

**An Overview of Quality Improvement in Dental Settings**

Part 1

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**Acknowledgements**

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**Introductions**

- Training Guide – COHTAC Website:  
<https://oralhealthsupport.ucsf.edu>
- Chat Box – Technical difficulties
- Q&A Box – Ask a question

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**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



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**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



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

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



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### Oral Health Guidelines



**California Guidelines**  
<http://www.cdph.ca.gov/Programs/CID/DCDC/Pages/OralHealthGuidelines.aspx>



**Summary of Practice Guidelines**  
<http://www.cdc.gov/oralhealth/summary-of-practice-guidelines/>



**National Consensus Statement**  
<http://www.cdc.gov/oralhealth/national-consensus-statement/>

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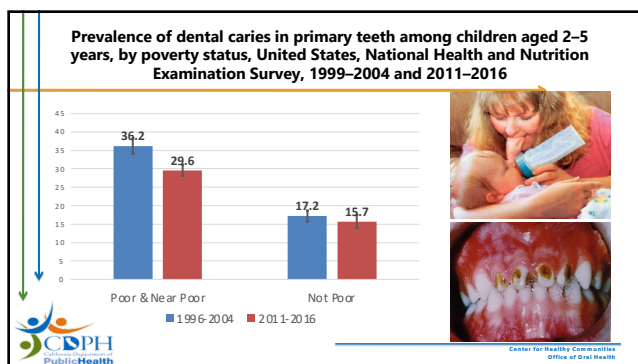
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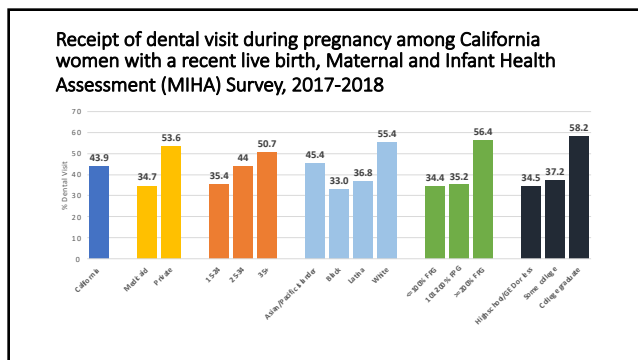
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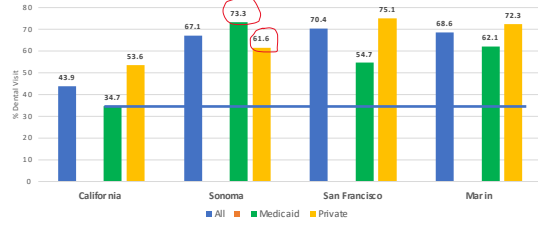
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Receipt of dental visit during pregnancy by selected County, MIHA Survey, 2017-2018



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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



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11

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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



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12

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### 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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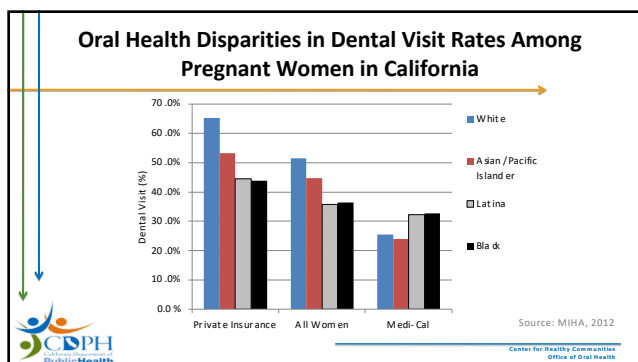
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### Health Disparities

Profound health disparities exist among populations including:

- Racial and ethnic minorities
- Individuals with disabilities
- Elderly individuals
- Individuals with complicated medical conditions and social situations

U.S. Department of Health & Human Services, Oral Health in America: A Report of the Surgeon General (2000)  
Paul Glassman, Oral Health Quality Improvement in the Era of Accountability (2013)  
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### Section Check-In: Q&A





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#### Framework for OH Quality Measurement & Improvement

