

# Developing an Effective Community Oral Health Workers program for Early Head Start

**GOAL:** Collaborative community participatory research to help reduce the burden of Early Childhood Caries in LA County

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**UCLA** School of Dentistry  
Section of Pediatric Dentistry

# Developing an Effective Community Oral Health Workers program for Early Head Start



UCLA IRB # 18-000014 ACFF Community Oral Health Workers (COHW) Project)



# A collaborative community research project between:

## UCLA School of Dentistry - SPICE-PD

Strategic Partnership for Interprofessional Collaborative Education in Pediatric Dentistry – SPICE – Research and Statistics Module  
[www.uclachatpd.org](http://www.uclachatpd.org)

❖Funding: HRSA supports dental resident research

### 2017 - Trained 10 COHWs

#### Community Partners:

- Venice Family Clinic, Santa Monica, CA
- Westside Children's Center, Culver City, CA

**Sponsor/Funding:** CA Office of Statewide Health Planning & Development (OSHPD)

### 2018 - Trained 13 COHWs

**Community Partner:** Hope Street Margolis Family Center, Downtown Los Angeles

**Sponsor/Funding:** Alliance for a Cavity Free Future



# Prevalence & Impact of ECC in California

- ❖ California = one of the most ethnically diverse states in the U.S.
  - Over 1.6 Million children under 5 years of age
- ❖ ECC still the #1 chronic disease among children:
  - **By 3<sup>rd</sup> grade: Over 70% of CA children have caries**
  - **Untreated ECC** → many detrimental effects
    - ***For the child:*** pain and suffering, anesthesia & risk, delayed development (from nutrition and sleep problems), → ***decreased educational attainment***
    - ***Lost school days*** (\$\$ to schools + parent lost wages)
    - ***For family:*** mental distress, cost, lost wages, etc.
- ❖ **Communities of color - *Disproportionately affected***
  - Lack access to care
  - Face many barriers to health care
- ❖ **Latinos** constitute > half of the youth population
  - Carry the majority of the burden of ECC







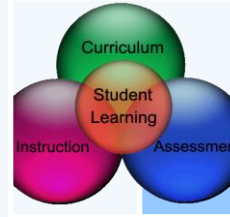
# 3 Phases of each 12-months Projects Progress & Outcome evaluation



## Phase 1

- **UCLA Team selection** (students, residents, nursing students, staff & faculty advisors)
- **Focus Groups**
- **Recruitment of COHW trainees**
  - 2017 = 10
  - 2018 = 13

(Months 1-2)



## Phase 2

**Curriculum design**

- 2018: multiple revisions

**Training of the COHWs**

(Months 2-6)



## Phase 3

**Community workshops**

- **Total: 15**
- **Total: 184 attendees**

(Months 7-11)

**Evaluation and reporting**

(Month 12)



# 3-Part Curriculum (4 classes: 2 hours each, over 6 weeks. Myths addressed + time to practice)



## 1. Community Oral Health Workers & Introduction to Oral Health

- Introduction to basic oral health - Adult
- Childhood Caries development
- Caries risk & protective factors
- Prevention tips - all ages



## 2. Pregnancy & Newborn

- Oral health care during pregnancy - SAFETY
- Pregnancy gingivitis
- Morning sickness treatment
- Tap water
- Nutrition
- "Breast is best"
- etc.



## 3. Infants & Toddlers

- Nutrition & Snacking
- Brushing and flossing basics
- White Spot Lesions
- Caries progression
- Caries balance
- Fluoride (TP, varnish, water)
- Teething
- Thumb sucking
- ... And more...

## 4. Child Dental Treatments & Motivating Parents to Change

- Radiographs
- Types of child dental treatments
- Emergency dental care
- Nitrous oxide vs. oral sedation vs. GA
- Insurance
- Self management goals
- Motivational Interviewing (Basics)

# Curriculum & Parent education flipchart



**UCLA** School of Dentistry  
Section of Pediatric Dentistry

### Community Oral Health Workers project

A project generously supported by the **Alliance for a Cavity Free Future**

UCLA Center for Children's Oral Health and the Strategic Partnership for Interprofessional Collaborative Education in Pediatric Dentistry

*Parent Oral Health Education Flipchart*

**SPICE-PD**  
Revised 2018



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[www.uccoh.org](http://www.uccoh.org)

## White Spot Lesions Lesiones de Manchas Blancas

A close-up photograph of a child's upper teeth, showing a healthy, white, and smooth surface.

Healthy Teeth  
Dientes Saludables

A close-up photograph of a child's lower teeth, showing a healthy, white, and smooth surface.

Healthy Teeth  
Dientes Saludables

A close-up photograph of a child's upper teeth, showing white, chalky spots on the enamel, which are early signs of tooth decay.

