Innovations in Integrated Service Delivery for Pre-School Age Children: UCLA-First 5 LA Oral Health Program

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Orlando, FL
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Learning Objectives

○ **Objective 1:** Describe an innovative system designed to improve care delivery and oral health for young children based on addressing dental caries as a chronic, complex, multi-factorial disease

○ **Objective 2:** Highlight applications of quality improvement methods, training and skills to promote and integrate risk-based care by dental, medical and community outreach personnel

○ **Objective 3:** Describe the training and use of community dental home coordinators to enhance community outreach and care integration, and training programs for medical and dental personnel
Plan for Today

- Overview of the UCLA-First 5 LA Oral Health Program
  - 21st Century Dental Homes Project
  - Children’s Dental Care Program
- Overview of the Breakthrough Series Collaborative
- Apply specific tools from the Breakthrough Series to provide interactive learning
- Small group work and exercises with...candy!! 😊
Children’s Oral Health in the U.S. & CA

- 28% of U.S. 2-5 year olds have caries experience – ECC rising
- ~ 54% of CA children have caries experience by kindergarten
  - 28% have untreated decay / 19% have extensive decay
- > 70% of CA children have caries experience by 3rd grade
- < 50% of U.S. children visit a dentist annually
- Persistent oral health disparities
- Growing recognition of importance of early interventions
UCLA-F5LA Partnership: Multi-faceted approach focused on young children & families

DHP: 12 clinics
CDCP: 10 clinics

~ 530,000 0-5 year olds with public coverage, but no use of services
UCLA-First 5 LA
Oral Health Program

- Multi-faceted approach

- Interventions geared toward:
  - Increasing services provided at clinics
  - Reaching parents through child care providers (and other community-based approaches)

- Important investments:
  1. Clinic assessments and enhancement plans
  2. Funding provided to clinics to hire dental home coordinators and implement enhancement plan
  3. Staff and provider trainings (dental, medical, outreach)
Program Objectives

- Address barriers that limit young children's access to oral health/dental care services and clinics’ abilities to serve as dental homes for at-risk children
- Increase providers’ awareness of the importance of oral health/dental services and dental homes for children 0-5
- Increase # of children 0-5 who receive preventive services from dental, medical and community health care providers
- Increase # of clinic dentists that treat children ages 0-5
- Increase parents’ and caretakers’ awareness of the importance of oral health for young children
- Establish sustainable systems that promote oral health education and access to risk-based care within community clinics’ primary care perinatal, pediatric and dental services
Program Goals

- Increase access to dental and oral health care for children ages 0-5 in LA County
  - ...in partnership with up to 22 FQHCs /community clinic providers and
  - ...serve 53,000 additional children ages 0-5 over the course of the projects.

- Improve the capacity of community clinics to deliver quality oral health care to young children,

- Increase parents’ and child care providers’ awareness of the importance of oral health care for preschool children,

- Develop a sustainable community “dental home” model.
Strategic Partners

- DentaQuest Institute’s Safety Net Solutions Program
  - conduct clinic site visits; assess clinics’ operational & functional capacity; develop enhancement plans; provide technical assistance to increase clinics’ capacity to provide dental/oral health services to underserved 0-5 year-old children & pregnant women.

- Community Clinic Association of Los Angeles County
  - provide support for clinic quality improvement and learning collaborative activities and serve as a liaison with community clinics.

- Child Care Alliance of Los Angeles
  - provide trainings to child care providers in community settings and linkages to parents
ONLINE TRAINING:  
Smiles for Life National Curriculum for all primary care providers and staff.

ADVANCED TRAINING:  
Caries Management and Pulp Therapy Course and Workshop (for dentists only).

DENTAL HOME COORDINATOR/CHW TRAININGS:  
Basic training for DHC/CHW and outreach staff in ECC case management within clinics and communities.