Domain	System	Community-Based Systems & Supports	Care
<b>Access</b>	- Provider Availability		- Provider Availability
<b>Utilization</b>	- Appropriate Site-of-Care - Use of Services	- Appropriate Site-of-Care - Use of Services	- Appropriate Site-of-Care - Use of Services
<b>Structure</b>	- Leadership Coordination - Provider Training - Health Information Tech	- Health Information Tech	- Leadership Coordination - Provider Training - Health Information Tech
<b>Process</b>	- Care Coordination - Person/Family-Centered Care	- Care Coordination - Person/Family-Centered Care	- Care Coordination - Person/Family-Centered Care
<b>Outcome</b>	- Healthcare System Experience - Health Literacy - Health Status - Patient-reported Outcomes	- Healthcare System Experience - Health Literacy - Health Status - Patient-reported Outcomes	- Healthcare System Experience - Health Literacy - Health Status - Patient-reported Outcomes

Center for Oral Health Systems Integration and Improvement (2017)

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### Six Dimensions of Health Care Quality

-  **Safe:** Avoiding injuries to patients from the care that is intended to help them
-  **Timely:** Reducing waits and sometimes harmful delays for patients and providers
-  **Effective:** Providing the appropriate level of services based on scientific knowledge
-  **Efficient:** Avoiding waste, including waste of equipment, supplies, ideas, and energy
-  **Equitable:** Providing care that does not vary in quality because of personal characteristics
-  **Patient-Centered:** Providing care that is respectful of and responsive to individual patients



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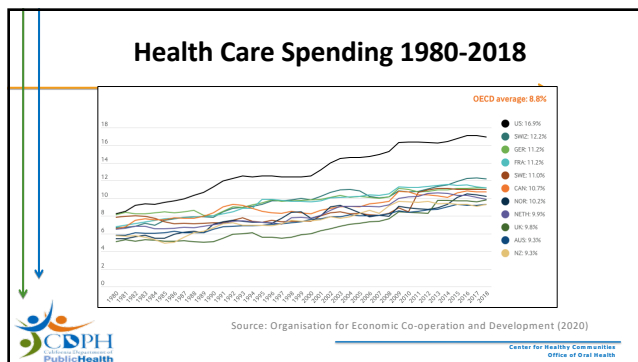
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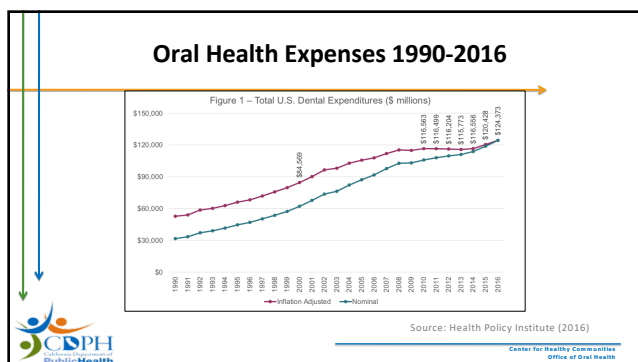
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### Other Drivers of Quality Improvement in Healthcare

- 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

Paul Glassman, Oral Health Quality Improvement in the Era of Accountability (2013)

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21

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### The Era of Accountability

- The Triple Aim
- Defining Value
- National Initiatives

Paul Glassman, Oral Health Quality Improvement in the Era of Accountability (2013)

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### 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

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23

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### Poll #2

Quality Improvement & Quality Assurance are essentially the same thing

- A. True
- B. False
- C. Don't know

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### Quality Assurance ≠ QI

<p><b>Quality Assurance</b></p>  <ul style="list-style-type: none"> <li>• Reactive</li> <li>• Periodic look-back @ outcomes</li> <li>• Seeks to <i>meet</i> a regulatory standard (e.g., state/federal law)</li> <li>• Pass/Fail</li> <li>• Led by management</li> </ul>	<p><b>Quality Improvement</b></p>  <ul style="list-style-type: none"> <li>• Proactive</li> <li>• Continuous examination of processes</li> <li>• Seeks to <i>improve</i> performance based on baseline (culture shift)</li> <li>• Exceed expectations</li> <li>• Led by staff</li> </ul>
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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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26

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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, women may be more prone to gum disease and cavities.




A mother's oral health status is a strong predictor of her child's oral health status.



