Reducing Oral Health Disparities in the 2nd Largest School District in the Nation

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STUDENT HEALTH = STUDENT SUCCESS

CA School Based Health Alliance Conference:

Advocating for Equity in Education & Health Care

Friday May 6, 2016

The L.A. Trust Oral Health Initiative

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BY 3RD GRADE, TOOTH DECAY AFFECTS 71% OF STUDENTS IN CALIFORNIA

- Tooth decay is the **single most common chronic childhood disease—**

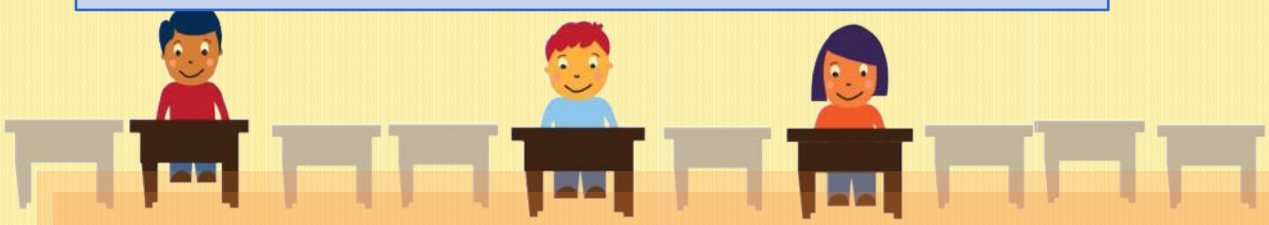
  - **5x asthma**
  - **4x early- childhood obesity**
  - **20x diabetes**

- Children **cannot eat, speak, and sleep** normally when they are in pain from untreated dental disease.

As a result, a child's ability to concentrate and do well in school suffers.

1 in 3 school absences is dental related

For LAUSD students that averages to 2.2 missed days of school each year



650,000 students
x 2.2 days
1,430,000 missed days due to dental illness each year
OVER $78 million lost to the district

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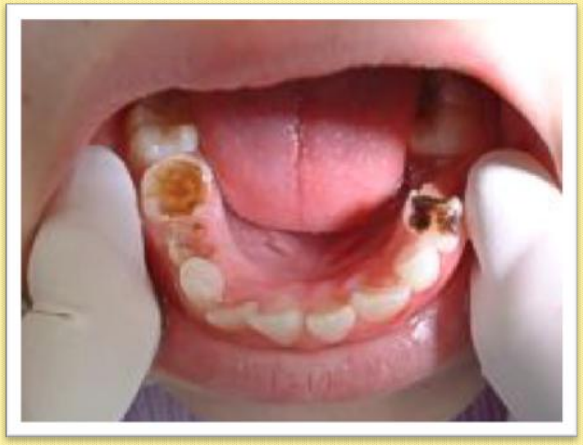

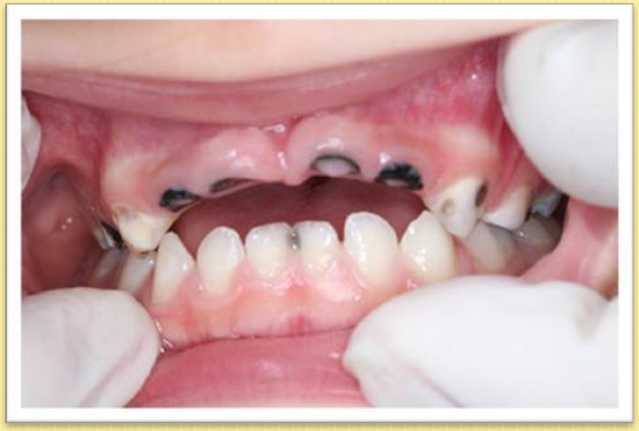

THE BASICS

- To alleviate the burden of disease, children must see a dentist every 6 months for routine cleaning and treatment of decay.
- Untreated decay leads to infection, tooth loss, and an éérisk for diabetes, heart disease, and poor birth outcomes.
- Although tooth decay is entirely preventable, access to preventive disease care is problematic for low-income families.

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DENTAL HEALTH SURVEYS & INSURANCE DATA SHOW:

- There are remarkable disparities in dental disease by income.
- Poor children suffer 2 X as much dental caries as their more affluent peers, and their disease is more likely to be untreated.
- The U.S. GAO found that poor children had 5 X more untreated dental caries than children in higher-income families, and poor adults were much more likely to have lost 6 or more teeth to decay and gum disease than higher-income adults.
- Poor children spend nearly 12 X as many days suffering with limited ability to study, play, and interact socially, than children from higher-income families.