ADDITIONAL ONLINE TRAINING:

BASELINE TRAININGS:  
Early Childhood Caries, Risk Assessment and Disease Management for all primary care providers and staff.

ON-SITE HANDS-ON TRAININGS:  
Provided by UCLA Pediatric Dental faculty to medical and dental providers within each clinic.

PEDIATRIC DENTIST ORIENTATION:  
Pediatric dentists hired by clinics will receive orientation on how to serve as a resource for training additional staff members within each clinic.

The start of a journey toward improved oral health care and oral health for young children and families within the communities you serve ....
UCLA-First 5 LA QI Learning Collaborative Aims

- To implement a *population health-based system* of oral health care ......

- in partnership with community health centers that:
  1. integrates dental, medical and community outreach services to reduce caries risk
  2. ‘triages’/’channels’ children to effective and efficient care pathways based on risk level
  3. improves the oral health and caries risk status of children ages 0-5 years
Population-Based Approach for Dental / Oral Health Care Delivery

ASSESSMENT PARAMETERS

- **RISK LEVEL** (low, high)
- **LESION STATUS** (none, initial, advanced)
- **NEED FOR TREATMENT** (urgent, basic, advanced)

- **No Lesions**
  - **Low Risk**
  - **High Risk**

- **Initial Lesions Only**
- **Advanced Lesions**

- **Recommend dental exam within 12 mos.**
- **Counseling to maintain low risk (diet, fluoride toothpaste)**
- **Anticipatory guidance**
- **Recommend primary prevention (e.g., fluoride, sealants)**
- **Data entry**
- **Care Coordination (as needed)**

- **Refer to dental home for dental exam & preventive services**
- **Risk reduction program**
- **Anticipatory guidance**
- **Reassess progress per program guidelines**
- **Data entry**
- **Care Coordination (as needed)**

- **Refer to dental home for diagnosis (dx) & treatment (tx) ASAP**
- **Initial disease mgt. program to control disease / reduce risk**
- **Anticipatory guidance**
- **Reassess progress per program guidelines**
- **Data entry**
- **Care Coordination (as needed)**

- **Refer to dental home for dx & tx ASAP**
- **Advanced disease management program to control disease and reduce risk**
- **Anticipatory guidance**
- **Reassess progress per program guidelines**
- **Data entry**
- **Care Coordination (as needed)**

Encounter

Lesions?

Risk

No

Elevated

Low

Yes

Tx Level

Initial

Advanced

Prevention

• Anticipatory Guidance
• Fluoride varnish
• Reassess in 6-12 months
• Data Entry

• Refer to Dental Home
• Anticipatory Guidance
• Fluoride varnish
• Reassess in 3-6 months

• Counseling
• Care coordination.
• Data Entry

Disease Mgt.

• Establish Dental Home
• Assess Risk
• Fluoride varnish
• Restorative Tx
• Anticipatory Guidance
• Self-mgt goals
• Reassess in 3-6 months

• Counseling
• Care coordination.
• Data Entry

• Establish Dental Home
• Assess Risk
• Fluoride varnish
• Restorative Tx
• Anticipatory Guidance
• Self-mgt goals
• Reassess in 1-3 months

• Counseling
• Care coordination.
• Data Entry

UCLA Project Team / Partners

- **UCLA Faculty:**
  - Jim Crall, Pamela Davidson, Todd Franke, Lourdes Guerrero, Moira Inkelas, Honghu Liu, Carl Maida, Chanel McCreedy, Nady Pourat, Francisco Ramos-Gomez, Dylan Roby, Daniela Silva

- **UCLA Project Staff:**
  - Efren Aguilar, Mary Esser, Robin Flint, Jennifer Holtzman, Sheila Jefferson, Colleen Lampron, Jordan McCreary, Dwayne Norman, Helly Patel, Tarun Sandhu, Aaron Shearer

- **DentaQuest Institute / SNS:**
  - Mark Doherty, Cindy Hanson, Marty Lieberman, Man Wai Ng, Kelli Ohrenberger, Cathy Savinsky, Richard Scoville

- **CCALAC:**
  - Alex Romanoff, Rick Youngblood

- **CCALA:**
  - Cristina Alvarado, Fiona Stewart

- **Sesame Workshop:**
  - Jeanette Betancourt, Cynthia Barron, Rocio Galarza
Optimal Oral Health for All!
GROUP EXERCISE
Overview of Breakthrough Series

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It is not the strongest of species that survives, nor the most intelligent, but the one most responsive to change.