Teeth with White Spot Lesions  
Dientes con Manchas Blancas

A close-up photograph of a child's lower teeth, showing white, chalky spots on the enamel, which are early signs of tooth decay.

Teeth with White Spot Lesions  
Dientes con Manchas Blancas

## Early childhood Caries Can Progress Quickly Las Caries de la Infancia Pueden Progresar Rápidamente

A close-up photograph of a child's upper teeth, showing white, chalky spots on the enamel, which are early signs of tooth decay.

White spots  
(Early tooth decay)

Manchas blancas  
(Caries Temprana)

1<sup>st</sup> month  
1<sup>er</sup> mes

A close-up photograph of a child's lower teeth, showing white, chalky spots on the enamel, which are early signs of tooth decay.

A close-up photograph of a child's upper teeth, showing a cavity (hole) in the enamel.

Tooth decay  
(Cavities)

Caries Dental  
(Caries)

A close-up photograph of a child's lower teeth, showing a cavity (hole) in the enamel.

A close-up photograph of a child's upper teeth, showing severe decay with large cavities and exposed pulp.

Severe decay  
(Cavities)

Caries Severa  
(Caries)

A close-up photograph of a child's lower teeth, showing severe decay with large cavities and exposed pulp.

6-8 months  
6-8 meses

8



# 2017 Materials and Methods - Project I Overview

## Intervention Group (N=10)

- 10 females caregivers (children ages 0-5 yrs)
- Pretest (27 items)
- **Training (13 modules)**
- Posttest (6 weeks later)
- **Caregivers gave 5 community oral health workshops**

## Comparison Group (N=10)

- 10 female caregivers (children ages 0-5 yrs)
- Pretest (27 items)
- **Given a handout on children's oral health**
- Posttest (6 weeks later)

# 2018 Materials and Methods - Project II Overview

## Intervention Group (N=13)

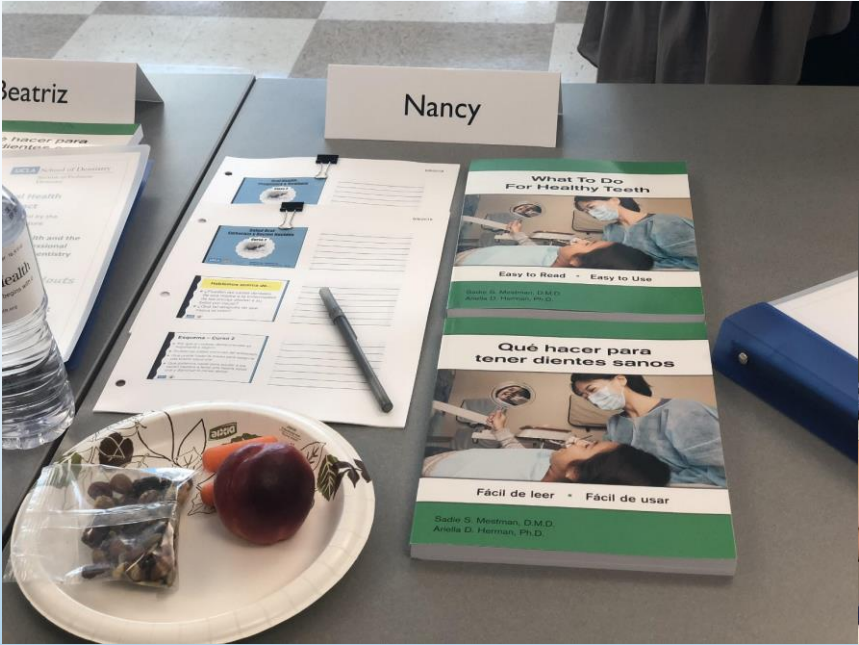
- 10 females caregivers (Children ages 0-5 yrs)
- Pretest (34 items)
- **Training** (online+ 8 hours + 2 practice sessions)
- Posttest (6 weeks later)
- **COHWs gave 10 community oral health workshops**

## Community Group (N=129)

- 129 female caregivers (primarily with children ages 0-5 yrs)
- Pretest (16 items)
- **1 hour presentation by COHWs with Pediatric Dentist support**
- Posttest (11 items)



# Training:





# Conclusions and limitations of the Pilot Project I (2017):

- 1. Caregiver's knowledge and practices about children's oral health** can be increased with a targeted & culturally competent intervention consisting of at least an 8-hour training course.
  - Handouts alone increased knowledge and practices too.
- 2. Oral health attitudes** may take longer to change or require different types of interventions and measurements to capture changes in attitude (avoid ceiling effect).
- 3. Limitation:** Small sample size. Parents may report engaging in “socially desirable” practices, not their actual behaviors.

# Conclusions and limitations of the Pilot Project I (2017):

4. Explore *different types of questions* to more accurately capture and understand caregiver attitudes and practices about children's oral health.