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ORAL HEALTH & SOCIAL INJUSTICE

- Tooth decay disproportionately affects racial/ethnic minority populations such as Latinos and African Americans
- Black and Latino children with Medicaid have dental visits at longer intervals when compared to White and Asian counterparts
- Although public insurance plans such as Medicaid and Children's Health Insurance Program (CHIP) offer dental insurance to vulnerable populations, coverage does not always = care.
- The Pew Charitable Trust reported that 58.6% of Medi-Cal enrolled children did not visit the dentist (2011).

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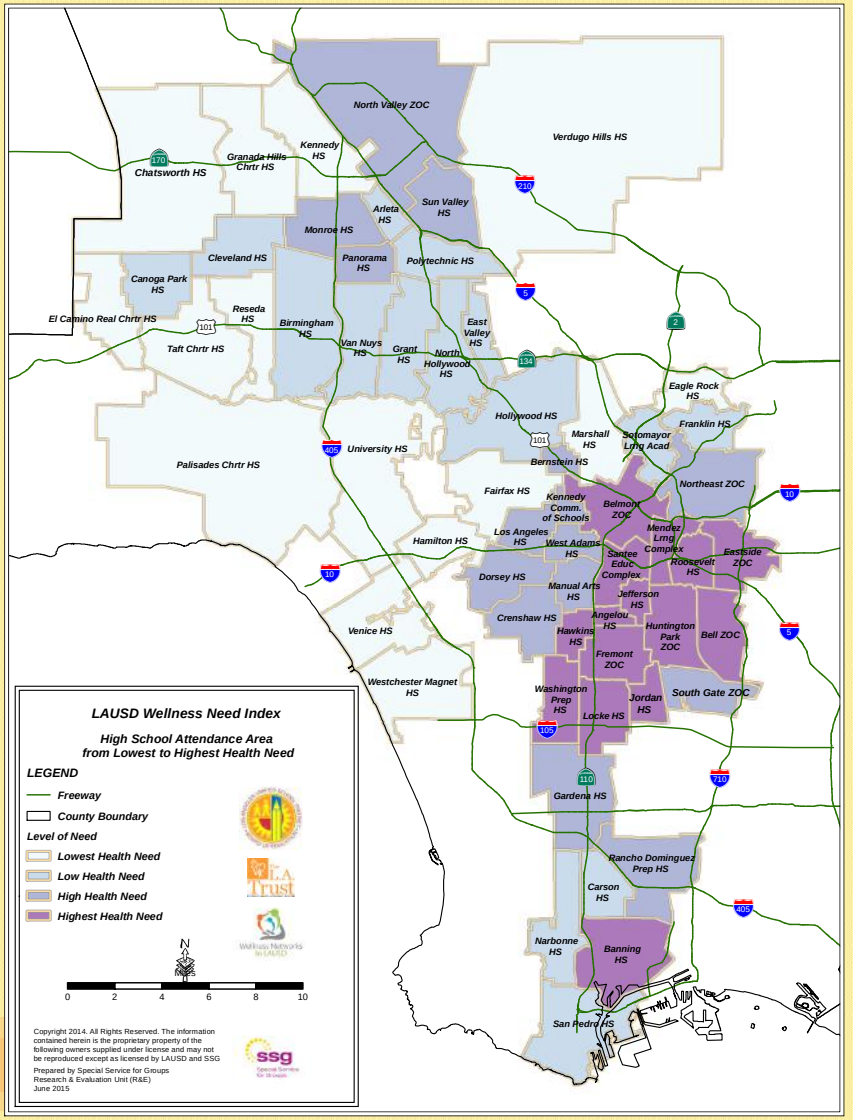
In Los Angeles County, Access To Oral Health Services Is Poor:

- Nearly 10% children under age 17 and 20% of children under age 5 have never been to a dentist.
- A 2012 study of oral health needs in LAUSD found that students with no access to dental care are 3 X more likely to miss school because of dental problems than students with access to care.
- In addition, students with toothaches are almost 4 X more likely to have a low grade point average.



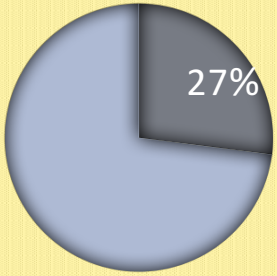
STUDENT POPULATION OF LAUSD:

Total K-12 Enrollment: 643,493

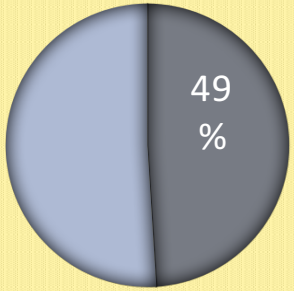
Latino	**74.0%**
African American	8.4%
White	9.8%
Asian	6.0%
Pacific Islander	0.4%
American Indian/Alaskan Native	0.2%

With nearly 80% of students at an economic disadvantage, LAUSD is the largest provider of free and reduced lunches.

