

# Change Packages for Improving Oral Health: *A Hands-On Session to Improve Quality of Care*

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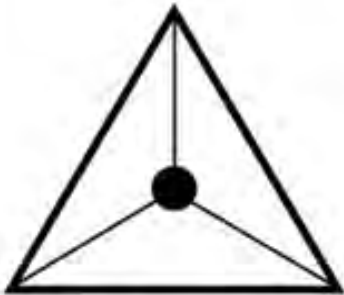
2018 National Oral Health Conference

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# Ultimate Goals

Improving the patient experience of care  
(including quality and satisfaction)



IHI *Triple Aim*

Improving the health of populations

Reducing the per capita cost of health care



**Better Care:** Improve overall quality, by making health care more patient-centered, reliable, accessible, and safe.



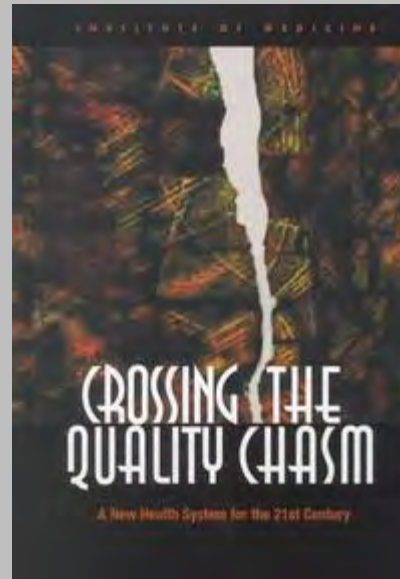
NATIONAL QUALITY STRATEGY

Better Care, Affordable Care, Healthy People/Healthy Communities.

**Healthy People/Healthy Communities:** Improve the health of the U.S. population by supporting proven interventions to address behavioral, social and, environmental determinants of health.

**Affordable Care:** Reduce the cost of quality health care for individuals, families, employers, and government.

# What is quality?



**Health care quality:** “the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”

-Institute of Medicine (2001)

# What is high-quality care?



Institute of Medicine (2001)

# Quality Improvement



# Model for Improvement



Always start with your care goal.



Identify evidence-based/informed measures in furtherance of those goals.

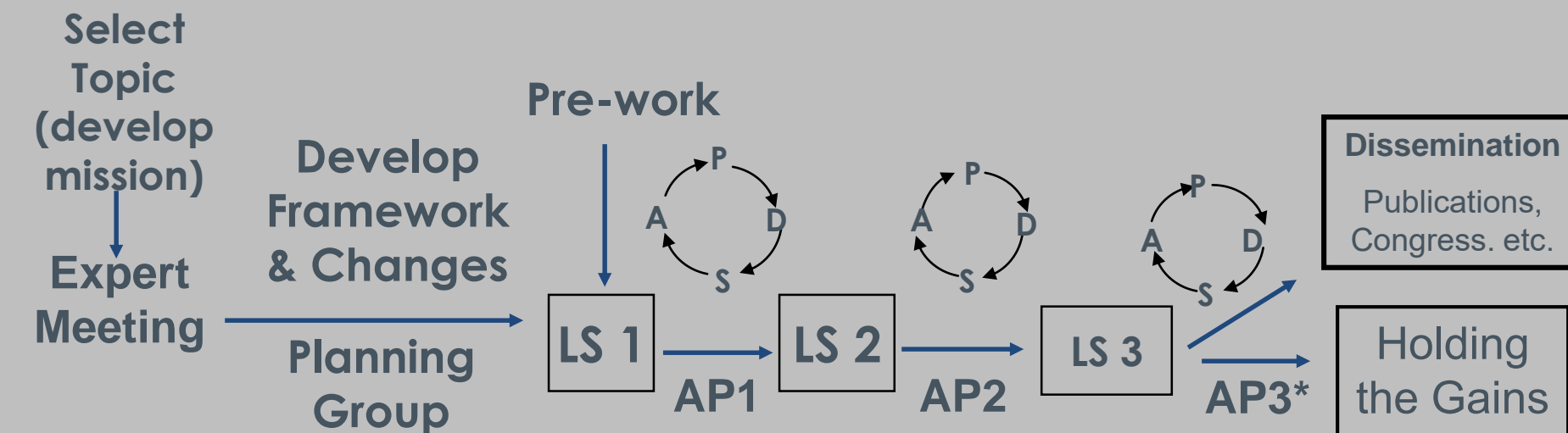


Implement strategies with demonstrated effectiveness.

- Langley GL, Moen R, Nolan KM, Nolan TW, Norman CL, Provost LP. [The Improvement Guide: A Practical Approach to Enhancing Organizational Performance](#) (2nd edition). San Francisco: Jossey-Bass Publishers; 2009.
- <http://www.ihl.org/resources/Pages/HowtoImprove/default.aspx>

# Institute for Healthcare Improvement (IHI) Breakthrough Series Collaborative Model (6 to 18 months time frame)

- [Forming the Team](#)
- [Setting Aims](#)
- [Establishing Measures](#)
- [Selecting Changes](#)
- [Testing Changes](#)
- [Implementing Changes](#)
- [Spreading Changes](#)



**LS – Learning Session**  
**AP – Action Period**

**Supports**

Email (listserv)    Phone Conferences  
Visits    Assessments    Extranet  
Monthly Team Reports

\*AP3 –continue reporting data as needed to document success

# Working Together to Improve Care



# Form / Engage your Quality Improvement Team



- Make sure you have all of the areas of expertise needed to develop, implement and lead oral health care improvement initiatives.
- Foster regular communication among these areas!

# Identify and Engage Stakeholders

- What other stakeholders are involved in care delivery for your patients?

→ Engage to align efforts, share learnings, and leverage limited resources

- What other stakeholders are key to successful implementation of QI activities?

→ Engage to align efforts, ensure feasibility, identify potential barriers

# Outcomes are impacted by more than care delivery



DENTAL QUALITY ALLIANCE™

Improving Oral Health Through Measurement

The Expanded Chronic Care Model (Barr, 2003)



Source: Barr, V., S. Robinson, B. Marin-Link, L. Underhill, A. Dotts, D. Ravensdale, and S. Salivaras. 2003.

The expanded chronic care model: An integration of concepts and strategies from population health promotion and the chronic care model. *Hospital Quarterly* 7(1):73–82.