--Charles Darwin
The Breakthrough Series

An improvement method that relies on Spread and adaptation of existing knowledge to multiple settings to accomplish a common aim.

Based on collaborative learning to achieve breakthrough improvement.

BTS is not:

1. Research for new knowledge
2. Single-setting (team) focus
3. Small changes to existing systems
Topic Selection

1. Gap between science and practice
   - Current practice deviates from best available scientific knowledge
   - Evidence (3-4 articles)

2. Examples of better performance exist
   - At least one “sentinel” organization

3. Good for business
   - Lower costs
   - Improved outcomes

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

Select Topic (develop mission)

Expert Meeting

Develop Framework & Changes
Planning Group

Participants (10-100 teams)

Prework

LS 1
AP1

LS 2
AP2

LS 3
AP3*

Dissemination
Publications, Congress, etc.

Holding the Gains

*AP3 – continue reporting data as needed to document success

Supports

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

LS – Learning Session
AP – Action Period
Appreciation of a System

“System” = an interdependent group of items, people or processes working together to a common purpose
What are we trying to accomplish?

How will we know that a change is an improvement?

What change can we make that will result in improvement?

Model for Improvement

Plan

Act

Study

Do
Key Elements of Breakthrough Improvement

• **Will** to do what it takes to change to a new system

• **Ideas** on which to base the design of the new system

• **Execution** of the ideas
Key Questions

• What are we trying to change?
• How will we know a change is an improvement?
• What changes can we make that will result in improvement?
Idealized Design Process with Deliverables

**Deep Dive Team**

**Phase 0:** Generate new ideas
- Screen
- Observation
- Synthesis

**Deliverables:**
- Charter
- Design Targets
- Ideas/Concepts
- Captured learning & Prediction

Generate new ideas — Milestone 1

**Innovation Team**

**Phase 1:** Planning
- Phase 2: Concept design
- Phase 3: Prototype testing
- Phase 4: Pilot testing

**Deliverables:**
- Results of test
- Change Package
- Prediction
- Captured learning & Prediction

Test new ideas — Milestone 2

**Collaborative Teams**

**Phase 5:** Adapt & spread

**Deliverables:**
- Results of implementation & spread
- Captured learning & Prediction

Spread new ideas

Source: Ron Moen
IHI Breakthrough Series
(6 to 13 months time frame)

Select Topic (develop mission)

Expert Meeting

Develop Framework & Changes

Planning Group

Participants (10-100 teams)

Prework

Supports

- Email
- Visits
- Phone
- Assessments
- Monthly Team Reports

Congress, Guides, Publications etc.
Our **Aim** is to implement a population health-based system of oral health care in community health centers that integrates dental, medical and community outreach services to reduce caries risk, triages children to effective and efficient care pathways based on risk level, and improves the oral health and caries risk status of children ages 0-5 years.

