



# School-Based Dental Sealant Programs in the United States, 2012

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# Expert Advice for SBSP Design Elements

- Massachusetts Dept. of Public Health (1986)
- Workshop on Guidelines for Sealant Use (1994)
- Community Preventive Services Task Force (2001)
- ASTDD Best Practice Approach (2003)
- CDC Expert Work Group on School-Based Sealant Programs (2004→2009 publication)
- Seal America, The Prevention Invention (updated 2011)

# Community Preventive Services Task Force (CPSTF), 2001

- For its systematic review of evidence of community level approaches to preventing dental disease, the CPSTF defined school sealant programs as...
  - ... providing pit and fissure sealants directly to children unlikely to receive them otherwise, either at school (school-based) or screening and enrolling children in sealant programs through schools and providing the sealants at another location (school-linked).

# Evidence for SBSP Effectiveness: CPSTF (2001)

- Conclusion of evidence review:
  - “...strong evidence shows that school-based and school-linked sealant delivery programs are effective in reducing decay in pits and fissures of children’s teeth.”
- Recommendation:
  - “...strongly recommended.”

# Evidence of Effectiveness for Clinical Preventive Services

- Cochrane Reviews:
  - Sealants = Evidence of Effectiveness
  - Oral Prophylaxis = No Evidence of Effectiveness
  - Fluoride Varnish = Evidence of Effectiveness from Multiple Applications
    - Studies in which sealants also were placed were excluded from review

# School-Based Sealant Program (SBSP) vs. School-Based Prevention Program (SBPP)

- The Workshop on Guidelines for Sealant Use, CSTF, ASTDD and CDC focused on the provision of dental sealants by SBSPs
  - ASTDD Best Practices Committee noted that school preventive oral health programs often incorporate other elements beyond sealant application (e.g., education, screenings, referral for dental treatment, topical fluoride application)...
    - ...but did not address those elements further
    - CDHP Report uses the term “*School-Based (Dental Caries) Prevention Programs*” (SBPP) for those that provide procedures in addition to sealants

# Why Another SBSP Report?

## Pew Report Focus

- Policies that affect access to sealants for low-income children
  - SBSPs are only one of four measures
  - SBSPs could impact other measures
  - Other measures could impact SBSPs
  - Extent to which those impacts exist is not known

## CDHP Report Purpose

- Describe SBSPs
- Identify facilitators and obstacles to SBSP/SBPPs
  - including Medicaid financing issues
- Identify attributes of successful programs,
  - SOHPs and partners
  - Local programs
- Recommend how to improve SBSP/SBPPs, in general

# “School-based Sealant Programs”

(for the purpose of CDHP study)

- Programs that seemed like they might be similar to the ones that CPSTF used in its systematic review.
  - **Primary intention** of the program was to place sealants on the permanent molars of high-risk children through school programs, even if they provided additional services.
  - Any **restorative care** that children receive in these programs would be **incidental** to the primary focus of preventive services.

# Methods

- Based on ASTDD State Synopsis data, 13 SOHPs were selected for detailed written review
  - 12 agreed and completed written review, including Florida
  - 7 had follow-up 90-minute telephone interviews
  - 5 were described, in-depth, in the final report
- Review (2-page) of remaining 38 SOHPs + D.C.
- Local SBSP/SBPP review (2-page)
  - Thirty-six well-regarded local SBSPs were reviewed, selected largely on the recommendation of their SOHP. Response rate = 75% (27 programs).

# Respondents to Local SBSP Survey

## Local Health Departments (12)

- Allegheny Co. Health Dept., Pittsburgh, PA
- Black Hawk Co. Health Dept., Waterloo, IA
- Chicago Department of Public Health/  
Chicago Public Schools, Chicago, IL
  - (Local Health Department/Public School System partnership),
- CincySmiles Foundation/Cincinnati Health Dept., Cincinnati, OH
  - (Local Health Department/Private, Not-for-Profit Agency partnership)
- DuPage Co. Health Dept., Wheaton, IL
- **Lake Co. Health Dept., Fruitland Park, FL**
- Lucas County Health District, Toledo, OH
- Multnomah Co. Health Dept., Portland, OR
- Ottawa Co. Health Dept., Holland, MI
- Pima Co. Health Department, Tucson, AZ
- Portland Public Health and Human Services, Portland, ME
- Public Health – Seattle & King County, WA