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

www.cdc.gov/oralhealth

Irene Hilton (2016)


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27

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### 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



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28

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### Prime Time to Focus on Oral Health

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

Irene Hilton, 2016

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29

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### Section Check-In: Q&A



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### 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*



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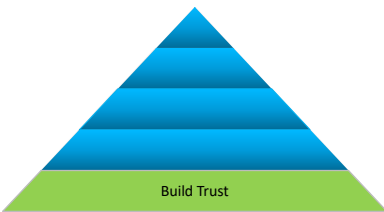
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### The Power of Vulnerability



Build Trust

Overcoming The Five Dysfunctions of a Team (Patrick Lencioni, 2005)



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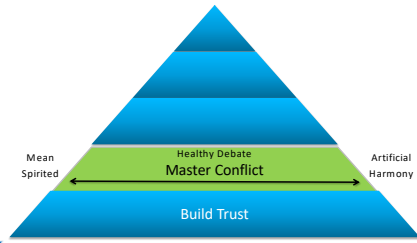
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### Healthy Debates




Mean Spirited

Healthy Debate  
Master Conflict

Artificial Harmony

Build Trust



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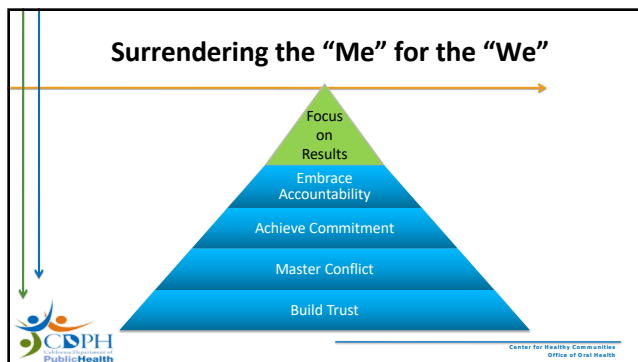
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### Key Elements of an Effective QI Team

- Includes the 5 characteristics of an Effective Team

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- Fosters multidisciplinary representation
- Shifts management paradigm to team paradigm
- Recognizes the value of the customer



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37

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### 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*



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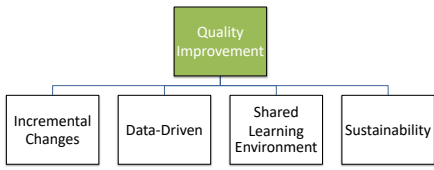
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### Basic Improvement Principles



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### Poll #3

PDSA stands for:

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



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40

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### Improvement Methods

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

Source: G Langley, et al (2009). The Improvement Guide: A Practical Approach to Enhancing Organizational Performance (2nd edition).



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41

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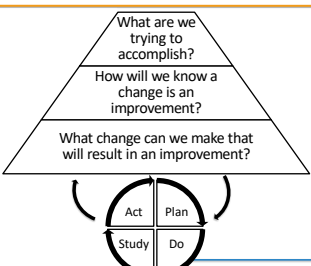
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### Model for Improvement




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?

Act Plan Do Study



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42

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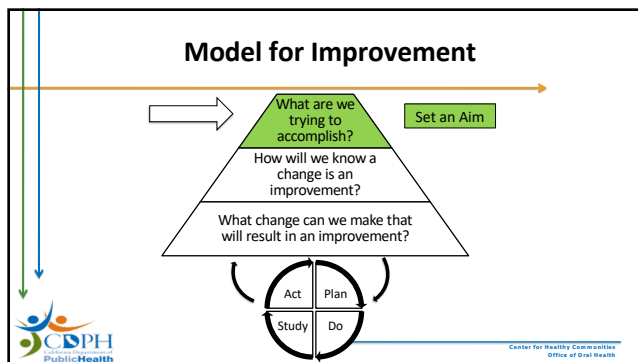
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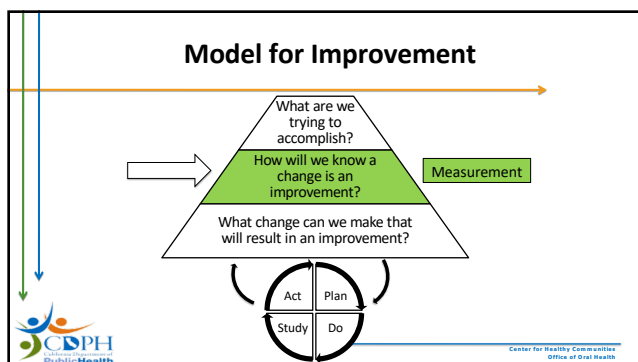
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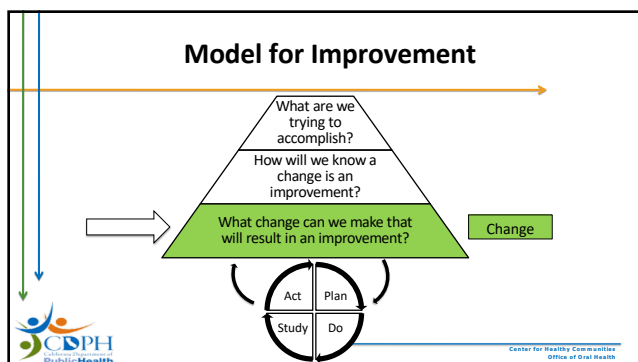
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### Changes to Improve Oral Health Care in a Primary Care Office