# Step 1: What are we trying to accomplish?

## Defining the **aims**

# Getting Started: IHI Tips for Setting Aims



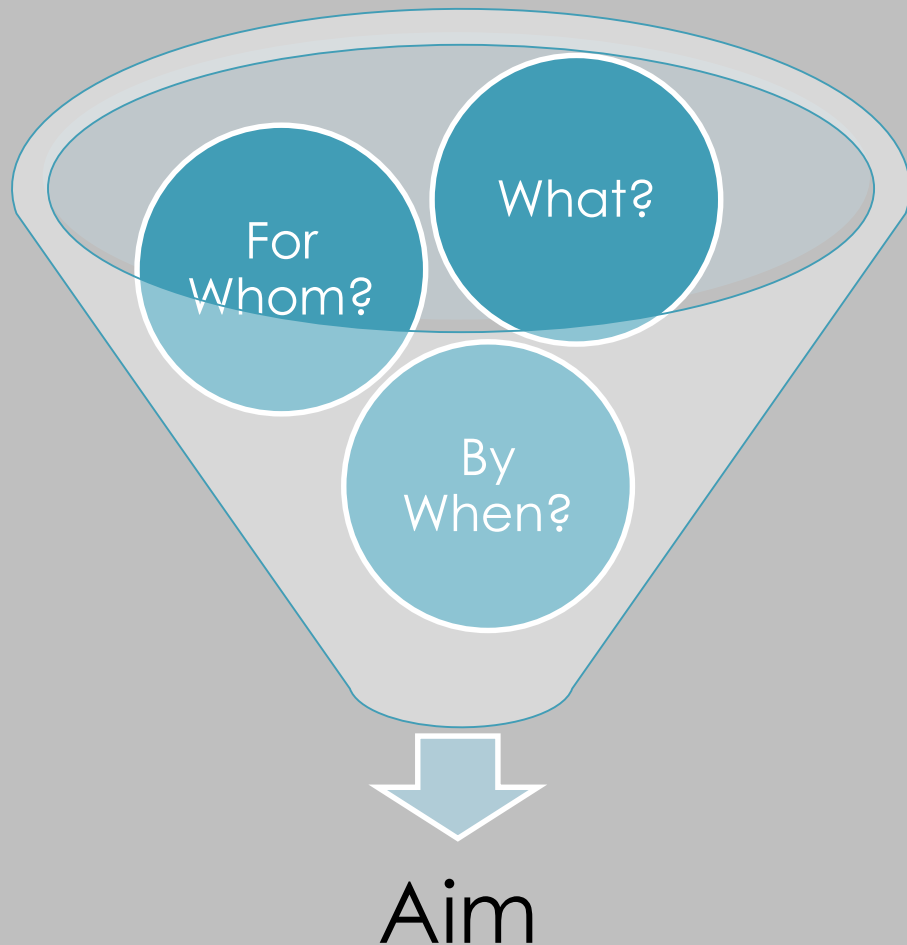
- Set an aim now: it doesn't have to be perfect
- Make sure it feels meaningful: something you care about
- Set an aim that can be tracked: ability to assess progress
- Be quantitative: what's the magnitude of your intended impact?
- Be ambitious, but grounded (grounded aspiration)!

# Start with your ultimate care goal

## What is the outcome you want to achieve for your patient population?

- Reduce caries?
- Reduce periodontal disease?
- Reduce edentulism?
- Reduce dental-related ED visits?
- Improve patient experience with care?
- Engage patients in care and self-management?
- Improve patient functioning?
- Improve patient oral health quality of life?

# Defining your care goal as an aim



## **What do you want to improve?**

- Identify the outcome you are seeking to achieve (develop into outcome aim)

## **For which populations?**

- Identify the population you are targeting

## **By when?**

- Identify a realistic, yet “stretch”, time frame for achieving each aim.

## **Examples of an Outcome Aim Statement**

Decrease the percentage of children aged 0-6 years with early childhood caries by X% relative to baseline within Y years.

Your **AIMs** give specificity to what you want to improve, for which populations, and within what time frame.

# Identifying intermediate aims to achieve overall care goal

Reduce Incidence of  
Dental Caries  
(Outcome)

**Domain #1:** Link/Retain  
Enrollee in Care

**Domain #2:** Increase  
Receipt of Evidence-Based  
Preventive Services

**Domain #3:** Engage  
Enrollees and Community /  
Provide Health Promotion  
Supports

## **Domain #1: Link/Retain Enrollee in Care**

By [time], increase the percentage of children 0-6 years who receive an oral evaluation by X%.

## **Domain #2: Increase Receipt of Evidence-Based Preventive Services**

- By [time], increase the percentage of children 0-6 years who receive at least two fluoride varnish applications by X%.

## **Domain #3: Engage Enrollees and Community in Care / Provide Health Promotion Supports (Process)**

- By [time], increase the percentage of caregivers of children 0-6 years who receive motivational interviewing to identify self-management goals for their children by X%.



# Table Discussions

# Activity 1: Identify Care Goal and Aims

1. Briefly introduce yourselves and your oral health setting
2. Select one of the following care goals for your table to focus on
  - Reduce caries?
  - Reduce periodontal disease?
  - Reduce edentulism?
  - Reduce dental-related ED visits?
  - Improve patient experience with care?
  - Engage patients in care and self-management?
  - Improve patient functioning?
  - Improve patient oral health quality of life?
3. Identify 2-3 intermediate aims to achieve the care goal  
[E.g., increase percentage of patients with check-ups, evidence-based prevention, self-management goals, etc.]
4. Identify key stakeholders to engage
5. Identify key barriers to achieving those aims

# Step 2: How will we know that a change is an improvement?

## Identifying the **measures**

“The only way to know whether the quality of care is improving is to measure performance.”

- Institute of Medicine. Committee on Redesigning Health Insurance Performance Measures Payment and Performance Improvement Programs. *Performance measurement: accelerating improvement*. Washington, D.C.: National Academies Press; 2006

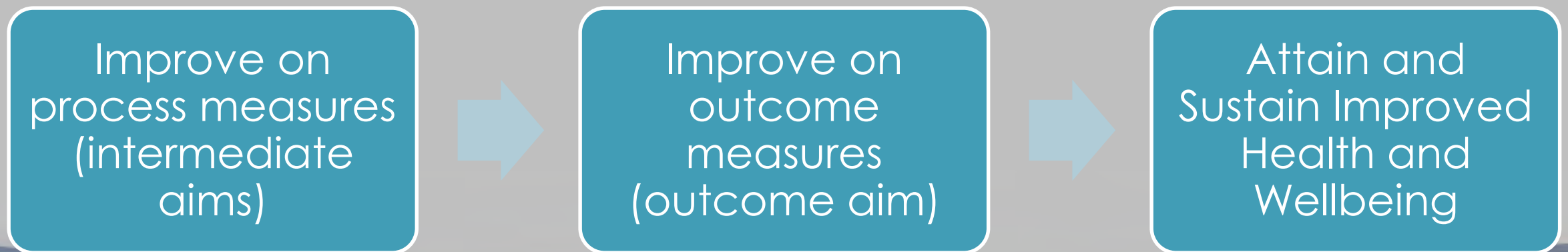
# Linking aims to measures

A **measure** is a metric used to monitor progress in achieving improvement.