## University (1)

- Univ. of Nebraska College of Dentistry, Dental Hygiene Dept., Lincoln, NE

## Private, Not-for-Profit Agencies (7)

- Children's Dental Services, Minneapolis, MN
- Delta Dental of Idaho, Boise, ID
- Dental Health Arlington, Arlington, TX
- Future Smiles, Las Vegas, NV
- Greater Derry Children's Dental Network, NH
- Kids In Need of Dentistry-Denver, Denver, CO
- Washington Co. Children's Program of Maine, Machias, ME

## For-Profit (4)

- Dental Safari Company, Carbondale, IL
- Health Promotion Specialists, Lexington, SC
- Miles of Smiles, Ltd., Pekin, IL
- Mira, Inc., Albuquerque, NM

## Hospitals (2)

- Columbia St. Mary's Hospital, Milwaukee, WI
- Bassett Hospital, Cooperstown, NY

## Federal Qualified Health Center (1)

- Community Health Center of Southeast Kansas, Pittsburg, KS

# Findings: General Topics

1. Differences and similarities among SBSPs and the respective roles of SOHP, local agencies, organizations and businesses that operate them.
2. The role of Medicaid policies and fees in sealant program development.
3. Attributes of programs that have managed to provide sealants to a substantial number of children for a sustained period of time.

# Findings

Topic 1: Differences and similarities among SBSPs and the respective roles of SOHP, local agencies, organizations and businesses that operate them.

Take-away: SOHP roles with SBSPs are some combination of funding, other support and direct operation. Sealant program design varies among programs and often from that of the programs studied for the SBSP evidence base. Most programs provide services in addition to dental sealants—making them SBPPs.

# State Thumbnails: Appendix

(SOHP role, Statewide picture, Medicaid, “DDS First”)

## ALABAMA

The SOHP has no significant involvement with the states only two SBSP/SBPPs, which are operated by school districts.

- Medicaid fees are 2nd tier.
- A dentist’s prior exam and on-site presence are required when a hygienist applies a sealant.

## ARIZONA

The SOHP funds 5 of 11 known SBSP/SBPPs (mostly LHDs). SOHP-funded programs are pure SBSPs.

- Medicaid fees are 3rd tier.
- By law, a dentist’s exam is not required prior to a hygienist applying a sealant.
  - However, because all Medicaid managed care plans have used their discretion to not credential the class of providers called Affiliated Practice Dental Hygienists, a dentist’s prior examination is required for Medicaid reimbursement, which is essential to SBSPs.

## DELAWARE

The SOHP provides the state's only SBSP/SBPP with a dental van and a school-linked program. Although the number of children receiving sealants is small, the program reaches 75% of high-risk schools in the state.

- Medicaid fees are top tier.
- A dentist’s exam is always required prior to a hygienist applying a sealant.

## CONNECTICUT

The SOHP has limited interaction with 16 SBSP/SBPPs but knows about them. SOHP created a dental sealant group to facilitate discussion among local programs.

- Medicaid fees are top tier.
  - Despite top tier fees, for-profit programs have not sustained a presence.
- A dentist’s exam is not required prior to a hygienist applying a sealant.

# State Summary “Thumbnail:: FLORIDA

- Although the SOHP provides some funding for start-up equipment, it has little involvement with SBSP/SBPPs. The 23 County Health Departments provide a mix of SBSPs, SBPPs and school-based comprehensive care programs.
- Medicaid fees are bottom tier.
- A dentist’s exam is not required prior to a hygienist applying a sealant.

