An Overview of Quality Improvement in Dental Settings

Part 1

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Introductions

• Training Guide – COHTAC Website: https://oralhealthsupport.ucsf.edu

• Chat Box – Technical difficulties

• Q&A Box – Ask a question
Learning Objectives (1/2)

**WHY**
- Explain why quality improvement (QI) matters

**WHAT**
- Distinguish between QI & quality assurance

**EFFECTIVE TEAM**
- Identify elements of an effective QI team

**MANAGING CHANGE**
- Manage change effectively

Learning Objectives (2/2)

**MODEL FOR IMPROVEMENT**
- Explain three foundational questions to the Model for Improvement

**LEAN**
- Describe the principles of Lean

**COMMUNITY OF PRACTICE**
- Create a local learning collaborative & support system

Dental Visit During Pregnancy:
California Maternal and Infant Health Assessment Survey

Jay Kumar, DDS, MPH
State Dental Director
California Department of Public Health
Oral Health Guidelines


Receipt of dental visit during pregnancy among California women with a recent live birth, Maternal and Infant Health Assessment (MIHA) Survey, 2017-2018
Receipt of dental visit during pregnancy by selected County, MIHA Survey, 2017-2018

Poll #1
How would you characterize your familiarity with Quality Improvement concepts?

A. Expert, I've been doing QI for several years
B. Mid-Level, I've participated in some QI activities
C. Novice, I've little knowledge about or experience with QI

Background: CA PIOHQI

• 5-year Perinatal Infant Oral Health QI Project awarded by HRSA to CDPH 2015

• Two Primary Aims:
  1) Increase by 15% (over state baseline) the percent of women who receive oral healthcare during pregnancy
  2) Increase by 15% (over state baseline) the percent of infants who receive preventive oral healthcare

• Methods:
  Develop & implement state-level systems & policy changes
CA PIOHQI Project Approach

**Inventory & Enlist Local Public Health Jurisdiction Assets**
- MCAH, MIECHV, WIC, LOHPs, FQHCs, Medicaid Managed Care Plans

**Host Educational Seminar**
- Foster collaboration, synergize efforts, and standardize Medicaid benefit distribution, share best practices

**Form a Community of Practice (CoP)**
- Learn how to conduct QI projects, conduct rapid-cycle QI and regularly convene to share best practices among stakeholders and partners

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Oral Health Disparities in Dental Visit Rates Among Pregnant Women in California

![Graph showing dental visit rates among different populations in California.](Source: MIHA, 2012)

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Health Disparities

Profound health disparities exist among populations including:
- Racial and ethnic minorities
- Individuals with disabilities
- Elderly individuals
- Individuals with complicated medical conditions and social situations

(Sources:
Paul Glassman, Oral Health Quality Improvement in the Era of Accountability (2013))
Framework for OH Quality Measurement & Improvement

Center for Oral Health Systems Integration and Improvement (2017)

Six Dimensions of Health Care Quality

The Institute of Medicine (2001)
Other Drivers of Quality Improvement in Healthcare

- Increasing understanding of the harm and unwarranted variability our fragmented health care system produces
- Raising awareness of these problems in the age of consumer empowerment
The Era of Accountability

- The Triple Aim
- Defining Value
- National Initiatives

Quality Improvement (QI) Defined

Quality improvement in public health is the use of a deliberate and defined improvement process, such as Plan-Do-Study-Act, which is focused on activities that are responsive to community needs and improving population health.

- National Association of County and City Health Officials

Quality improvement in health care consists of systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups.