**Process measures** indicate whether different aspects of the care system are improving in areas expected to be associated with the outcome sought. Process measures are more likely to be associated with the aims.

**Outcome measures** more directly indicate whether patient health and well being is improved. Outcome measures are used to evaluate how well the ultimate care goal is being met.

**Sustainability.** Measurement should be ongoing to monitor progress over time and whether improvements made are sustained. When moving on to new aims, it is important to not lose ground on progress already made.



# How do I select which measures to use?



- Identify care goal.
- Identify a family of measures aligned with that care goal.
- Ensure implementation feasibility, reliability and validity (data availability and quality are key!).

# Example

Access



Process




Outcome

Linked to Care 

Diagnosed 

Treated 

Patient Engaged/  
Retained in care 

Prevented 

Healthy 

## Percentage of patients/enrollees who:

- Were able to get an appointment as soon as they wanted
- Received a documented oral health risk assessment
- Completed treatment plan
- Set an oral health self-management goal with their care team
- Received sealants and fluoride based on assessed risk
- Had no new caries at recall visit

# Where can I find measures?

## DQA practice level measures for QI

- Follow-Up after Well-Child Visit
- Caries Risk Assessment Documentation
- Sealants, 6-9 year olds
- Sealants, 10-14 year olds
- Topical Fluoride Application
- Caries at Recall

[https://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA\\_2016\\_Practice\\_Level\\_Measures\\_for\\_QI.pdf?la=en](https://www.ada.org/~media/ADA/Science%20and%20Research/Files/DQA_2016_Practice_Level_Measures_for_QI.pdf?la=en)



# DQA program and plan level measures



DENTAL QUALITY ALLIANCE™

Improving Oral Health Through Measurement

	Measure Name	Measure Domain
<b>Evaluating Access and Utilization</b>	NQF#2511: Utilization of Services	Access/Process
	Preventive Services for Children at Elevated Caries Risk	Related Health Care Delivery: Use of Services
	Treatment Services	Related Health Care Delivery: Use of Services
<b>Evaluating Quality of Care</b>	NQF #2517: Oral Evaluation	Process
	NQF #2528: Topical Fluoride for Children at Elevated Caries Risk	Process
	NQF #2508: Sealants for 6–9 Year-Old Children at Elevated Caries Risk	Process
	NQF #2509: Sealants for 10–14 Year-Old Children at Elevated Caries Risk	Process
	Care Continuity	Process
	Usual Source of Services	Access/Process
	NQF #2689: Ambulatory Care Sensitive Emergency Department Visits for Dental Caries in Children	Outcome
	NQF #2695: Follow-Up after Emergency Department Visit for Dental Caries in Children	Process
<b>Evaluating Cost and Efficiency</b>	Per Member Per Month Cost of Clinical Services	Related Health Care Delivery: Efficiency and Cost
<b>Adult Periodontal Measures</b>	Periodontal Evaluation in Adults with Periodontitis	Access/Use
	Ongoing Care in Adults with Periodontitis	Process

<http://www.ada.org/en/science-research/dental-quality-alliance/dqa-measure-activities/measures-medicaid-and-dental-plan-assessments>

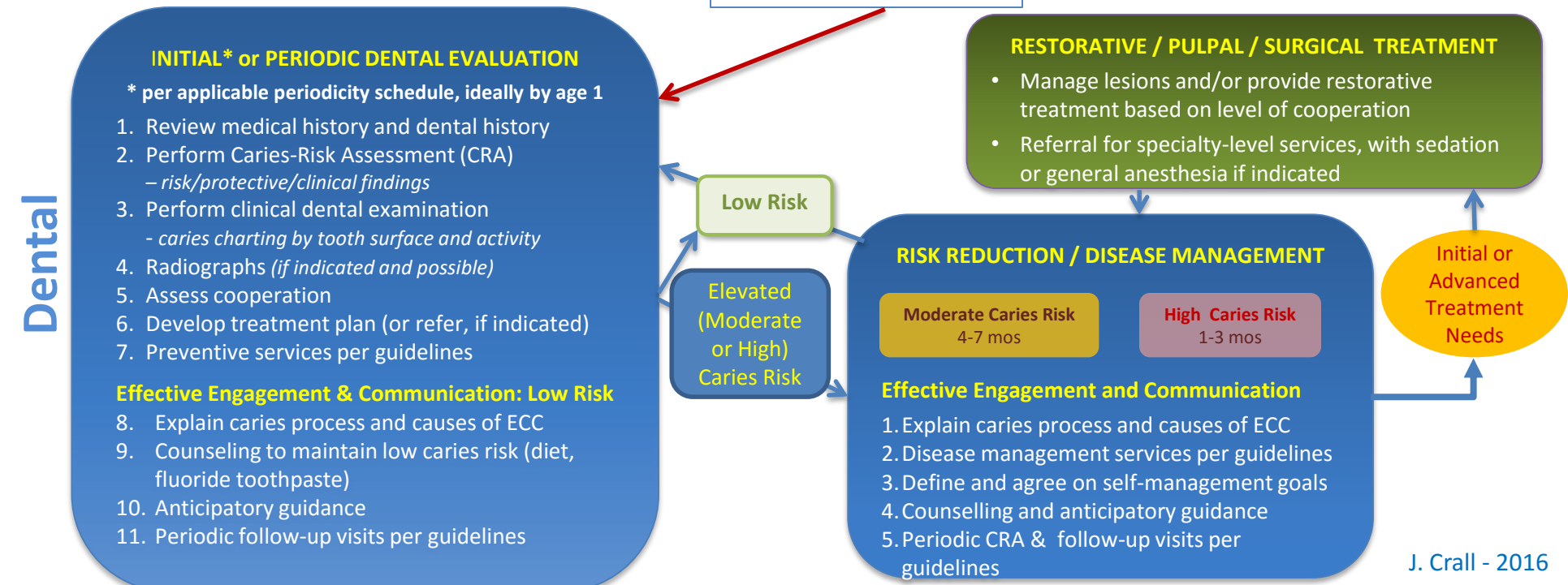
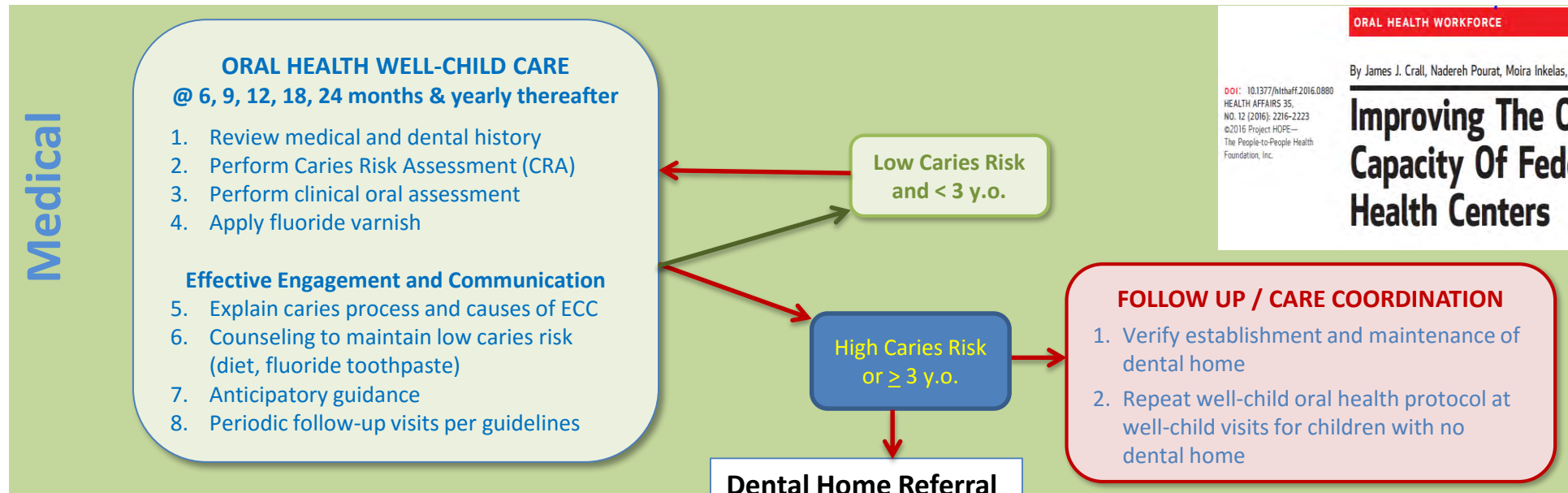
**Step 3: What changes can we  
make that will result in  
improvement?**

