A Collaborative School-linked Primary Prevention Initiative – Project Saving Smiles

Houston Department of Health and Human Services
Bureau of Oral Health

Johanna K. DeYoung, BSN, DDS, MPH
Oral Health

"You can't have good health without good oral health."

Former Surgeon General C. Everett Koop
1916 - 2013
Objectives

What is PSS?

How did it develop?

How has it evolved?

Is it effective?
PSS

- A community/population-based dental public health approach
- Preventing caries by primary preventive
  Oral Health Education
  Sealants
  Fluoride varnish
PSS Goals

- **Goal 1**: Reduce dental cavities/decay in low income children

- **Goal 2**: Decrease school absences by decreasing oral pathology
PSS Targeted Population

- PSS targets schools with $\geq 70\%$ Free and Reduced Lunch
- PSS provides services for 2$^{nd}$ graders who have parental consent
Why do PSS?

- It’s the right thing to do!
- Prevention trumps treatment! - Known from safety net experience
- Application of sealants - one of two strongly evidenced-based dental public health preventive strategies
- 67% increased efficiency in delivery of sealants using PSS model vs school to school model
The Problem
The Burden of Dental Caries

Who bears the burden of caries?
- most vulnerable - the old and the young

- children living in poverty have twice the rate of caries as their better-off counterparts, and their caries are left untreated

- children living in poverty suffer from more severe decay than their counterparts

*Oral Health in America – A Report of the Surgeon General*
Dental Caries / Tooth Decay

- Preventable
- Most prevalent chronic disease afflicting children in U.S.
- Four times more common than asthma
Barriers to Oral Health

Socioeconomic – low socioeconomic status alone puts children at high risk for dental caries

Lack insurance

1. U.S. in 2012: ≈ 48 million lacked med insurance – double that and more lacked dental insurance
2. Uninsured children 2.5 times less likely to receive dental care than insured children
3. In Houston ≈ 28% lack health insurance

Lack transportation
Barriers to Oral Health
continued

Socio-behavioral and environmental factors

- unhealthy lifestyles
  - diet
  - nutrition
  - oral hygiene
  - tobacco and alcohol
  - limited access to care
Background: Harris County

- In 2001, 250,000 uninsured children
- 2001 Dental Needs Assessment revealed untreated decay in
  - 52.4% of pre-k
  - 45.9% of 2nd graders
  - 31.2% of 7th graders
  - 27.0% of 10th graders
Findings: 2001 Needs Assessment

- Fragmented public health dental service delivery
- Dearth of public health dental providers
- High caries prevalence among 25% of underserved children
Updated Needs Assessment

- Coming to Houston soon!
- Thesis project for UTSPH student
- Source of data collection, e.g., schools, health fairs, teen clinics, etc.
Consequences of Oral Diseases

- **Personal**
  - Pain
  - Dysfunction
  - Ability to learn, potential/actualization
  - Self esteem

- **Family**
  - Loss in wages/time
  - Loss of sleep
  - Dental expense

- **Society**
  - Loss of human potential
PSS History

• Began in School Year (SY) 2008-09
• Based on an optometric model – “See to Succeed”
• School-linked
• Targeted population bussed into central area of community where services are provided
• Efficient model - provide care in one week that previously took one year
PSS History - continued

• Conduct week-long missions – 3-8/year
• Work with ISD superindendentents – prior work with ISD nurse leads/principals
• Work within FQHC/community health centers – evolving to onsite ISD, e.g., athletic view box, auction arena, professional development facility
• Utilize sealant certified RDAs
Calibrated screeners
Dental needs identified by Urgency 0, 1, 2
Oral Health Education – Pre/Post Tests
Link children to dental homes – with the help of the schools
Evaluation – within one year of mission, sealant and Post Test follow up with randomized 10-20%; check for retention of sealant and presence of caries
PSS Logistics - continued

- Organization/Delegation of Responsibility – Incident Command Structure (ICS)
  a. Structure under the National Incident Management System (NIMS)
  b. Four components: Planning, Operations, Finance, Logistics
  c. Trains staff/partners with emergency operating structure while working on a planned event
PSS Evaluation

- Within one year of sealant placement, sealant and Post Test follow up with randomized 10-20%; check for retention of sealant and caries

- 3 caries found to date

- Data analysis provided through UTSPH interns
Cumulative Results
PSS Missions School Years 2008-13
601 Schools/9 School Districts

- # Children Screened: 25,015
- # Teeth Sealed: 77,706
- # Fluoride Varnishes: 24,779
- Average Number of Staff/Volunteers/Day: 67
- Dollar value of Services Provided: $3,331,885
- Average Value of Services/Child: $133.69
PSS Participation Inception thru SY 13-14
PSS Participation

- SY 2008-08: 1,955
- SY 2009 -10: 2,816
- SY 2010 -11: 3,458
- SY 2011 -12: 4,063
- SY 2012 – 13: 5,645
- SY 2013 – 14: 7,082
PSS Participation Growth

- SY 2009 -10: 30.6%
- SY 2010 -11: 18.4%
- SY 2011 -12: 14.89%
- SY 2012 – 13: 28.0%
- SY 2013 – 14: 20.3%
PSS School Participation: Inception thru SY13-14
Factors - PSS Participation Growth

- Working with Superintendents
- ISDs scheduling schools
- Working from 12 – 17 chair set ups
- Partners!!!!
Insurance Status of PSS Participants – SY2013-14
Ethnicity of PSS Participants
SY2013-14

- Latinos: 5,000
- Black: 1,250
- Asian: 500
- White: 375
- Other: 250
- "N/A": 34
- Pacific Islander: 0
PSS Budget

- Unfunded since its inception
- In-kind services from partners
- Support from Houston Health Foundation, Inc.
- Small grants
- 1115 Waiver – funding from CMS
- Exploring means for Medicaid and CHIP reimbursement
Halo Effects of PSS

- Increases awareness of oral health and prevention
  - Teachers
  - Principals
  - School nurses
  - Families of students
  - Neighbors
  - PSS volunteers and staff – “Oral Health Moment”
PSS Partners

- Good Neighbor Healthcare Center
- Women of Rotary
- Texas Department of State Health Services
- Texas Oral Health Coalition-Houston Region
- Houston Schools
- United Concordia Dental
- Greater Houston Dental Society
- Memorial Hermann Health Centers for Schools
- Harris County Public Health & Environmental Services
- Houston Wellness Association
- Academic Partners, i.e., UT Dental, UT School of Public Health, Prairie View A&M, TSU, UH, UTSA-Dental, Univ. of St. Thomas
- Private Practice Partners, i.e., dentists, dental hygienists, and dental assistants
Project Saving Smiles (PSS)

Questions???