## 5. Future studies

- Larger sample size
  - Longer follow-up interval (6 months to 1 year)
  - Determine knowledge, attitudes, and practices of workshop ATTENDEES, with immediate follow-up - **done in Project II**
6. COHWs interested in pursuing careers in dentistry: explore opportunities to utilize COHWs expertise.



## Results Project I (2017):

### **Post intervention (COHW group) - Significant improvement regarding children's oral health in:**

- Total knowledge ( $p=.0005$ )
- Practices ( $p=.04$ )
- TREND for Attitudes ( $p=.08$ )

### **Comparison group (handout) - a significant increase in**

- Knowledge ( $p=.04$ )
- Practice ( $p=.04$ )

**Both groups** - significant increase in knowledge and practice  
Attitude change - trend for COHW intervention group only

*SMALL sample sizes...*



# Project II (2018)

## COHW Demographics (N=13)

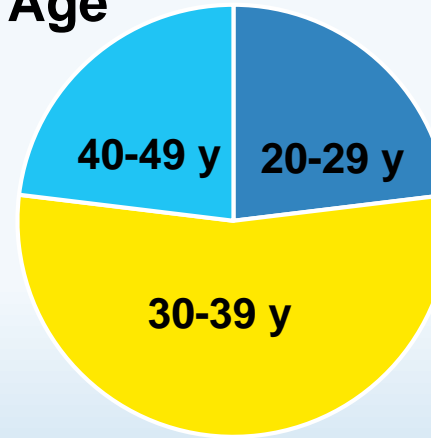
13 female caregivers

All Latina/Hispanic

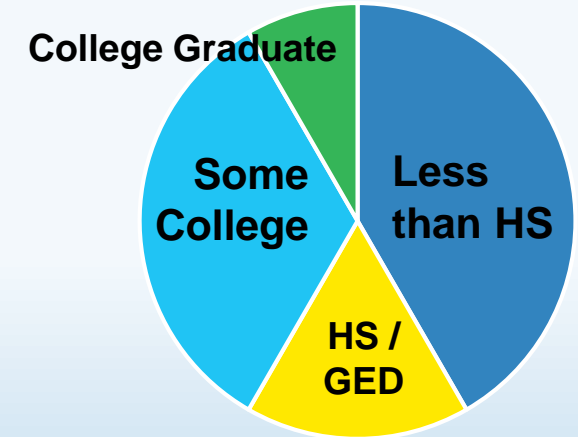
Mean # of children = 2.2  
(Range = 1-6)

Mean age = 8.2 yo  
(Range = 1 - 20.2 yo)