**Identifying the **change**  
**ideas****

“Every system is perfectly designed to get the results it gets – the only way to get different results is to change the system.”

-IHI

# Appendix Exhibit 2. Risk-based Integrated Oral Health & Dental Care Pathway



# Identify drivers of change and change ideas

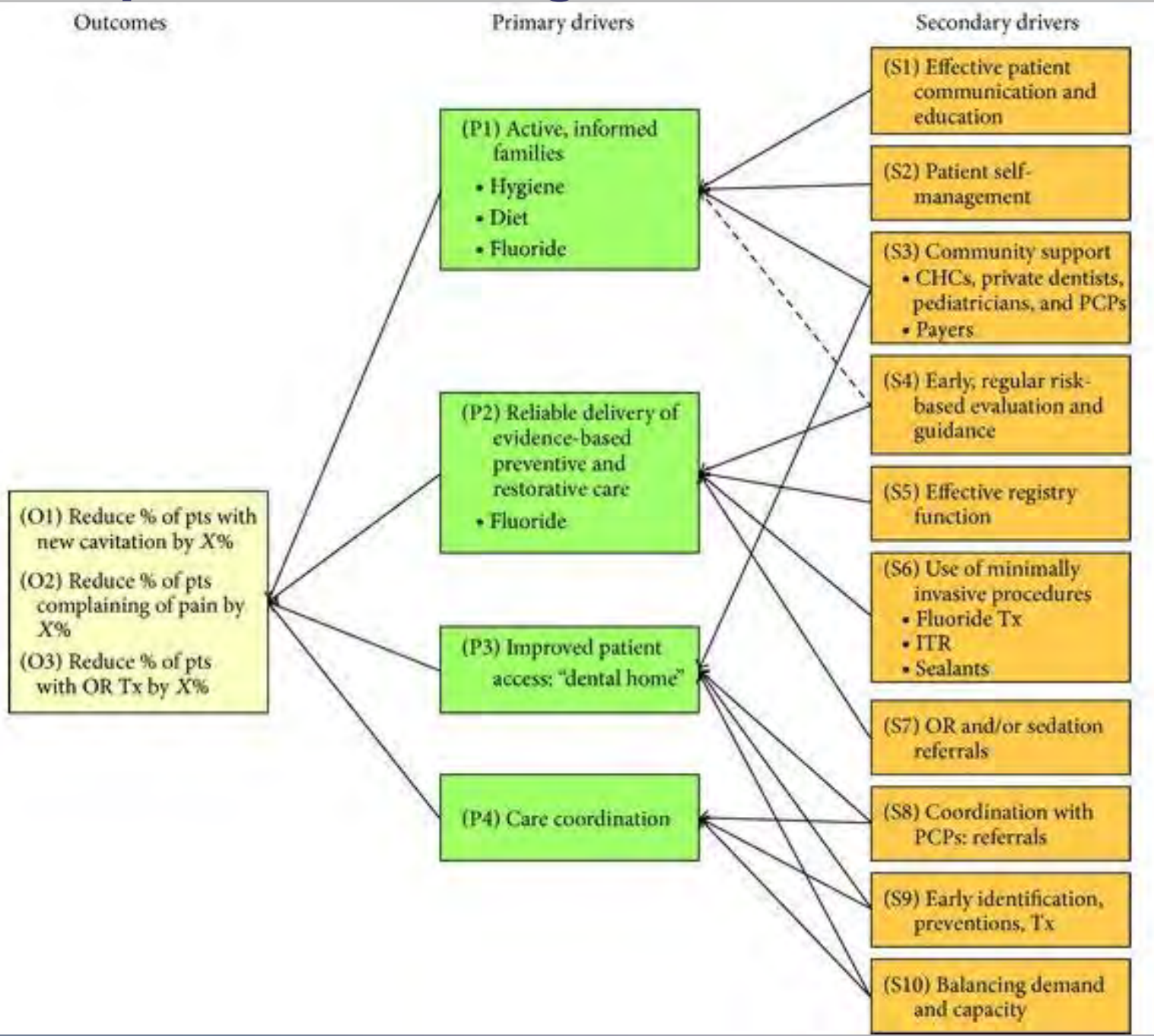
AIM	Driver 1	Change Idea
		Change Idea
	Driver 2	Change Idea
		Change Idea

**AIM:** A clearly articulated goal or objective describing the desired outcome. It should be specific, measurable and time-bound.