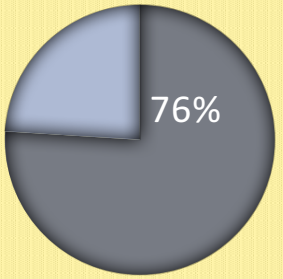
Uninsured



Medi-Cal



Free/Reduced lunch



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The Cost of Restorative Care IS Extremely Expensive!!!!

Common Preventive Services	Common Restorative Services
Fluoride application: $31.70	Extraction: $147.32
Periodic examination: $44.10	Composite filling: $197.09
Cleaning: $61.14	Root canal: $918.88
Sealant, per tooth: $44.12	Porcelain crown: $1,026.30

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THE L.A.TRUST ORAL HEALTH INITIATIVE GOALS

- Reduce dental caries in LAUSD students by 25% over 5 years
- Integrate oral health care into LAUSD's health services programs
- Pilot a test program model to promote oral health for students and families

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THE L.A.TRUST & LAUSD ORAL HEALTH INITIATIVE

- Developed as a comprehensive public health approach to meet the oral health needs of more than 650,000 students in Los Angeles Unified School District (LAUSD)
- Designed a standardized oral health education, prevention and early intervention program across LAUSD beginning in 2012
- Built on best practices from the model of Anderson Center for Dental Care at Rady Children's Hospital of San Diego Center for Healthier Communities, as well as our own outcomes and experience

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The L.A. Trust Oral Health Initiative

3 Strategic Public Health Tiers

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KEY PARTNERS

- DentaQuest Foundation
- LAUSD Nursing (LAUSD-DNS)
- UCLA Department of Pediatrics
- Oral HealthAmerica
- Dignity Health

- Eisner Pediatric and Family Medical Center
- Big Smiles
- Center for Oral Health
- South Central Family Health Center
- SmileWide Clinic
- Queenscare
- Cedars-Sinai
- USC CHAMP
- Hart Health Clinic
- Watts Healthcare Corp
- St. John's Well Child & Family Center

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STEPS TAKEN

- Established an Oral Health Advisory Board
- Partnered with and trained LAUSD District Nursing Services and community partners
- Worked with parents, school staff and community providers to identify:
  - Oral health care barriers
  - Successful strategies for community engagement
  - Program elements necessary to achieve school and student participation
- Researched existing school-based models for oral health care
- Revised LAUSD's Wellness Policy to emphasize oral health

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LAUSD PARENT REPORTED REASONS FOR LACK OF ACCESS TO ORAL HEALTH:

- Affordability (40%)
- The dentist did not accept their insurance (15%)
- Not a serious problem (11%)
- Not knowing where to go (10%)
- Too hard to get an appointment (6%)
- Not being able to skip work (5%)

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COMPREHENSIVE NEEDS ASSESSMENT…

MOST CRITICAL NEEDS:

- Free, school-based, preventive dental services
- Information for students and parents
- Education and training for staff and community members
- Oral health care coordination

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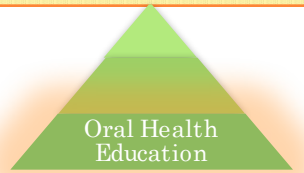
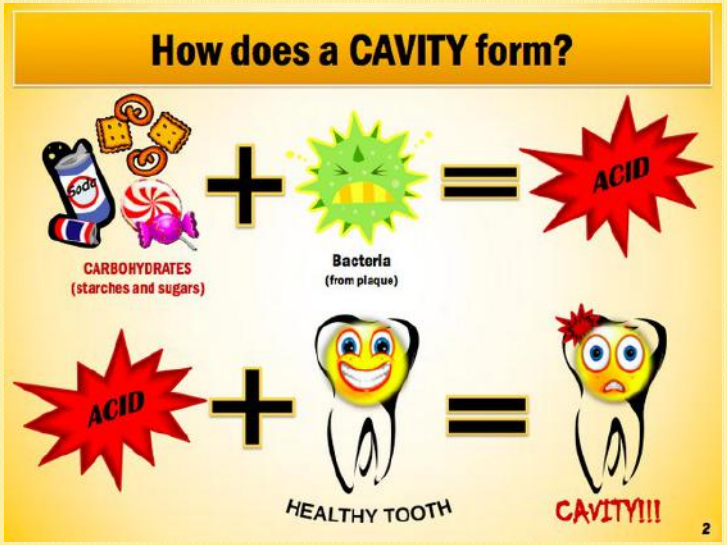
COMMUNITY WIDE ORAL HEALTH EDUCATION