# How Many SBSP/SBPPs?

## What SOHPs Reported

- 662 SBSP/SBPPs
  - 33% Local/County Health Departments
  - 17% Not-for-profit Agencies
  - 17% Federally Qualified Health Centers (FQHC)
  - 17% For-profit Businesses
  - 6% Colleges/Universities
  - 5% School Districts
  - 4% Hospitals
  - 1% State Oral Health Programs

## Disclaimers

- Moving Target
  - Some come and go with the availability of funding
- Regional variation
- Data are as good as SOHP knowledge of SBSP/SBPPs
  - Knowledge/awareness among SOHPs varies
    - 6 reported knowing very little
  - SOHPs know more about the programs they fund or operate
  - Rarely know about for-profits

# SBSP or SBPPs?

- Few pure SBSPs (no additional services)
  - Of the 41 states for which SOHPs reported SBSPs or SBPPs and had awareness of their status,
    - ~2/3 indicated that “all or most” programs were SBPPs, and
    - ~1/3 indicated that “at least some” were SBPPs
  - Ohio (~90%) is the largest remaining SBSP network, by SOHP design
  - Two-thirds of the non-representative sample of local programs were SBPPs

# SBSP or SBPPs?

- The two-thirds of local program respondents that were SBPPs reported providing:
  - Fluoride varnish (67% of SBPPs)
    - 28% don't know how many children get >1 FV in program year
    - 39% provide 1 FV, by design
    - 13% of SBPPs that apply FV could document that most children received it  $\geq 2$  times/program year
- Remember, this is not a representative sample

# SBSP or SBPPs?

- The two-thirds of local program respondents that were SBPPs reported providing:
  - Oral prophylaxis (58% of SBPPs)
    - 47% of these programs provided prophies to >90% of children
    - 33% of these programs provided prophies to 65-78% of children
  - Oral exam, billable (>50% of SBPPs)
  - Radiographs (not asked in local review, anecdotal references about some programs exposing radiographs were made in a few state responses)

# Well-regarded Local Programs

- 33% SBSPs and 67% SBPPs
- A median of >60% children served have Medicaid or CHIP coverage
- Program objectives vary with the type of entity operating the program (e.g., not-for-profit entities, local or county health departments, FQHCs, or for-profit entities)
  - Oral health objectives
  - Financial objectives
- More detail in full report

# Findings

## Topic 2: The role of Medicaid policies and fees in sealant program development

Take-away: Medicaid funding support is vital for the vast majority of states, but a favorable Medicaid reimbursement rate may not determine success, other than for those relying on a largely private-provider model.

# Medicaid

- Medicaid reimbursement is an important revenue source
  - “All” SBSPs bill Medicaid in most states and “some” SBSPs bill in a few states
  - **Florida: Fully grant funded programs do not bill Medicaid**
- Some state Medicaid agency policies create barriers to SBSP/SBPPs receiving reimbursement while other policies help programs receive reimbursement
- SBSP/SBPPs adapt to fees and policies and learn how to operate their program within those bounds

# Medicaid Facilitators

- A good on-line system to obtain patient billing information with minimal identifying data
  - e.g., name and date of birth
- State-specific examples
  - MA: Policy that sealant application is permitted once/3 years/child/(provider or location)
    - enables SBSP/SBPPs that may need to repair or replace another provider's sealant be reimbursed
      - other states would reject such a claim because they limit their consideration to the tooth
  - WI: Special code for reimbursing dental hygienists for conducting oral assessments in school programs

\* Florida: permanent molars <21 y.o.; 1X/3 yrs.

# General Medicaid Obstacles

- Managed care plans (MCP)
  - Those that require all services from one primary care dentist/pt.
    - NY SOHP negotiated waiver, but it won't be renewed in 2014
  - Registration with a large number of MCPs required in order to bill for care provided to all covered children in schools served by SBSP
- “Free care policy”
  - Won't pay for Medicaid-coverable services & activities generally available to all students without charge, and for which no other sources for reimbursement are pursued.
    - Provider must establish a fee for each service, collect third party insurance information from all those served and bill other responsible third party insurers as well as Medicaid. (Title V and IDEA exceptions)