**DRIVER:** System components or factors that contribute to achieving the aim.

**CHANGE IDEAS:** Specific actions which will support/achieve the driver.

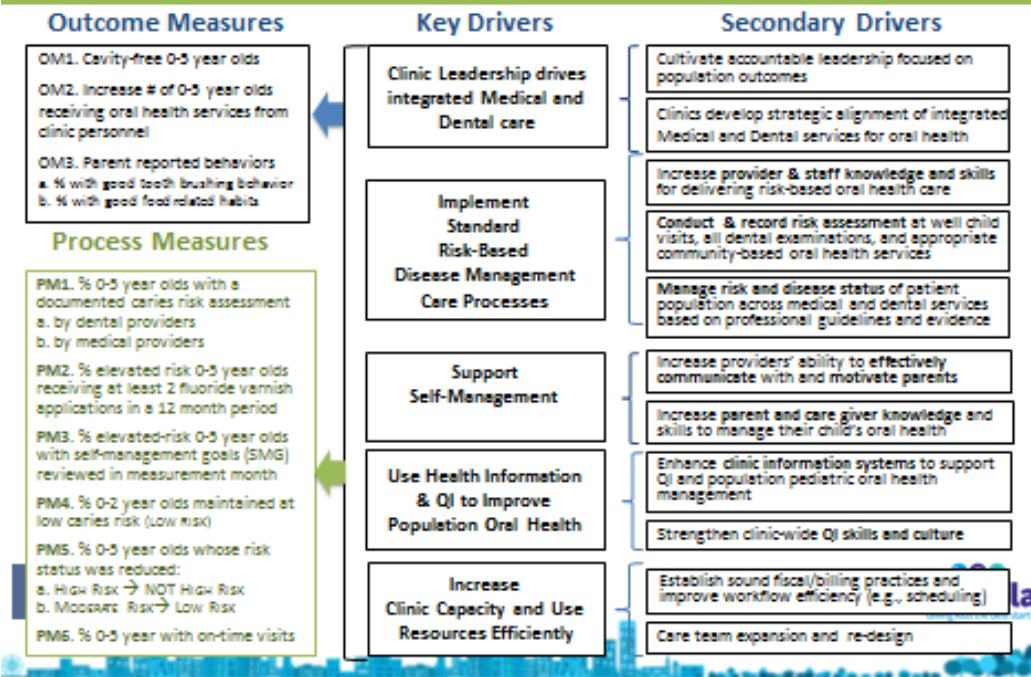
# Sample Driver Diagram



Source: Ng, Man Wai, Gomez, Francisco, Lieberman, Martin, Lee, Jessica, Scoville, Richard & Hannon, Cindy & Maramaldi, Peter. (2014). Disease Management of Early Childhood Caries: ECC Collaborative Project. International journal of dentistry. 2014. Figure available at: [https://www.researchgate.net/figure/261604683\\_fig1\\_ECC-Phase-2-Driver-Diagram](https://www.researchgate.net/figure/261604683_fig1_ECC-Phase-2-Driver-Diagram)

**Aim:** To improve the health, well-being, and future success of LA county children, age 0-5, by improving their access to quality oral health care and reducing their caries risk. By June 2016:

- 13,000 additional 0-5 year olds being served at participating Community Health Centers will have received caries risk assessment and preventive services;
- the caries risk status of 10% of children initially at high risk will be reduced; and
- the percentage of 3-year-olds that are cavity-free will increase by 20%.



**Our Driver Diagram has been refined and simplified**

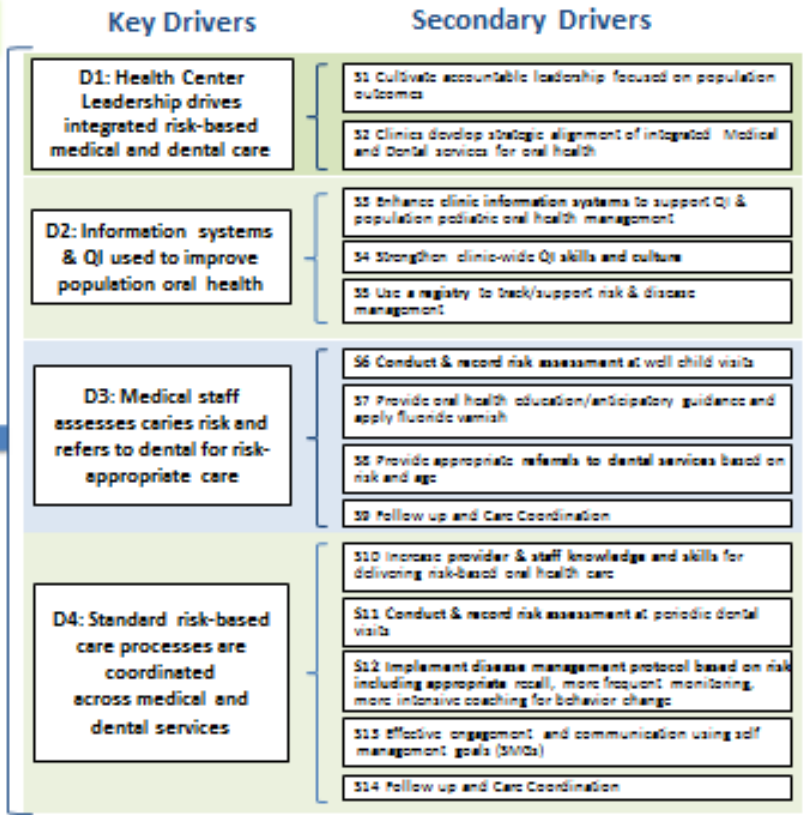


**QI LC Driver Diagram**

**Outcomes**

**Aim:** To improve the health and well-being of LA county children, age 0-5, by improving their access to quality oral health care and reducing their caries risk. By June 2016:

- 90% of 0-5 year olds served at participating Health Centers will have a documented caries risk assessment
- The caries risk status of 10% of children at elevated risk will be reduced
- 75% of children at elevated risk will receive disease management care that is appropriate to their risk status



To improve access to quality oral health care we need:

- 1) Health center leadership to drive the concept of integrated risk based medical and dental care
- 2) Information systems to support a prevention and population oriented approach to oral health, and QI skills to improve its use,
- 3) Medical staff to assess risk and refer to dental care, and
- 4) Dental providers to treat caries as a chronic disease, incorporate risk assessment and disease management, and coordinate with medical services to support behavior change.