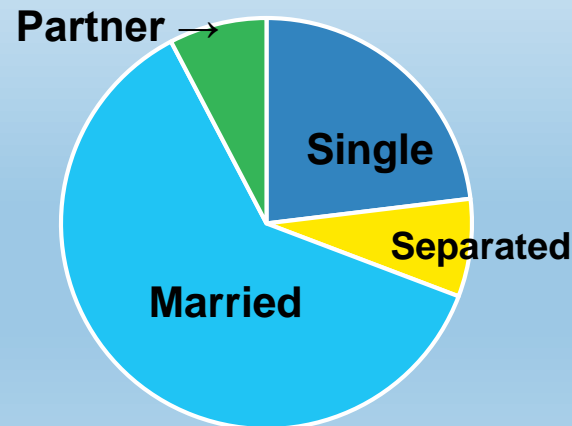
Age



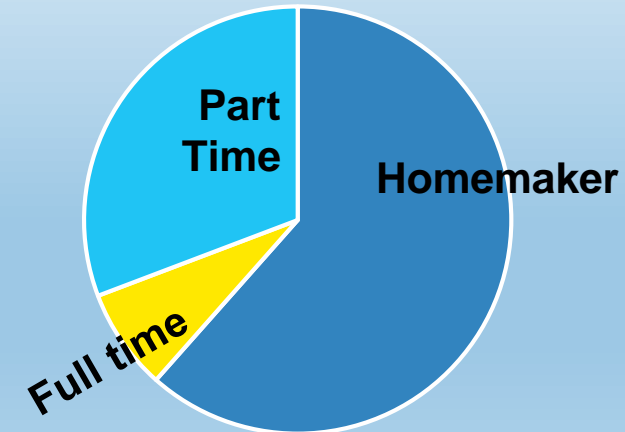
Education Level



Marital Status



Employment



# Project II (2018)

## Community Audience Demographics (N=129)

### All Latina/Hispanic

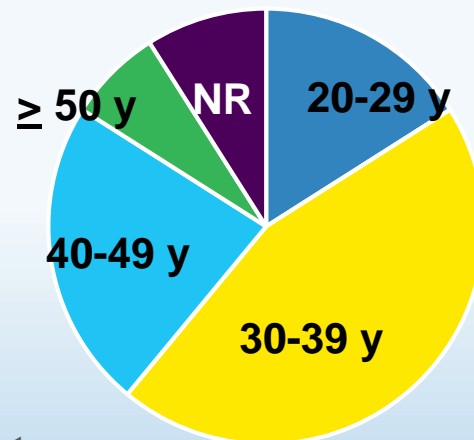
86% white  
7% multiracial

### Gender

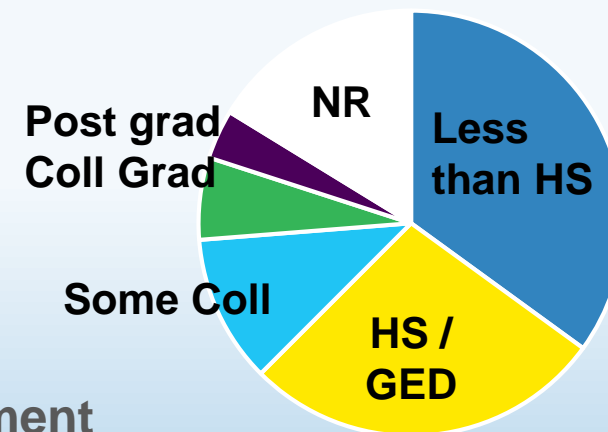
84% female  