- Tailored oral health education for parents, students, teachers, and school administrators. Education should emphasize in a clear and direct manner:
  - Causes, processes and effects of oral diseases
  - Diet and nutrition and their relation to oral health
  - Need for regular dental care
  - Use of preventive dental agents
  - Oral injury prevention
  - Drinking fluoridated water
  - Links to cancer, diabetes, mental health and finances



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October 11, 2015
TheL.A.Trust
Tooth Fairy
Convention
ORAL HEALTH INITIATIVE
SM

Universal Screening and Fluoride Varnish Program

- Public health and school-based approach
- Introduced to school staff, parents and students through presentations by District Oral Health Nurses at:
  - professional development meetings
  - parent groups,
  - student assemblies

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Responsibilities of the Provider

Pre-Planning

- Meet with LAUSD Organizational Facilitator (OF) to secure Memorandum of Understanding (MOU) with District
- Establish Service Delivery Agreement (SDA) with Principal at school site and return it to OF
- Prepare copies of parent letter and consent forms (English & Spanish)
- Assign One Scribe per Dentist for event day
- Assign a fluoride varnish application assistant
- Arrange for donation of goody bags including toothbrushes (and toothpaste, floss, dental mirrors, timers, stickers if available)

Day of Event

- Conduct screening and fluoride varnish on the day of the event, specify levels 1-4 for treatment urgency and diagnose other problems.
- Ensure signature on each Dental Screening Report

After the Event

- Gather cost statistics for:
  - Personnel utilized
  - Equipment and materials
- Provide financial information to UCLA team for program evaluation.
- Follow-up with patients for treatment

Items Needed:

- Gloves, mask
- Fluoride varnish
- Screening mirrors
- Gauze (4x4)
- Clean area towels
- Hand sanitizer
- Screening light
- Tongue Blade
- Gift baggies including toothbrushes

Little mirror

Active Parental Consent For All Services

- The consent form includes items regarding:
  - Student demographics
  - Access to and utilization of dental care
  - Oral health behaviors

Does your child have a dentist? ☐ Yes ☐ No

Has your child been to the dentist in the last 6 months? ☐ Yes ☐ No

In the last 7 days, how many days did your child drink the following beverages?

Tap water (drinking or cooking)	☐ 0 days	☐ 1-2 days	☐ 3-5 days	☐ 6-7 days
Bottled water	☐ 0 days	☐ 1-2 days	☐ 3-5 days	☐ 6-7 days
Juice	☐ 0 days	☐ 1-2 days	☐ 3-5 days	☐ 6-7 days
Soda	☐ 0 days	☐ 1-2 days	☐ 3-5 days	☐ 6-7 days
Sports or energy drinks	☐ 0 days	☐ 1-2 days	☐ 3-5 days	☐ 6-7 days

How often does your child brush his/her teeth?

☐ Less than once /day ☐ Once/day ☐ Twice/day ☐ More than twice/day ☐ Unsure

What health insurance does your child have?

☐ Medi-Cal ☐ Healthy Way LA ☐ Private ☐ None ☐ Not sure

EVENT DAY ON CAMPUS

- Students return signed consent form
- Parent volunteers dressed in Oral Health costumes escort students from class
- Oral health education & dry brush demo
- Dentist completes screening exam and applies fluoride varnish
- Students take home age appropriate educational materials including:
  - free toothbrush
  - toothpaste
  - dental floss

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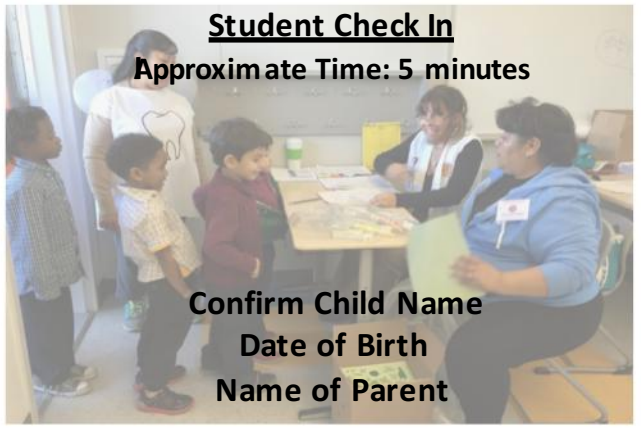
Parent Volunteers