- 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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46

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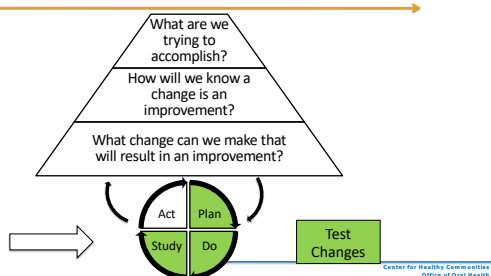

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### Model for Improvement

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?

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47

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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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48

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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



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49

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### PDSA Test: Do

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



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### PDSA Test: Study

- Develop run charts
- Analyze and summarize the data



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51

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### PDSA Test: Act

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



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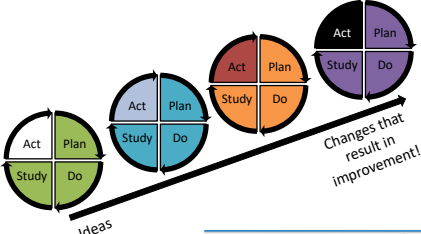
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### Linking your PDSA Cycles



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53

### 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

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54

**Section Check-In: Q&A**



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*"Continuous improvement is better than delayed perfection."*

- Mark Twain



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**Lean**

Lean focuses on improving value from the customer's point-of-view by reducing waste of time and resources.



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### Why Focus on Process?

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- 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



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58

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### Why Implement Lean?

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- 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



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59

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### Lean Philosophies

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- Customer-Focus
- Respect
- Data-Driven Decisions
- Results
- Accountability
- Excellence



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### 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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61

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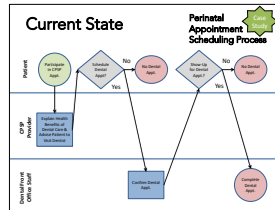
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### Process Mapping

- 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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62

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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



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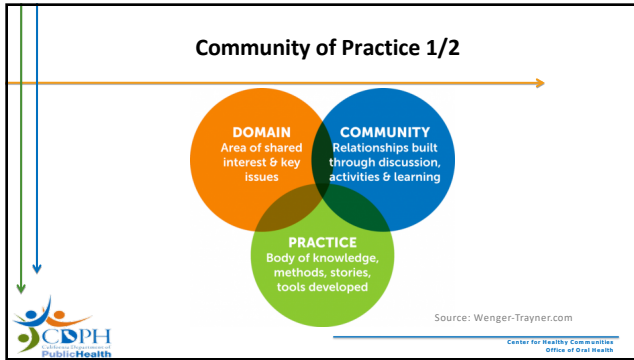
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- Community of Practice 2/2**
- Key CoP Takeaways:**
- Garner clinic leadership support
  - Enlist QI Champions
  - Engage & share regularly w/ CoP members
  - Use turnkey tools and practical examples
  - Have accessible data
  - Work to overcome technology barriers (practice management/EDR)
  - Maintain patience
- CA PIOHQI CoP Key Informant Interviews, 2020
- CDPH  
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65

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- 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
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66

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**Section Check-In: Q&A**





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67

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**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



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68

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**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:@frefronics86028=|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 PIOHQ Project.  
<https://www.cdph.ca.gov/Programs/CCDCDPH/PDCDC/CDCB/Pages/OralHealthProgram/OralHealthProgram.aspx>



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69

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## 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.

<http://qiroadmap.org/wp-content/uploads/2013/01/QIRoadmap.pdf>

<https://www.naccho.org/programs/public-health-infrastructure/performance-improvement/quality-improvement>

### 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/>



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