### Outcomes

1. 0-3 year olds maintained at low caries risk (OUTCOME MEASURE – LOW RISK)
2. High-risk 0-5 year olds whose caries risk status was reduced (OUTCOME MEASURE – HIGH RISK)
3. Cavity-free 0-5 year olds (by caries experience and by age) (OUTCOME MEASURE – OVERALL)

### Key Drivers

#### Implement Risk-Based Care

- **PM 1/2**

#### Standardize Disease Management Processes

- **PM 3/5**

#### Support Self-Management

- **PM 4**

### Intervention/Change Concepts

- **•** Implement caries risk assessment in medical and dental
  - **•** Adopt clinic-wide care guidelines (medical/dental) based on caries risk and dental disease status
  - **•** Increase provider, clinical staff, and administrative and outreach staff awareness of caries risk

- **•** Customize risk-based disease management protocols for implementation in the practice
  - **•** Embed guidelines into clinic processes
  - **•** Follow risk-based disease management protocols
  - **•** Establish respective roles & responsibilities for medical and dental providers and staff
  - **•** Increase skills of providers and clinical staff in delivering risk-based oral & dental health care and disease management

- **•** Increase parent knowledge and skills in optimal prevention and disease management for young children
  - **•** Reduce caries risk using self-care management goals
  - **•** Deliver consistent, culturally sensitive messages across dental, medical and community outreach personnel
  - **•** Establish effective linkages with community stakeholders

- **•** Enhance clinic information systems to support QI and population pediatric oral health management
  - **•** Increase use of data for practice-wide improvement
  - **•** Strengthen clinic-wide QI skills and culture

- **•** Implement clinic enhancements that increase capacity to provide early childhood dental services by
  - **•** supporting/establishing a Dental home infrastructure
  - **•** improving practice management
  - **•** establishing sound fiscal/billing practices
  - **•** improving workflow efficiency (e.g., scheduling)

### Process Measures (PM)

- **PM1.** # 0-5 year olds with a documented caries risk assessment
- **PM2.** Reduction in the age at first risk assessment
- **PM3.** # of high risk 0-5 year olds receiving at least 2 fluoride varnish applications in a 12 month period
- **PM4.** # 0-5 year olds with self-management goals (SMG) reviewed in measurement month (from ECC)
- **PM5.** Completion of Phase I Tx
**Aim:** To implement a population health-based system of oral health care in LA Community Health Centers that supports effective and efficient care pathways based on risk level, and improves the oral health and caries risk status of children ages 0-5 years.

**Outcomes**

1. 0-3 year olds maintained at low caries risk (OUTCOME MEASURE – LOW RISK)
2. High-risk 0-5 year olds whose caries risk status was reduced (OUTCOME MEASURE – HIGH RISK)
3. Cavity-free 0-5 year olds (by caries experience and by age) (OUTCOME MEASURE – OVERALL)

**Key Drivers**

**Implement [Standardized] Risk Based Disease Management Care Processes**

**Support Self-Management**

**Use Health Information & QI to Improve Population Oral Health**

**Increase Clinic Capacity and Use Resources Efficiently**

**Secondary Drivers**

- Increase provider & staff knowledge and skills for delivering risk-based oral health care
- Conduct & record risk assessment at well child visits, all dental examinations, and appropriate community based OH services
- Manage risk and disease status of patient population across medical and dental services based on professional guidelines and evidence
- Increase providers ability to effectively communicate with and motivate parents
- Increase parent knowledge and skills to manage their child’s oral health
- Enhance clinic information systems to support QI and population pediatric oral health management
- Strengthen clinic-wide QI skills and culture
- Increase capacity to provide early childhood dental services by
  - Establishing sound fiscal/billing practices
  - Improving workflow efficiency (e.g., scheduling)