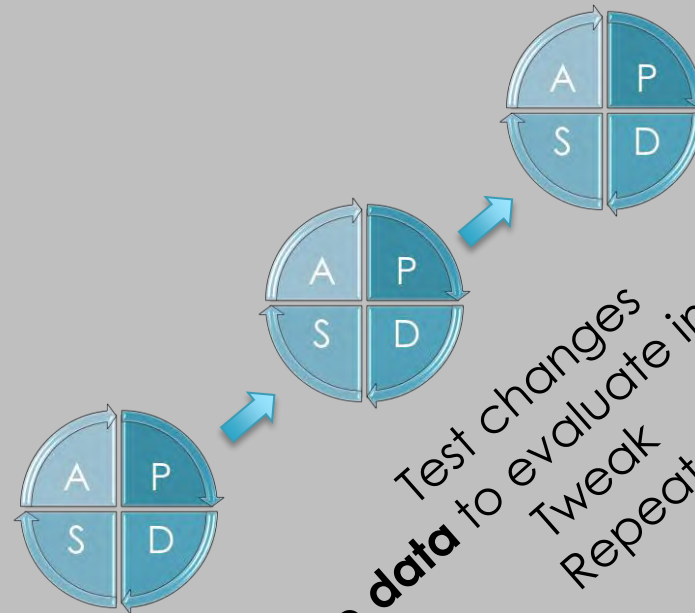
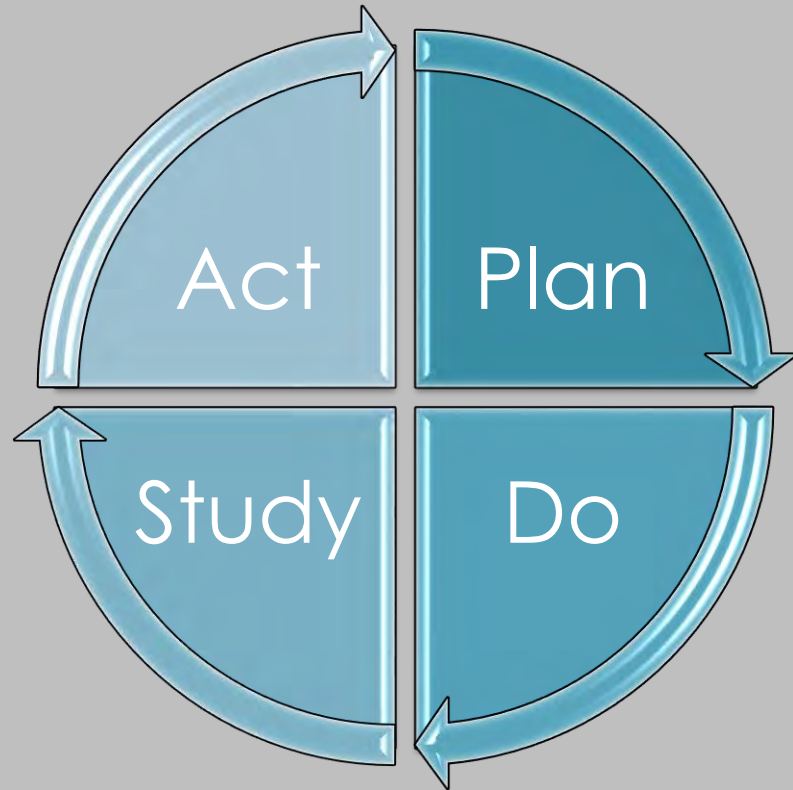
Rev 8-28-15 -#5



J. Crall\_UCLA-F5LA OHP



# Start SMALL: Test Changes



Use **data** to evaluate impacts  
Test changes  
Tweak  
Repeat

Implement  
system-wide

**Improvement tip:**  
The PDSA model may be operationalized differently at different "levels" (program, plan, practice) within the system.



# Phase 2 & 3 UCLA-First 5 LA QI Learning Collaborative

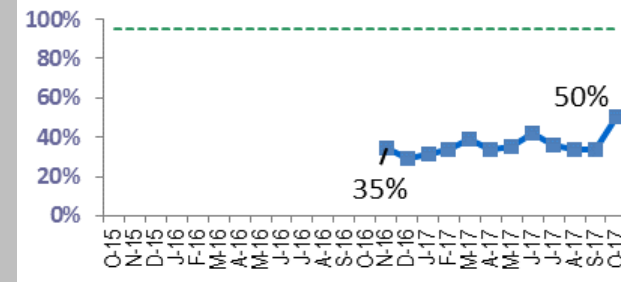
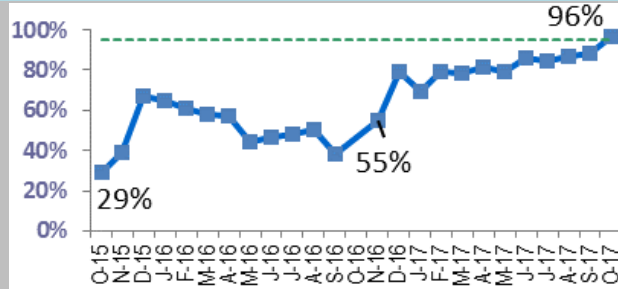
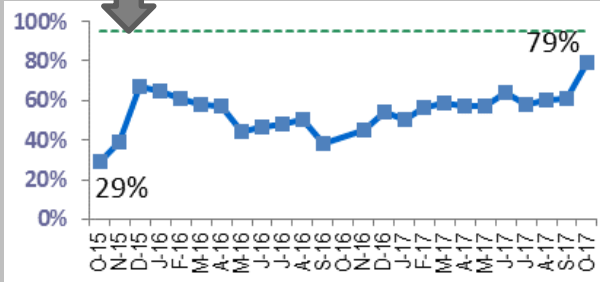
Average for Both Cohorts  
Ph2 n= 7, Ph3 n=13

Ph2/Cohort 2 – n=7

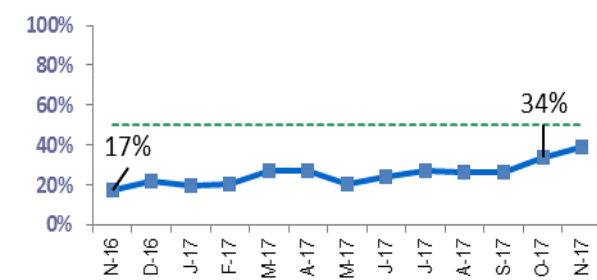
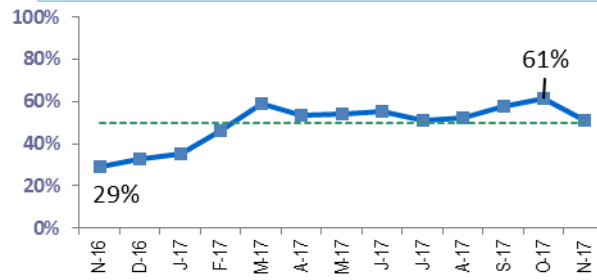
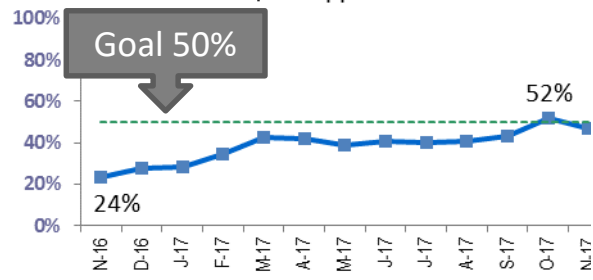
Ph3/Cohort 3 – n=6