Escort Students To and From Class
Give Each Child Oral Health Goody Bag
Total Time Out of Class: 20 minutes

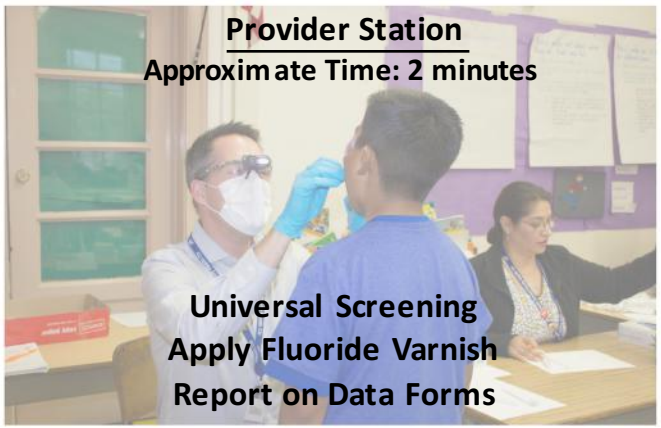


Student Check In
Approximate Time: 5 minutes

Confirm Child Name
Date of Birth
Name of Parent

Oral Health Education
Approximate Time: 7 minutes

Brushing & Flossing Methods
Eat Healthy Foods
Drink Fluoridated Tap Water



Provider Station
Approximate Time: 2 minutes

Universal Screening
Apply Fluoride Varnish
Report on Data Forms

Wait Time

6 minutes

STUDENTS ARE SCREENED & ASSIGNED TREATMENT URGENCY STATUS:

1. "**No Visible Dental Problems**" = child's teeth appear visually healthy and there is no reason that you feel he/she needs to see a dentist before the next routine checkup

2. "**Early Evidence of Dental Caries**" early, reversible, signs of tooth decay (white spots and brown spots or molars that would appear to benefit from sealants)

3. "**Evidence of Dental Problems**" = small and large cavitated lesions or other acute problems needing therapeutic dental care

4. "**Needs Urgent Dental Care**" = signs or symptoms that include pain, infection, swelling or soft tissue lesions lasting longer than 2 weeks (level 4 urgency should receive care within the week)

Guidelines developed by the Association of State and Territorial Dental Directors in association with the California Dental Association (Adopted from Rady Children's Manual)

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ACCESS TO RESTORATIVE CARE

- All students referred to a dental home
- Annually updated list of appropriate dental providers
  - Student Vetting
- Establishing 24 oral health “hubs” throughout LAUSD
- Expanding number of on-site dental restorative services
  - Mobile chairs
  - Mobile vans
  - Wellness Centers
- Dental resources on The L.A.Trust website