9 % male  
7 % NR

NR = No Response

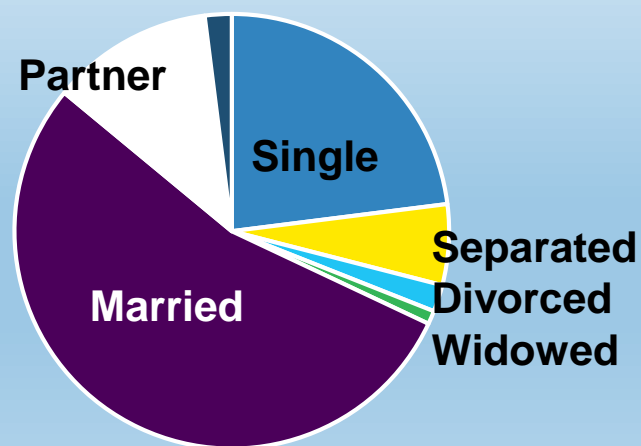
Age



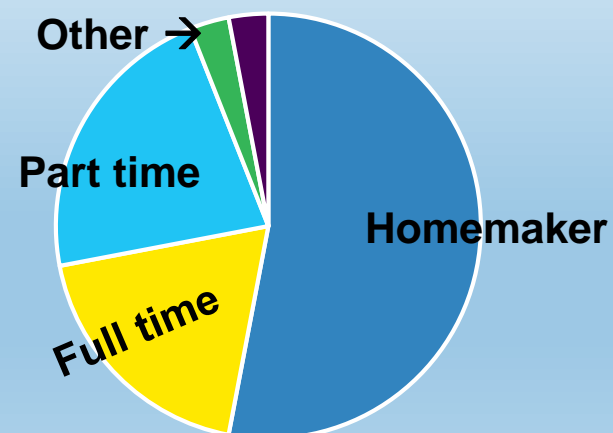
Education



Marital Status

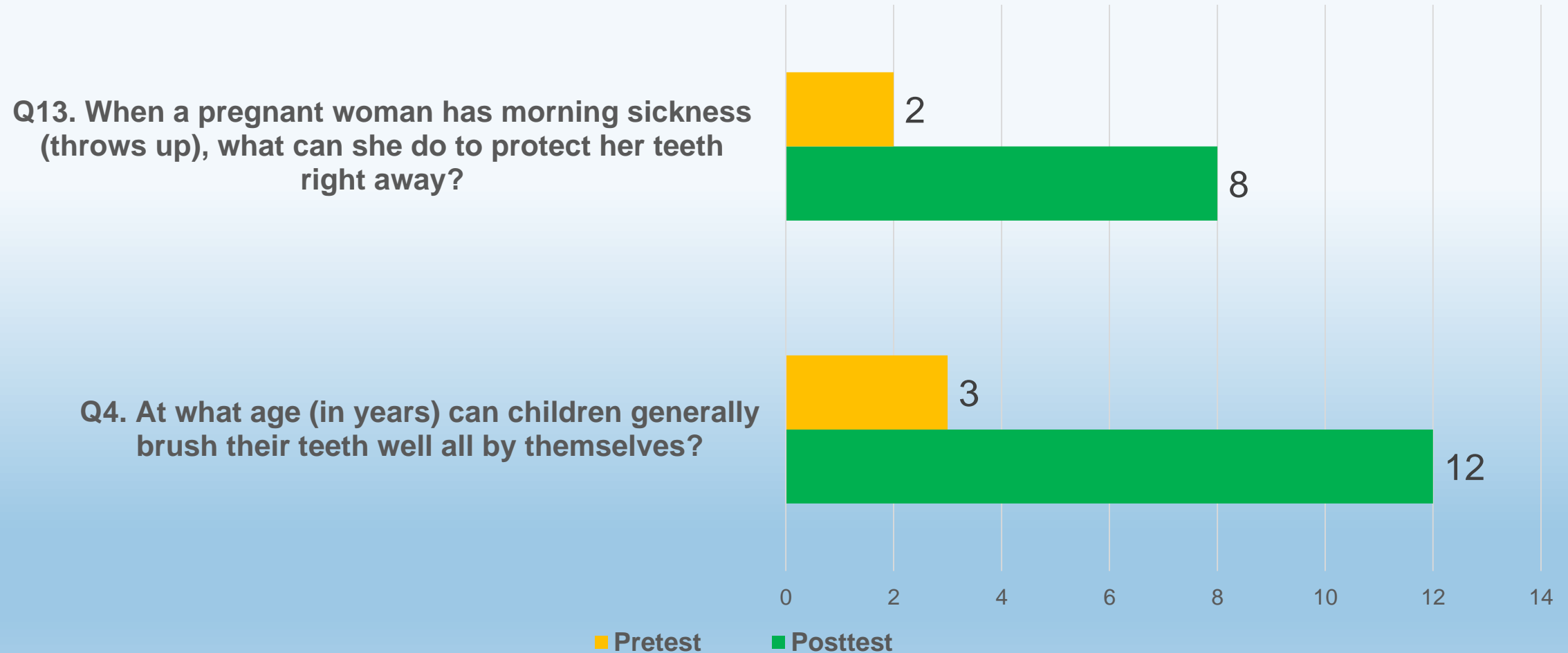


Employment



# Key Knowledge Findings COHWs II (2018) project:

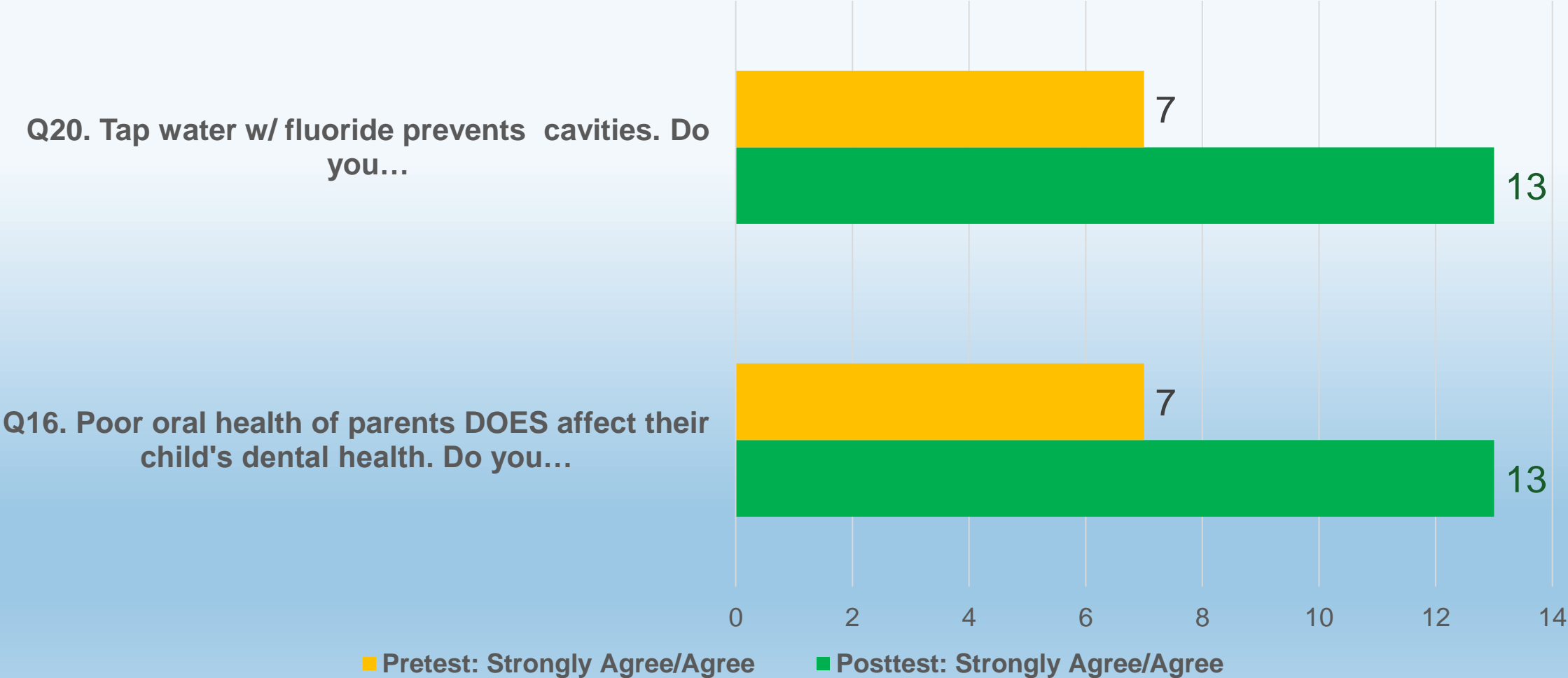
Community Oral Health Workers Pre/Posttest (N=13)  $p < 0.05$