Goal 95%

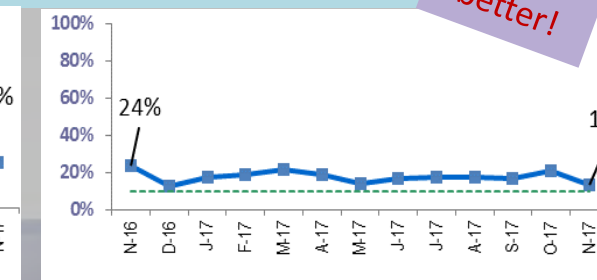
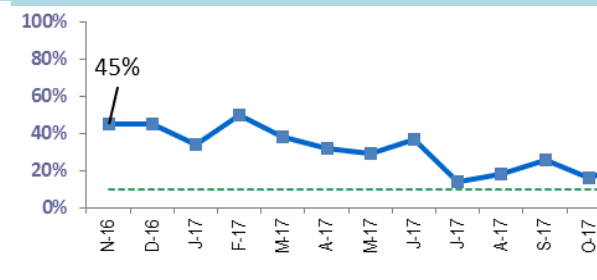
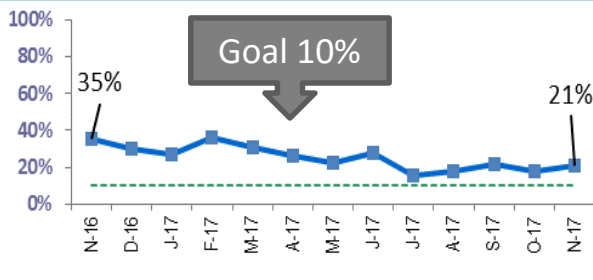
## PM1 - % 0-5 children with a Caries Risk Assessment at Well Child Visits



## PM7 - % 0-5 children with 2 Fluoride Applications in 12 months



## OM2 - % 0-5 children with Caries Diagnosis at Periodic Dental Exam



Lower is better!

# Outcomes are impacted by more than care delivery



DENTAL QUALITY ALLIANCE™

Improving Oral Health Through Measurement

The Expanded Chronic Care Model (Barr, 2003)



Source: Barr, V., S. Robinson, B. Marin-Link, L. Underhill, A. Dotts, D. Ravensdale, and S. Salivaras. 2003.

The expanded chronic care model: An integration of concepts and strategies from population health promotion and the chronic care model. *Hospital Quarterly* 7(1):73–82.

# Table Discussions

# Activity 2: Identify Measures and Change Ideas



1. Identify a **measure** that you can use to monitor whether improvement is occurring.
2. Identify a **change idea** that will help you to achieve intermediate aims and drive toward your overall care goal
3. Identify a **small test of change** you could implement
4. Discuss how you can **address barriers** to achieving your aims as part of your improvement process

# **Pulling it all together: examples of successful QI initiatives and resources**



# DQA Quality Innovators Spotlights

### Level of Implementation

- Care delivery systems: community clinic sites and organization (with potential for scaling up to larger systems)

### Target Population

- Children under age 6, including pre- and perinatal care

### Improvement Goal

- Increase capacity for community clinics to serve as quality dental homes for young children and pregnant women

### Essential Partners

- FQHC sites and organizations
- Medical and dental providers
- Community partners: child care referral agencies, child care providers, Head Start, WIC

### Key Measures

- Increase the number of 0-5 year-olds receiving oral health services
- Increase the number of preventive visits
- Reduce caries risk among children at elevated risk

### Measurement Data Source

- Clinic data reports

## DQA Quality Innovators Spotlight: *The Inside Story*

### How did this project start?

The project was funded by First 5 LA to identify and address multiple barriers in access to oral health care for children 0-5 and has been implemented in Los Angeles County, beginning in 2013. The project addresses several common, critical barriers to improving the oral health of children ages 0-5 in the safety net, including: 1) inadequate infrastructure for pediatric oral health care delivery (personnel, information technology); 2) limited knowledge, skills, and comfort in oral health care delivery for young children among dental and primary medical providers; 3) inadequate financial incentives to provide oral health care for young children; 4) limited integration of care delivery and collaboration among dental and medical providers; 5) lack of leadership and champions to promote oral health care within clinic organizations and local sites; and 6) limited knowledge of the importance of oral health care and development of healthy habits for young children among parents, child care providers and community partners.

### What were the key strategies to achieve the improvement goal?

The key strategies included:

- ❖ support for infrastructure enhancements (personnel, information technology)
- ❖ providing clinical and motivational interviewing training for dental and medical providers
- ❖ implementing a quality improvement learning collaborative (QILC) based on the IHI Breakthrough series model to promote system redesign and delivery of integrated care by medical and dental providers
- ❖ supporting outreach and community systems development to promote population health approaches collaboratively with clinic outreach activities and community partners

Key drivers for the quality improvement learning collaborative included:

- ❖ engage health center leadership to drive integrated risk-based medical and dental care
- ❖ use information systems and quality improvement to improve population oral health
- ❖ medical and dental providers and staff collaborate to provide integrated care
- ❖ standard risk-based care processes coordinated across medical & dental services
- ❖ integrate oral health into population health activities.

### What improvements were achieved?

Participating FQHCs reported a 3.3-fold increase in preventive services for children ages 0-5 between January 2014 and December 2015. Reports from the second phase of the QILC noted a doubling of the number of children ages 0-5 receiving oral health care services, reductions in caries risk status in 28% of high-risk children, and development of reliable systems for conducting caries risk assessments (88% at dental visits and 70% at well-child visits).

### What were the main challenges that needed to be overcome?

- ❖ Overcoming 'siloed' approaches to care delivery by dental and medical providers
- ❖ Engaging senior clinic leadership / creating the 'business case' for system change
- ❖ Creating time for teams to learn about and implement quality improvement

### What was the overall impact of this program?

First 5 LA is a County-Wide project, with over 10 million residents and over 3.5 million children under the age of 6 in Los Angeles County. This project impacted multiple FQHC clinics, as well as community partners such as Head Starts and WICs.

Significant funding, \$11M, was obtained to design and implement this program, and quality improvement learning was approximately 3% of the budget for three cohorts of participating clinics.