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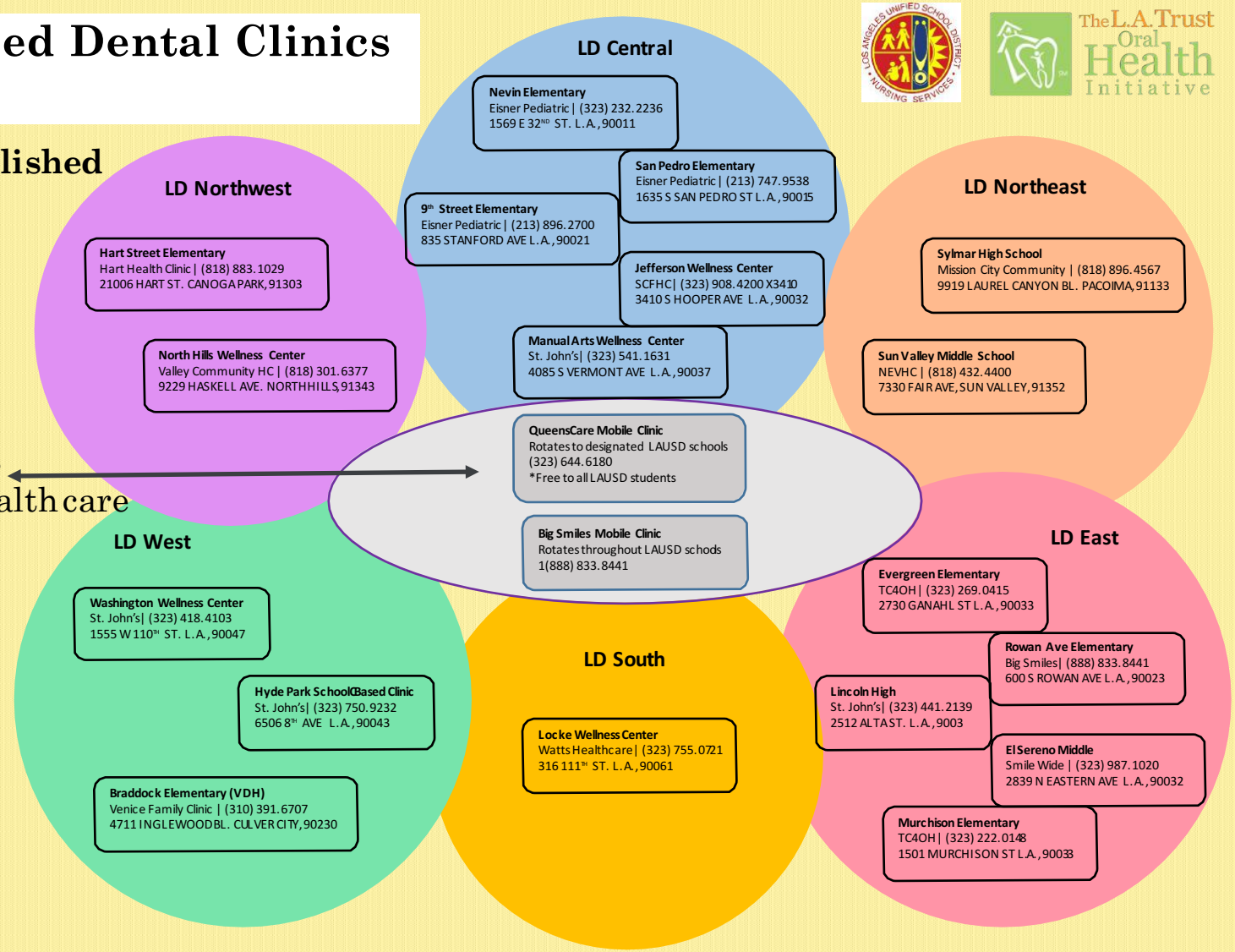
School–based Dental Clinics
Inside LAUSD

18 "hubs" established

240+ mobile sites providing oral health care



STUDENT CALL BANKING

Friday March 25, 2016

- 7 LAUSD students from The L.A. Trust Youth Advisory Board conducted phone banking surveys
  - **272 calls made**
  - **60 surveys collected**

Lesson learned:

- Don't attempt calls to a dental office on Good Friday

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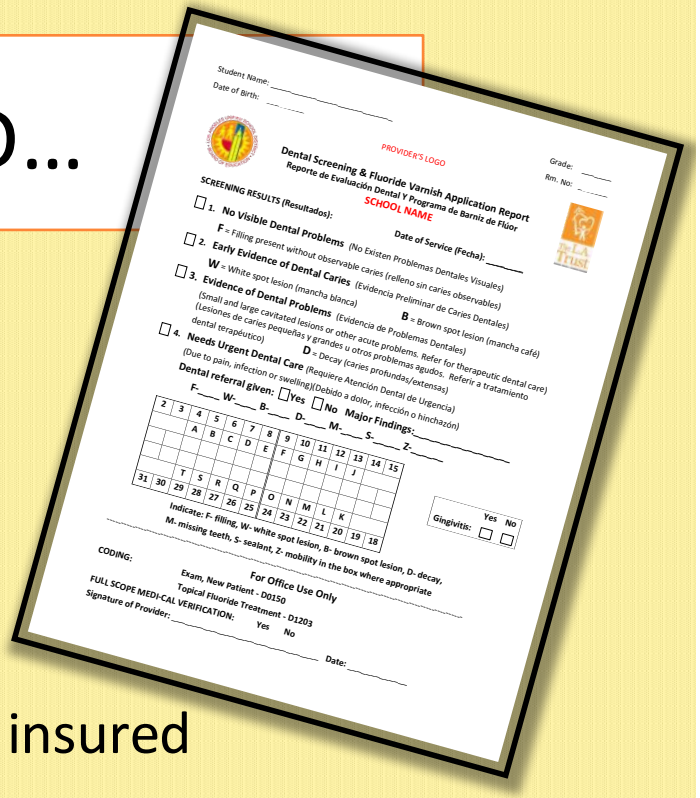
AFTER EACH CHILD IS SCREENED…


Student Name: _____
Date of Birth: ___ ___

PROVIDER'S LOGO

Grade: _____
Rm. No: _____

Dental Screening & Fluoride Varnish Application Report
Reporte de Evaluación Dental Y Programa de Barniz de Fluor
SCHOOL NAME

Date of Service (Fecha): _____

SCREENING RESULTS (Resultados):