## Reimbursement for Typical Combinations of Services Provided by SBSP/SBPPs.\*

	SBSP	SBPPs			
	4 sealants	4 sealants + 1 FV	4 sealants + OP + 1 FV	4 sealants + 2 FV (2 <sup>nd</sup> encounter)	4 sealants + OE + OP + 1 FV
<b>Range</b>	\$64-\$200	\$71-\$229	\$91-\$294	\$78-\$260	\$102-\$343
<b>Median</b>	\$100	\$118	\$145	\$134	\$173
<b>Ratio of Highest-to-Lowest Fee in Range</b>	3.1	3.2	3.2	3.3	3.4
<b>% increase in Medicaid reimbursement relative to 4 sealants only (SBSP)</b>		<b>18%</b>	<b>45%</b>	<b>34%</b>	<b>73%</b> [78% in Florida]

\*Based on Medicaid fees for 45 states in which Medicaid is billed by SBSP/SBPPs. Michigan was represented separately for regular Medicaid counties and for Healthy Kids Dental. Hawaii, Missouri, Montana, Oklahoma, Tennessee and Wyoming were excluded.

Topic 3: Attributes of programs that have managed to provide sealants to a substantial number of children for a sustained period of time.

Take-away: Multiple combinations of attributes characterize the five programs studied in-depth.

# In-Depth Portraits: 5 States

- Illinois
  - SOHP provides some funding to locals and limited restrictions
  - SOHP does QA for Medicaid
- New York
  - SOHP approves applications for SBHC-operated SBPPs
- Ohio
  - Pure SBSPs: most are SOHP-funded with “high control” & good data
  - SOHP has held national conferences and developed policies, manuals and distance learning curriculum that have been used by many other state and local SBSPs
- South Carolina
  - No funding but SOHP has policy lever of sole authority to approve local SBPPs for P.H. Supervision; good data
- Wisconsin
  - Joint program administration
  - Resilient funding history and good data

# Pathways to Progress

- Subject matter experts and other stakeholders should engage in three initiatives to chart the course of action:
  - Convene SBSP Sustainability Work Group
  - Convene SBSP Design and Operations Work Group
  - Promote development of public policies at federal and state levels that facilitate, rather than present obstacles to, program operation and sustainability
- Advocates and decision makers use products of these efforts to affect change

# SBSP Sustainability Work Group

- Recommend new strategies for ASTDD Best Practice and new resources for the *Seal America* manual
- Consider items that emerged from CDHP discussions with SBSP/SBPP operators:
  - business planning template (include funding sources, staffing);
  - protocol for analyzing and improving program policies;
  - resources for assessing and addressing barriers to participation;
  - systems for easily acquiring patient Medicaid I.D. numbers;
  - protocols for collecting, presenting and using data to gain new resources and maintain current funding; and
  - sample partnership agreements.

# SBSP Design & Operations Work Group

- Update program planning guidelines from the 1994 Workshop on Guidelines for Sealant Use:
  - Those not addressed in the 2009 CDC recommendations
  - Those not considered because of “sealant only” focus
- Consider items that have emerged from CDHP study and from discussions with SBSP/SBPPs:
  - Strategies for identifying and reaching high-risk children;
  - Strategies for providing appropriate services
    - Which additional services, if any, add value to sealant provision in SBSPs and under what conditions?
  - Strategies for connecting children to sources of dental care without eroding core mission of SBSP;
  - Retention, QA and data collection & use protocols

# Promote Development of Supportive Federal and State Policies

- Continue the Pew Children's Dental Campaign's work
- Use products of expert work groups in the process
- Determinative organizational actors include:
  - Federal agencies (with capacity to draw on inter-agency collaboration and partner organization support) to influence implementation;
  - State Oral Health Programs to influence and/or implement; and
  - Local and state-operated SBSP/SBPPs to influence and implement.

# Conclusion

- The CDHP review of SOHPs and local SBSP/SBPPs found a range of program designs and a difference between current practice and the original evidence base for recommending the strategy.
- The relative roles of, and interaction between, SOHPs and local SBSP/SBPPs in operating programs was found to vary among states.
- Despite the potential for SBSPs nationwide, even states identified in this report as having success in reaching a substantial number of children over time also identified significant challenges.
- The time is right to take the actions recommended in this report to improve the ability of SBSP/SBPPs to improve oral health outcomes for children.