# DQA Quality Innovators Spotlights

## Program

- Altarum SmileConnect®: increasing the % of children with a dental home through medical-dental integration
- Virginia Oral Health Learning Collaborative: Increasing the % of children with early prevention and increasing the % of pregnant women with dental services through stakeholder engagement

## Plan

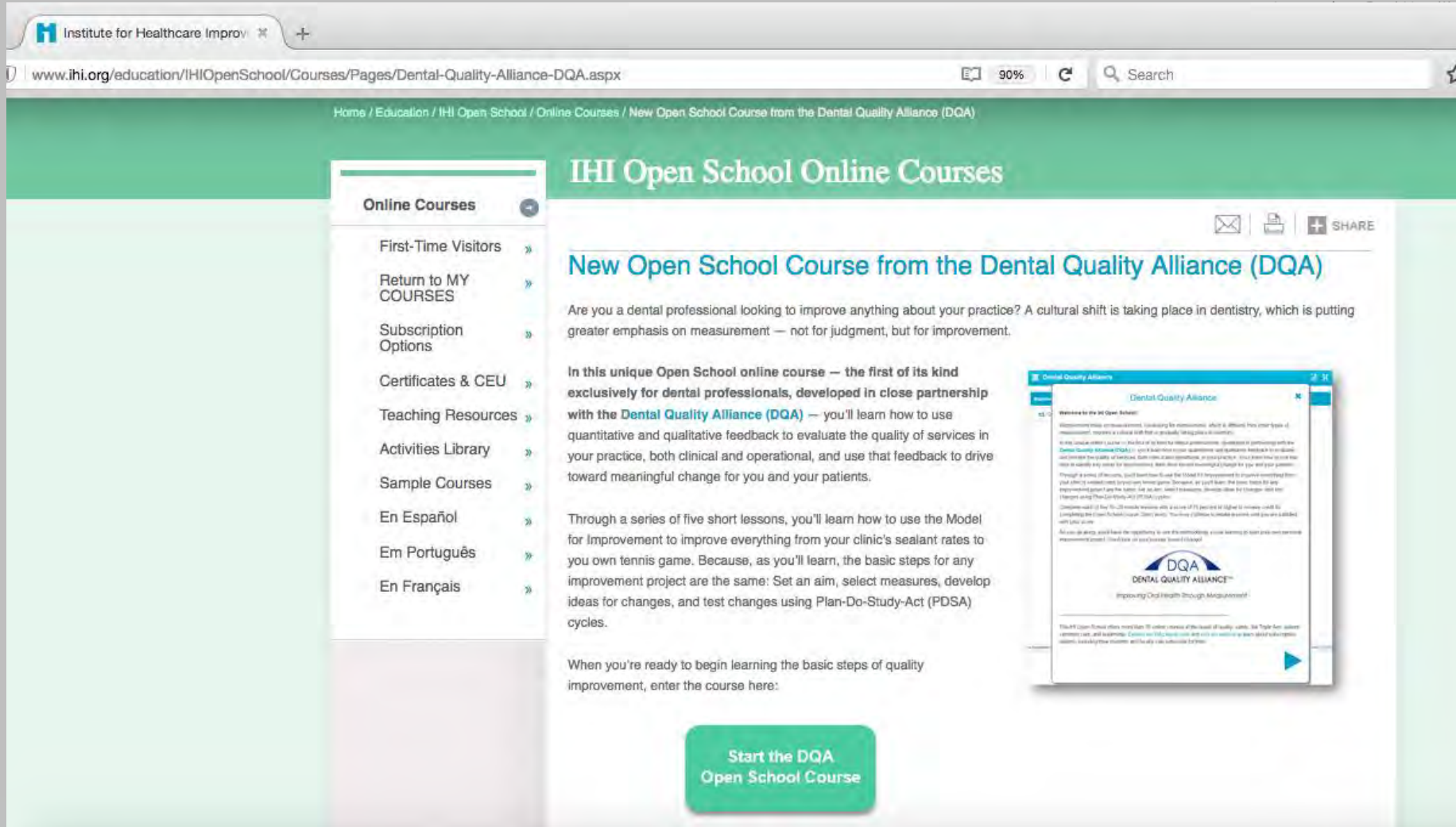
- Delta Dental of Massachusetts Preventistry<sup>SM</sup>: Increasing the % of children at risk for caries and the % adults with periodontal disease who receive evidence-based prevention through benefit design and provider education, reports, and incentives

## Practice

- Boston Children's Hospital and St. Joseph Health Services of Rhode Island Learning Collaborative: reducing early childhood caries by incorporating risk-based disease management protocols
- UCLA's First 5 LA 21<sup>st</sup> Century Community Dental Homes Project: improving access to oral health care for young children and pregnant women through community clinics

# DQA Resources: IHI-DQA QI Module

## QI Example: Reducing NV-HAP through Oral Care



The screenshot shows a web browser window with the URL [www.ihl.org/education/IHIOpenSchool/Courses/Pages/Dental-Quality-Alliance-DQA.aspx](http://www.ihl.org/education/IHIOpenSchool/Courses/Pages/Dental-Quality-Alliance-DQA.aspx). The page title is "IHI Open School Online Courses". On the left, there is a sidebar menu under "Online Courses" with options: First-Time Visitors, Return to MY COURSES, Subscription Options, Certificates & CEU, Teaching Resources, Activities Library, Sample Courses, En Español, Em Português, and En Français. The main content area features a green header "IHI Open School Online Courses" and a sub-header "New Open School Course from the Dental Quality Alliance (DQA)". Below this, there is a paragraph: "Are you a dental professional looking to improve anything about your practice? A cultural shift is taking place in dentistry, which is putting greater emphasis on measurement — not for judgment, but for improvement." This is followed by a bolded paragraph: "In this unique Open School online course — the first of its kind exclusively for dental professionals, developed in close partnership with the Dental Quality Alliance (DQA) — you'll learn how to use quantitative and qualitative feedback to evaluate the quality of services in your practice, both clinical and operational, and use that feedback to drive toward meaningful change for you and your patients." To the right of this text is a small image of a document titled "Dental Quality Alliance" with the DQA logo. Below the main text, another paragraph states: "Through a series of five short lessons, you'll learn how to use the Model for Improvement to improve everything from your clinic's sealant rates to your own tennis game. Because, as you'll learn, the basic steps for any improvement project are the same: Set an aim, select measures, develop ideas for changes, and test changes using Plan-Do-Study-Act (PDSA) cycles." At the bottom of the main content area, there is a green button that says "Start the DQA Open School Course".

<http://www.ihl.org/education/IHIOpenSchool/Courses/Pages/Dental-Quality-Alliance-DQA.aspx>



# DQA Resources

## Measurement

- Measure specifications
- User Guide
- Current development activities

## Improvement

- Quality Innovators Spotlights
- Medicaid QI Learning Academy
- IHI Open School Course

## Educational Resources

- Guidebook
- Publications and white papers
- Video tutorials

## DQA Website

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

## Additional questions?



Contact DQA  
staff at  
[dqa@ada.org](mailto:dqa@ada.org).

# 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**



# Contact Information



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# Thank you!