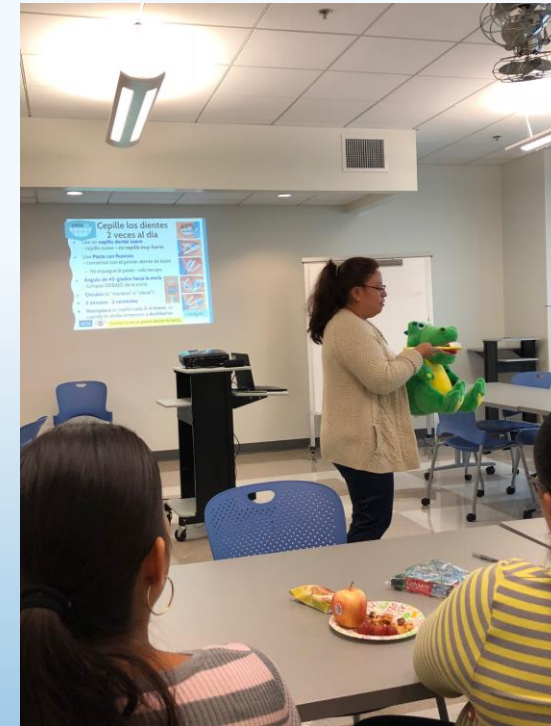
# Key Attitude Findings COHWs II (2018) project:

Community Oral Health Workers (N=13)



## Conclusions & limitations of the COHWs II (2018) project (N=13):

- ❖ ALL were Head Start policy council mothers with **high oral health IQ at start of project.**
  - Highly motivated to participate and learn
  - All reported that their children have a dental home
  - Last took their child to the dentist was routine care
- ❖ **LACK ADULT dental home:** 5 parents - due to...
  - Don't have insurance or not eligible for insurance
  - I don't have the money
  - Dental care too expensive
    - **Need affordable/accessible dental homes for low income adults.**
- ❖ **Need longitudinal studies** to determine if community oral health workers' efforts will actually reduce clinical ECC rate.
- ❖ Small convenience sample size: N=13

