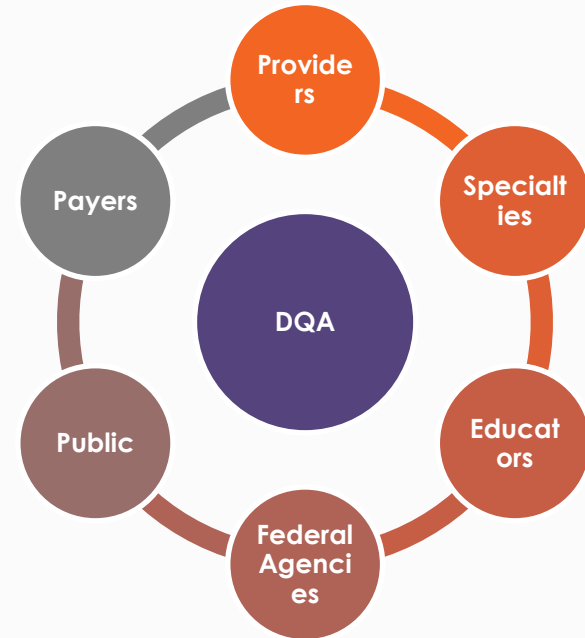


# THE DENTAL QUALITY ALLIANCE



**DQA established by the ADA pursuant to CMS' request and ADA BOT 2008 Resolution:**

- **Resolved**, that the American Dental Association should participate in the Dental Quality Alliance (DQA) proposed by the Centers for Medicare and Medicaid Services (CMS) contingent upon the Association having an authoritative leadership role in the development and operation of the Alliance documented in written communication from the appropriate official at the CMS.



***The mission of the DQA is to advance performance measurement as a means to improve oral health, patient care and safety through a consensus-building process.***



# Objectives of the DQA

Did we make the  
population  
healthy?



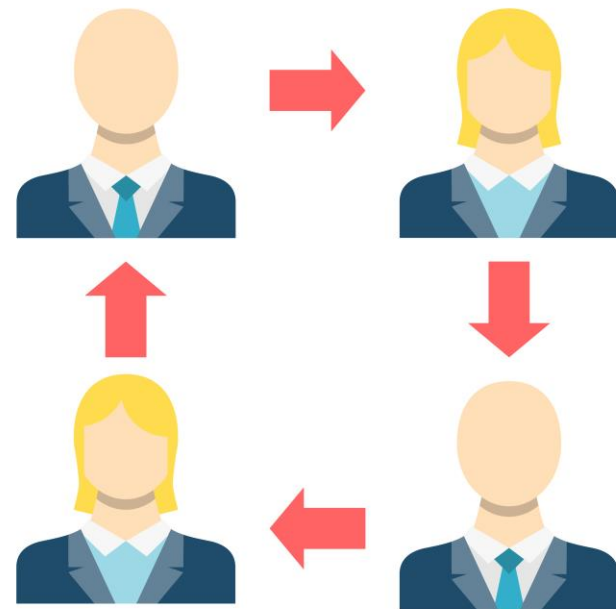
- ✓ Identify and develop evidence-based oral health care performance measures and measurement resources.
- ✓ Advance the effectiveness and scientific basis of clinical performance measurement and improvement.
- ✓ Foster and support professional accountability, transparency, and value in oral health care through the development, implementation and evaluation of performance measurement.

# Influence of the DQA

DQA measures are implemented across both public and private sectors

34 states report using DQA measures

States beginning to incorporate inclusion of DQA Measure into Request for Proposal (RFP) practices



# Stay in Touch with the DQA!

- Questions about developing, using or implementing measures?
- Questions about current DQA measures or those in development?
- Have research, ideas or quality improvement initiatives to share?



**We are here to guide, collaborate and listen:**

Email: [dqa@ada.org](mailto:dqa@ada.org)

Web: [www.ada.org/dqa](http://www.ada.org/dqa)