- U.S. Department of Health and Human Services
  Health Resources and Services Administration

Poll #2

Quality Improvement & Quality Assurance are essentially the same thing

A. True
B. False
C. Don't know
**Quality Assurance ≠ QI**

- **Quality Assurance**
  - Reactive
  - Periodic look-back @ outcomes
  - Seeks to meet a regulatory standard (e.g., state/federal law)
  - Pass/Fail
  - Led by management

- **Quality Improvement**
  - Proactive
  - Continuous examination of processes
  - Seeks to improve performance based on baseline (culture shift)
  - Exceed expectations
  - Led by staff

Source: Susan Ramsey, Pearls of Wisdom Consulting (2016)

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**Why Quality Improvement Matters**

- Access to high-quality oral healthcare is essential to reducing prevalence of oral disease among high-risk populations (CA MIHA, 2020)
- Pregnancy and infancy offer unique QI opportunities in the clinical environment
- Safety-net medical and dental clinics are uniquely poised to test QI interventions (AHRQ, 2018)

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**Prime Time to Focus on Oral Health**

Oral health is essential to general health and well-being across the lifespan.

During pregnancy, smoking and tobacco use increases the risk of preterm birth and low birthweight.

A mother’s oral health serves as a strong predictor of her child’s oral health status.

3X

If mothers have high levels of untreated caries or tooth loss, their children are 3X more likely to have cavities.

www.cdc.gov/oralhealth
Prime Time to Focus on Oral Health

- Routine dental treatment safe during pregnancy
- Oral healthcare more accessible to low-income populations during pregnancy & childhood
- Increase healthcare touchpoints (prenatal & well-child visits) boost oral health screening, education and referral opportunities

Prime Time to Focus on Oral Health

- Introduce risk-reduction & self-management strategies
- Stabilize periodontal & caries status
- Promote lifelong engagement with a dental home

Section Check-In: Q&A
Team Development

“A team is a group of people committed to a common purpose who choose to cooperate in order to achieve exceptional results.”

– Pat MacMillan, 2001
The Performance Factor

“A team is not a group of people who work together. A team is a group of people who trust each other.”

– Simon Sinek, 2010
How Great Leaders Inspire Action

The Power of Vulnerability

The Power of Vulnerability

Healthy Debates

Healthy Debates
**Key Elements of an Effective QI Team**

- Includes the 5 characteristics of an Effective Team
- Fosters multidisciplinary representation
- Shifts management paradigm to team paradigm
- Recognizes the value of the customer

**Start with Why**

"While all changes do not lead to improvement, all improvement requires change."

– Institute for Healthcare Improvement

"People don’t buy what you do, they buy why you do it."

– Simon Sinek
  *The Power of Why*

**Basic Improvement Principles**

- Quality Improvement
- Incremental Changes
- Data-Driven
- Shared Learning Environment
- Sustainability
Poll #3

A. Poor Decisions Seldom Achieve
B. Plan Do Study Act
C. Pending Daily Source Access
D. I haven't a clue

PDSA stands for:

Improvement Methods

- Model-for-Improvement
  - Three Questions
  - PDSA Cycle
- Lean
  - Delivers value to the customer
  - Eliminates waste
  - Promotes continuous improvement

Model for Improvement

What are we trying to accomplish?

How will we know a change is an improvement?

What change can we make that will result in an improvement?

Plan

Do

Study

Act
Changes to Improve Oral Health Care in a Primary Care Office

- **Improve Workflow**
  - Institute screening and navigation to dental care in OB/GYN office

- **Optimize Inventory**
  - Ensure age-appropriate oral hygiene supplies are consistently available

- **Change the Work Environment**
  - Post key oral health messages in waiting area and exam room

- **Manage Variation**
  - Update EHR to include

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Model for Improvement

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- How will we know a change is an improvement?
- What change can we make that will result in an improvement?

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PDSA Test: Plan

- Develop aim statement
- Identify and prioritize quality improvement opportunities
  - Develop process map
  - Identify all possible root causes
  - Identify possible improvements
  - Determine what to test
- Hypothesize If... Then...