☐ 1. **No Visible Dental Problems** (No Existen Problemas Dentales Visuales)

☐ 2. **Early Evidence of Dental Caries** (Evidencia Preliminar de Caries Dentales)
F = Filling present without observable caries (relleno sin caries observables)
W = White spot lesion (mancha blanca)

☐ 3. **Evidence of Dental Problems** (Evidencia de Problemas Dentales)
B = Brown spot lesion (mancha café)
(Small and large cavitated lesions or other acute problems. Refer for therapeutic dental care)
(Lesiones de caries pequeñas y grandes u otros problemas agudos. Referir a tratamiento dental terapéutico)
D = Decay (caries profundas/extensas)

☐ 4. **Needs Urgent Dental Care** (Requiere Atención Dental de Urgencia)
(Due to pain, infection or swelling)(Debido a dolor, infección o hinchazón)

Dental referral given: ☐Yes ☐No **Major Findings:**
F-____ W-____ B-____ D-____ M-____ S-____ Z-____

2	3	4	5	6	7	8	9	10	11	12	13	14	15	
		A	B	C	D	E	F	G	H	I	J			
		T	S	R	Q	P	O	N	M	L	K			
31	30	29	28	27	26	25	24	23	22	21	20	19	18	

Gingivitis: Yes ☐ No ☐

Indicate: F- filling, W- white spot lesion, B- brown spot lesion, D- decay, M- missing teeth, S- sealant, Z- mobility in the box where appropriate

CODING:
For Office Use Only
Exam, New Patient - D0150
Topical Fluoride Treatment - D1203
FULL SCOPE MEDI-CAL VERIFICATION: Yes No
Signature of Provider: _____ Date: _____

- Each child receives:
  - Report on oral health status
  - Recommended follow-up care
  - List of local low-cost dental providers
- Reimbursement for care provided to publically insured children may be submitted by the provider
- All care is delivered at no cost to participating families.

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PROGRAM EVALUATION

- Items tracked in program database:
  - Program costs
  - Reimbursement data
  - Baseline & follow-up screening exam results
  - Student demographics
  - Oral health behaviors

- We estimate the potential **$$** savings for both the dental provider and school system

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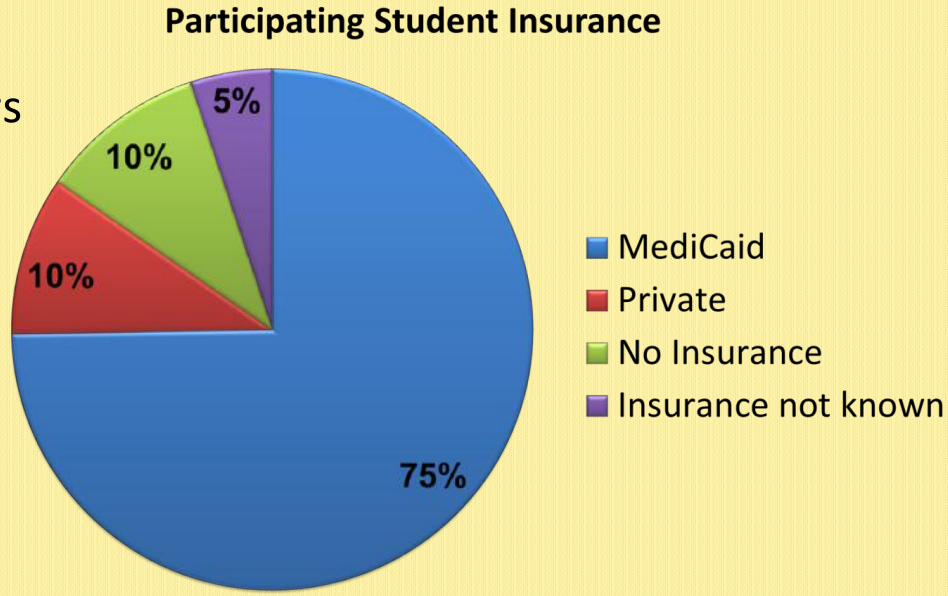
PARTICIPANTS

APRIL 2013- DECEMBER 2015

- 5,386 students across 11 schools
  - 13% Early Education or Primary Care Centers
  - 78% Elementary School
  - 9% Middle or High School
- 953 students participated multiple times
- 94% Latino
- Age ranges from 21 months to 18 years old