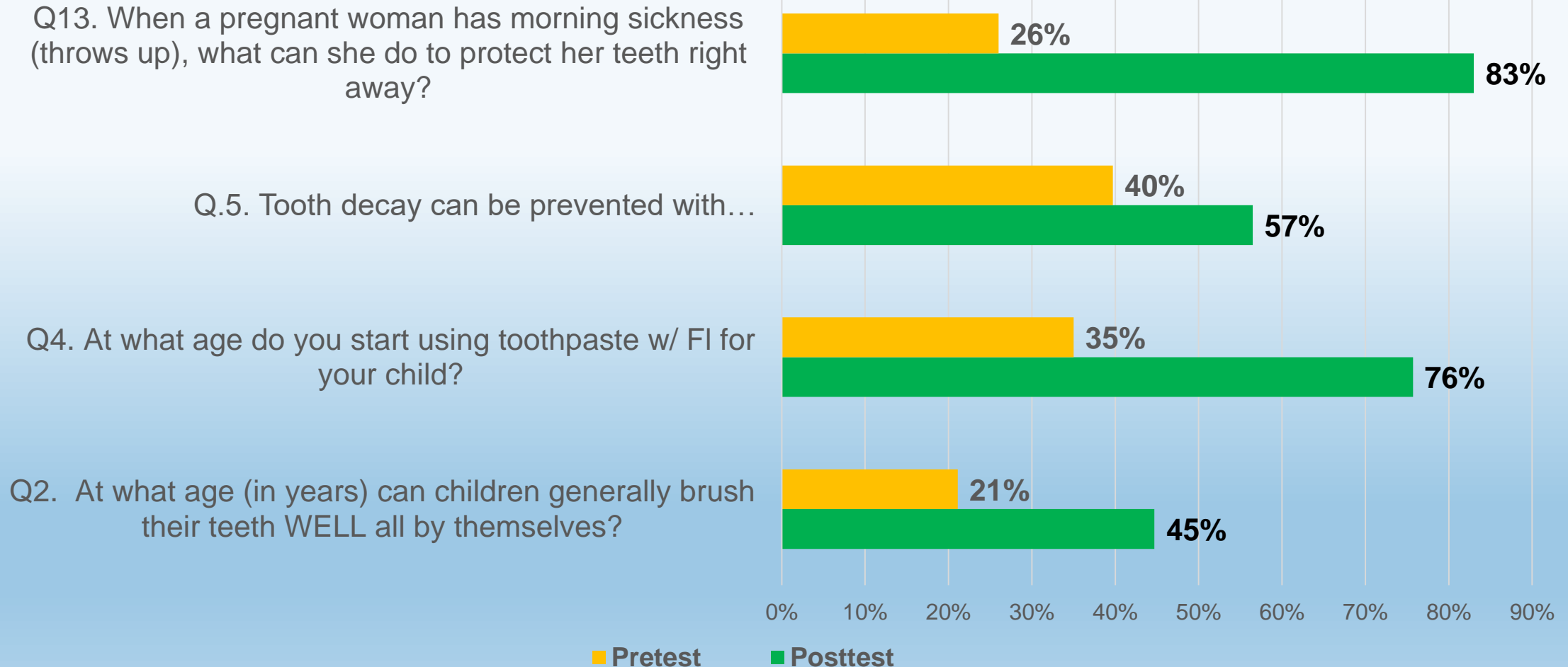


# Community presentations:



# Key Knowledge Findings Community Attendees (2018) project (N=129):

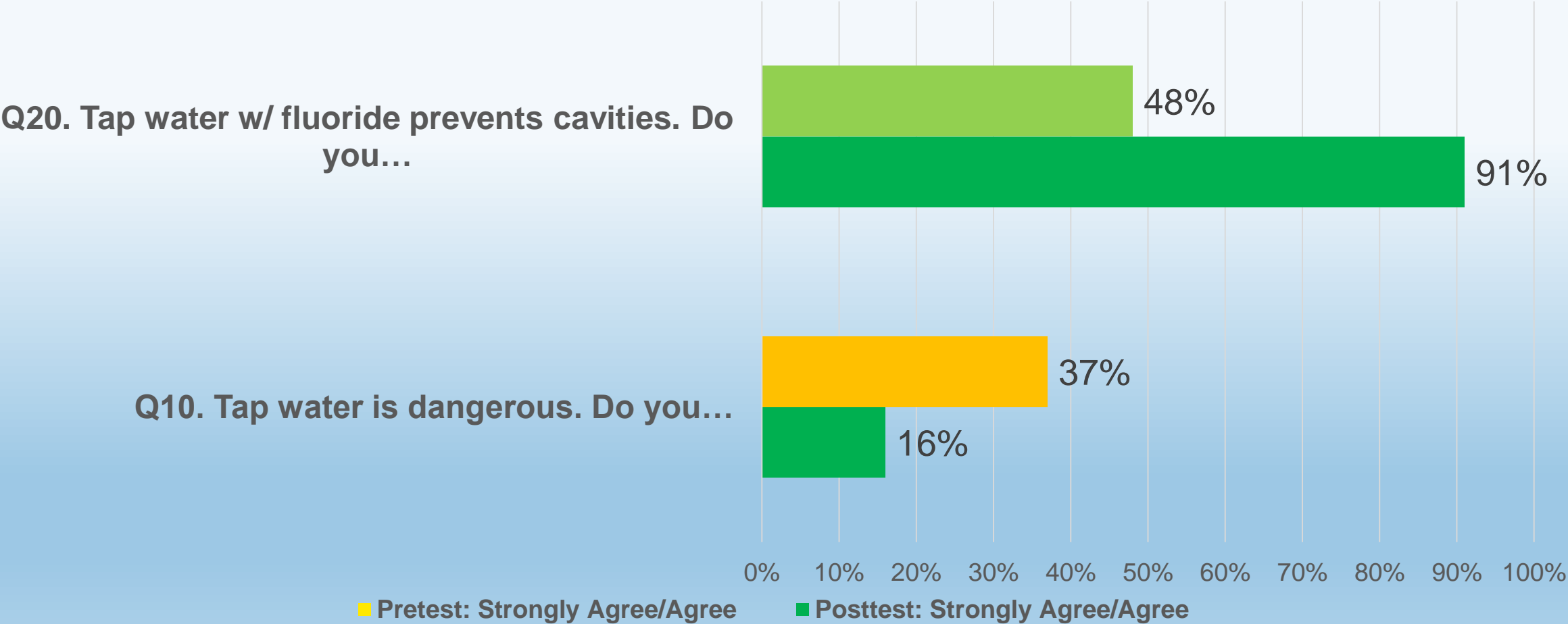
Community Attendees Pre/Posttest (N=129)  $p < 0.05$