**Process Measures (PM)**

- **PM1.** % 0-5 year olds with a documented caries risk assessment
- **PM2.** Reduction in the age at first risk assessment
- **PM3.** # of high risk 0-5 year olds receiving at least 2 fluoride varnish applications in a 12 month period
- **PM4.** % 0-5 year olds with tx plan completed
- **PM5.** % 0-5 year olds with self-management goals (SMG) reviewed in measurement month (from ECC)
<table>
<thead>
<tr>
<th>Target goal</th>
<th>Measure</th>
<th>Numerator</th>
<th>Denominator</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome Measures</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>50%</td>
<td>1. 0-3 year olds maintained at low caries risk (OUTCOME MEASURE – LOW RISK)</td>
<td>Children &lt; 48 months maintained low risk status</td>
<td>Children categorized as low caries risk in medical AND dental</td>
</tr>
<tr>
<td>&gt;25%</td>
<td>2. High-risk 0-5 year olds whose caries risk status was reduced (OUTCOME MEASURE – HIGH RISK)</td>
<td>Children &lt; 72 months categorized as high risk that had subsequent risk status of medium or low risk</td>
<td>Children &lt; 72 months categorized as high risk</td>
</tr>
<tr>
<td>50%</td>
<td>3. Cavity-free 0-5 year olds (by caries experience and by age) (OUTCOME MEASURE – OVERALL)</td>
<td>Dental clinic patients &lt;72 months (at last visit) with no new decay at recall visits</td>
<td>Medical and Dental clinic patients &lt; 72 months</td>
</tr>
<tr>
<td>53k</td>
<td>4. Utilization Measure - Proportion of kids in medical/kids in dental or % of Medical also in Dental - Increase in # 0-5 yr old receiving oral health services - % increase in dental panel</td>
<td>Project goal is 53,000. Will prorate based on # of clinics participating in QI LC.</td>
<td></td>
</tr>
<tr>
<td><strong>Process Measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;80%</td>
<td>PM1. % 0-5 year olds with a documented caries risk assessment (PROCESS MEASURE - ARE WE DOING IT?)</td>
<td>Children &lt;72 months who have a documented risk classification (CDT codes for low, moderate and high risk)</td>
<td>Clinic patients in medical and dental clinic &lt;72 months</td>
</tr>
<tr>
<td></td>
<td>PM2. Reduction in the age at first caries risk assessment (PROCESS MEASURE - ARE WE DOING IT EARLIER?)</td>
<td>Look for shift in distribution and shifts over time from baseline</td>
<td></td>
</tr>
<tr>
<td>&gt;65%</td>
<td>PM3. # of high risk 0-5 year olds receiving at least 2 fluoride varnish applications in a 12 month period (PROCESS MEASURE – targeted preventive services)</td>
<td>Children &lt;72 months with high caries risk that received 2 Fluoride varnish applications in 12 month period</td>
<td>Clinic patients &lt;72 months with high caries risk (in medical and dental clinic)</td>
</tr>
<tr>
<td>&gt;75%</td>
<td>PM4. % of 5 year olds with tx plan completed, created at comprehensive or periodic exam, within 6 months</td>
<td>Children &lt;72 months with exam, and completed tx/ Dental clinic patients age &lt;72 months with comprehensive or periodic exam</td>
<td></td>
</tr>
<tr>
<td>&gt;80%</td>
<td>PM5. % 0-5 year olds with self-management goals (SMG) reviewed in measurement month (from ECC) (PROCESS MEASURE – targeted preventive services)</td>
<td>Children &lt;72 months with self-management goals reviewed / coach at last visit</td>
<td>Dental clinic patients &lt;72 months</td>
</tr>
</tbody>
</table>
Exercise

• What is a PDSA cycle?
## Model for Improvement

### Objective for this PDSA Cycle

**Plan:**
- **Questions:**
  
- **Predictions:**
  
- **Plan for Change or Test:** Who, What, When, Where

- **Plan for Collection of Data:** Who, What, When, Where

### Do:

- Carry out the change or test; collect data and begin analysis.

### Study:

- Complete analysis of data; summarize what was learned.

### Act:

- Are we ready to make a change? Plan for the next cycle.
Activity Set Up

1. Work individually on the peg worksheet
2. Working with your table, complete the PDSA worksheet
3. Test changes
4. How many open number were left? – what is the variation in the room?
5. 3\textsuperscript{rd} data point
6. Debrief and enjoy your candy
Thanks! - You / First 5 LA

Questions???

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