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PDSA Test: Plan

- Plan the test: action plan
  - Who (target population)
  - What (change/test)
  - When (dates of the test)
  - Where (location)
  - How (description of the plan)

- Detail data collection plan
  - What
  - How

PDSA Test: Do

- Implement the change and observe the test
- Collect and document the data
- Document the problems, observations, and lessons learned

PDSA Test: Study

- Develop run charts
- Analyze and summarize the data
PDSA Test: Act

- Take action:
  - Adopt: Standardize but monitor!
  - Adapt: Change and repeat
  - Abandon: Start cycle process over again

PDSA Cycle Summarized

- Plan
  - Objectives, methods, measures
- Do
  - Work the plan
- Study
  - Gather data, analyze results
- Act
  - Decide what to do next
  - Incorporate the change, make a new plan

Linking your PDSA Cycles
Section Check-In: Q&A

“Continuous improvement is better than delayed perfection.”
- Mark Twain

Lean

Lean focuses on improving value from the customer’s point-of-view by reducing waste of time and resources.
Why Focus on Process?

• 85% of the opportunity to provide customer value lies in our processes
• Nearly every tangible output, service or product is the result of a process
• Process steps require and/or consume resources
• Characteristics of processes can be standardized

Why Implement Lean?

• Reduce waste and costs
• Increase productivity
• Improve processing time and quality of services
• Meet customer expectations
• Respond to increased demand for services
• Adjust to (or acknowledge) limited resources

Lean Philosophies

• Customer-Focus
• Respect
• Data-Driven Decisions
• Results
• Accountability
• Excellence
3 Types of Work in Every Process

• **Value-Added**: Any step in the process that improves the product/service for the customer

• **Non-Value-Added**: Waste

• **Business-Necessary**: Required by law, regulation, policy

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Process Mapping

• A Lean-Management method for visually depicting the series of events in a process from its beginning through to the customer

• Helps elucidate areas to target for improvement

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Waste

• Anything in the process that uses time and resources but does not add value in the eyes of the customer
Community of Practice 1/2

- **DOMA**n
  - Area of shared interest & key issues

- **COMMUNITY**
  - Relationships built through discussion, activities & learning

- **PRACTICE**
  - Body of knowledge, methods, stories, tools developed

Source: Wenger-Trayner.com

Community of Practice 2/2

**Key CoP Takeaways:**

- Garner clinic leadership support
- Enlist QI Champions
- Engage & share regularly w/ CoP members
- Use turnkey tools and practical examples
- Have accessible data
- Work to overcome technology barriers (practice management/EDR)
- Maintain patience

CA PICHQI CoP Key Informant Interviews, 2020

Lessons Learned

- Why Quality Improvement (QI) Matters
- How QI Differs from QA
- Elements of an Effective QI Team
- Stages of Change and How to Manage Them
- Model-for-Improvement
- Lean
- Community of Practice
Section Check-In: Q&A

Part 2’s Agenda

Part 2 of this webinar series will demonstrate how to:

- Develop SMARTIE goals and objectives
- Create process maps using Lean methodology
- Identify QI opportunities
- Test small process changes
- Identify, develop, and interpret data metrics
- Explain a case-study example
- Identify QI tools and resources to share with your dental teams

Additional Resources (1/2)

American Society for Quality
The American Society for Quality offers a variety of online and in-person training courses to help advance knowledge and application of quality improvement. Training costs vary.
https://asq.org/training/catalog#f:@freftopics86028=[Basic%20Quality

California Department of Public Health
The California Department of Public Health provides a variety of resources that highlight why dental QI is important and efforts to improve oral health outcomes for pregnant women, infants and young children through the PDDQI Project.
https://www.cdph.ca.gov/Programs/DDSDIC/CDCD/Pages/OralHealthProgram/OralHealth Program.aspx
Additional Resources (2/2)

National Association of County and City Health Officials
The National Association of County & City Health Officials has a compendium of Quality Improvement Training Resources. They also have tools to help assess QI maturity, develop a QI plan, provide QI training and resources to staff, prioritize and select QI projects and implement QI projects.

Prosci
Prosci’s AKDAR (Awareness, Desire, Knowledge, Ability, Reinforce) is a change-management model that provides a framework for guiding individual and organizational change. As quality improvement inevitably demands a change in organizational culture and processes, AKDAR helps to “pave the way” for successful change. Costs vary. https://www.prosci.com/