# Key Attitude Findings Community Attendees (2018) project (N=129):

Community Attendees (N=129) p<0.05



# Conclusions & limitations of the COHWs II (2018) project for Community Attendees (N=129):

1. **Significant gains in knowledge and attitudes** after an one-hour oral health presentation given by trained COHWs.
2. **Practices:** while no post-test, parents report high frequency and consumption of sweet snacks and beverages;
3. **Positive:** 72% of parents report taking their child to the dentist for routine care.
4. Surprisingly large numbers of **parents 74%** report having a dental home.
  - 58% report dental visits for themselves (within last 12 months)
  - **Negative:** 21% have not seen a dentist in over 2 years
5. Reasons for not having a dental home (adult):
  - No insurance (58%)
  - Too expensive (32%)



# Opportunities:

- ✓ **CHW/promotoras** - used effectively in medicine for chronic disease management & screening programs, far longer than dentistry - promising results.
  - Aligns with [California Oral Health plan](#): Obj 3.C: "Increase the # of existing CHW..."
  - **COHWs are valuable resources - particularly for high-risk and vulnerable communities** - Explore and build community clinical linkages: provide counseling, referral & follow-up – even explore employment via hospitals, clinics as well as dental offices.
- ✓ **Investment in the future** - need long-term studies to validate best practice approaches that promote oral health (epidemiological effectiveness data)
- ✓ **Streamlined and consistent training curriculum** (core competencies, evidence-based, & tested)
- ✓ Need defined **scope of practice and oversight** - nationwide
- ✓ **Explore reimbursement for COHWs services** - through State, County oral health funds, DTI pilots, health insurance models of payments, etc.
- ✓ **Enhance COHWs employment opportunities** - with dentists & organizations; determine value added to practices

# Lessons learned

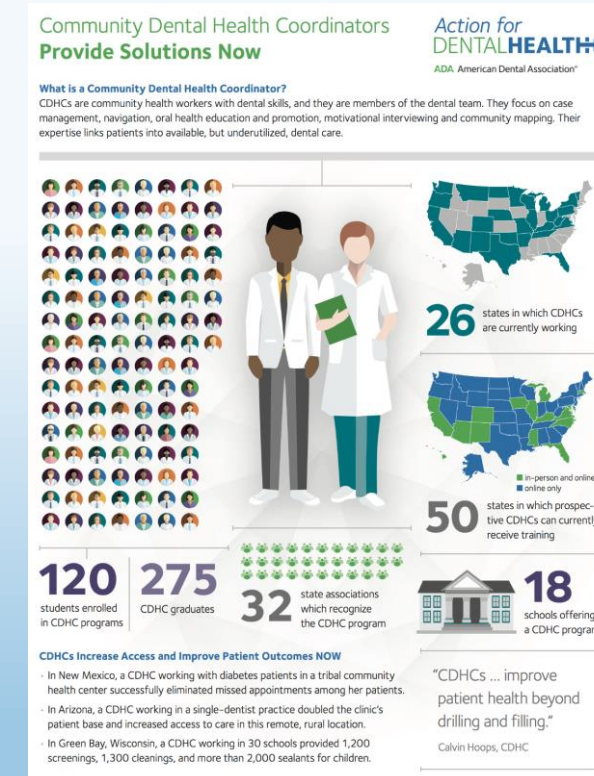
- ❖ **Survey Qs** - few validated instruments/questions.
  - Too many questions (16) + close attention to health literacy
- ❖ **Translations:** attention to colloquial/regional Spanish (translate and back translate)
- ❖ **COHWs benefits:** improved communication and public speaking skills; enjoyed the team camaraderie and learning so much about children's oral health; eager to share with their communities - **and** communities benefit.



# Lessons learned

## ❖ Next steps: *They are trained: Now what?*

- Link with existing health centers; facilitate connections for them
- Expand to other Head Starts, Home visiting programs, preschools and schools, FQHC, private dentist practices, PTA, etc.
- **Policy:**
  - 26 States in which Community Dental Health Coordinators (CDHCs) work
  - 50 States in which prospective CDHCs can currently receive training
  - 18 schools offer a CDHC program
- ***...More can be done to improve utilization of such an underutilized resource - especially for high risk communities where disparities continue!***



For more information & link to the new curriculum (available Feb 2019):

<http://www.uccoh.org/research.html>

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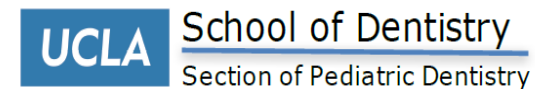
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