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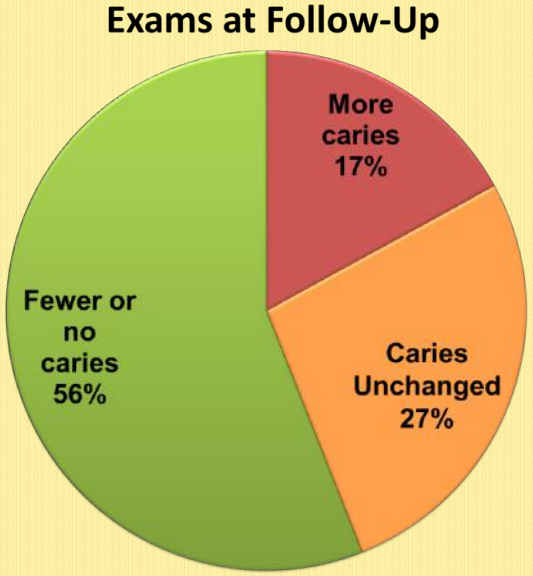
Oral Health Report Card 2013 – 2016

	Overall	Early Ed Centers	Elem. Schools	Middle/ High Schools
Number of screenings	6,340	789	5,124	427
Number of schools served	22	8	11	3
Brush teeth less than twice/ day	34%	40%	33%	24%
No dental visit in last 6 months	41%	39%	40%	55%
Drank fluoridated water, last 7 days	36%	36%	36%	37%
Drank soda, last 7 days	49%	45%	48%	72%
Drank sugar-sweetened beverage, last 7 days	89%	92%	88%	97%
Abnormal exam	84%	84%	84%	93%
Caries experience	74%	62%	75%	87%
Reversible dental disease	51%	72%	47%	55%
Visible decay	38%	41%	34%	71%
Number of caries: mean (range)	1.2 (0-20)	1.2 (0-20)	0.9 (0-20)	3.9 (0-19)

IMPROVING ORAL HEALTH

- 2774 students participated across 6 elementary schools
- 22.7% (631) students participated both years the program was offered
- No changes in reported oral health behaviors

Baseline and Follow-up Findings Among Repeat Participants			
Oral Health Outcomes	Baseline	Follow-Up	p-value
No Active Disease	36.0%	47.6%	<.001
Early reversible disease	33.3%	29.9%	0.18
Mean white/brown sports	1.7	1.3	0.001
Visible Decay	27.0%	19.8%	0.003
Mean Number of Caries	0.8	0.6	0.002
Mean Number of Caries among those with initial decay	2.6	1.2	<.001
Emergent Dental Needs	3.4%	2.7%	0.33



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PROGRAM EVALUATION

- Program costs and reimbursement data is collected from the school district and dental provider.
- Although the percent of students reporting Medicaid coverage ranged from 66%-77%, the percent of students for whom Medicaid actually reimbursed averaged 29% (range13%-49%).
- The cost of un-reimbursed care, ranged from $0-$3,944 per school.

Average Program Costs			
	Total	**Avg. school event cost**	**Avg. student cost**
Screening day expenses			
Personnel	$25,892	$1,726	$9
Supplies	$6,629	$442	$2
Year Round Expenses			
District Oral Health Nurse Salary	$81,143	$13,524	$59
Total Costs	**$113,664**	**$15,692**	**$70**
Reimbursement	**$86,931**	**$5,795**	**$25**

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COST-BENEFIT ANALYSIS

- We estimate that fluoride varnish in this population could prevent 0.74 caries per child.
- The cost of filling these caries amounts to $369.60 per child.
- Preventing these caries could save 1.6 school days per child per year which amounts to $79.43 per child in ADA funding to the district.

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BARRIERS ENCOUNTERED

- Low percentage of returning consents at some schools
- Provider delays processing the students
- Miscommunication when goals are not in synchrony
- Referral follow up: Lack of personnel
- Lack of education about importance of preventive dental care
- Availability of equipment and/or supplies i.e. copy machine

FUTURE PLANS

- Identify funding/business models for health education and screening at schools
- Expand dental hubs where every child can be seen: 4 per Local District or 24 total
- Improve the system of dental referral and follow up tracking
- Develop a "Learning Zone" training for school staff on oral health
- Standardize data collection and metrics, link data to student attendance and performance records
- Second Annual Tooth Fairy Convention
  - Upcoming February 2017

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New Understandings

- A public health approach to school based care can improve the oral health of children with a high burden of untreated dental diseases.
- Schools value addressing oral health as a means to support students' wellbeing and ability to learn
- Advocates see the school as an important, culturally appropriate access point for services that can help shift norms regarding preventative health behaviors.
- Dissemination of the program throughout the district depends on funding for un-reimbursed care and developing capacity among additional oral health providers.
- School Wellness policy and (DOE) Kindergarten Mandate support oral health screening programs

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THANK YOU

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