



Dental Public Health Activities & Practices

Practice Number: 04006
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SECTION I: PRACTICE OVERVIEW		
Name of the Practice: Arizona Dental Sealant Program		
Public Health Functions: Assurance – Population-based Interventions Assurance – Building Linkages and Partnerships for Intervention Assurance – Building Community Capacity for Intervention Assurance – Program Evaluation for Outcomes and Quality Management		
HP 2010 Objectives: 21-1 Reduce dental caries experience in children. 21-8 Increase sealants for 8 year-olds' first molars and 14 year-olds' first and second molars.		
State: Arizona	Region: Southwest Region IX	Key Words: Dental sealant, prevention, children services, school based school linked program, school services
Abstract: The Arizona Department of Health's Office of Oral Health administers the Arizona Dental Sealant Program. Counties and individual providers are contracted by the state Office of Oral Health to implement the program. Funding is provided to support school-based dental sealant programs targeting high-risk schools (schools with a high proportion of children from low-income families). Dental sealants are provided to students in grades 2 and 6 in public and charter elementary schools in Arizona. Eligible schools include those with at least 65% of their students participating in the National School Lunch Program (free/reduced lunch program). Students are eligible to participate in the sealant program if they are attending an eligible school, are in 2 nd or 6 th grade, have positive parental consent and do not have private dental insurance. Children who are uninsured, Medicaid and CHIP beneficiaries, those covered by Indian Health Services or by a state-funded tobacco tax health care program can participate in the Arizona Dental Sealant Program.		
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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The Arizona Dental Sealant Program began in 1987, originally in one county (Maricopa County). The program then expanded to five counties. Between 2000 and 2002, expansion continued and presently the program serves nine of Arizona's fifteen counties.

Justification of the Practice:

Dental caries (tooth decay) remains one of the most common chronic diseases of childhood. When properly placed, dental sealants are almost 100% effective in preventing caries on the chewing surfaces of first and second permanent molar teeth. However, sealants remain underused, particularly among children from low-income families and from racial/ethnic minority groups. A 1987-1990 oral health survey of Arizona school children revealed that only 8% of 6-8 year olds had one or more sealants, placing Arizona far below the national average of the HP2010 objective. Additionally, 60% of Arizona's children ages 6-8 years have had tooth decay and 42% have untreated tooth decay. While approximately a quarter of Arizona children lack medical insurance, 38% lack dental insurance. Uninsured children are less likely to obtain dental services. Children covered by Medicaid have greater levels of untreated dental disease and less access to dental care. School-based dental sealant programs have been proven effective in reducing disparities in prevalence of dental sealants for socially disadvantaged children (Impact of Targeted, School-Based Dental Sealant Programs in Reducing Racial and Economic Disparities in Sealant Prevalence Among Schoolchildren – Ohio, 1998-1999, MMWR August 31, 2001/ 50(34);736-8).

Administration, Operations, Services, Personnel, Expertise and Resources of the Practice:

The Program Manager at the Office of Oral Health administers the Arizona Dental Sealant Program. Counties and individual providers are contracted by the state Office of Oral Health to implement the program. Funding is determined by using standards that are based on knowledge and previous experience with the schools served by the program in terms of level of student participation and need for dental sealants. The typical schedule is to schedule the schools during August to May (a school year). Portable dental equipment is used to deliver care at the schools. Only 2nd and 6th grade students are eligible for the services. Parental consent is required for program services. The program dentists assess and prescribe dental sealants for individual surfaces of permanent molar teeth only. A dentist can examine approximately 100-120 children in an average school day. On a different schedule date, the program dental hygienists, working with dental assistants, place sealants as prescribed by the dentists. A dental hygienist can apply sealants to approximately 15-20 students per day.

Urban, rural and frontier schools are eligible for the program if at least 65% of the students attending the school are enrolled in the National School Lunch Program (the free/reduced lunch program).

The state health department requires the program staff to be trained and standardized in collecting program data, providing a dental examination, applying sealants using the program's techniques, and making dental referrals based on local resources. The state health department purchases all dental supplies in order to assure bulk discounts. Supply distribution and training are coordinated through the central office in Phoenix. Coordination and scheduling of schools is made at the local level.

The Sealant Program's data collection instruments include the measures outlined in the Basic Screening Survey, which allows comparison of the oral health status of children participating in the Program with the state's oral health surveillance system. All data is sent to the central office in Phoenix for data entry, tabulation and reporting. Reports include state, county and school-level service data. Each school receives a list of children with an urgent need for dental care on the day of the dental assessments made by the dentists, as well as a follow-up computer-generated report of children with urgent and early dental needs. This provides a tool to the school to utilize for triage and follow-up care.

The Arizona Dental Sealant Program has a quality improvement program, which focus on sealant retention, provider satisfaction, school personnel satisfaction, and efficiency. The evaluation of sealant retention was integrated into the program in FY2000-01. Approximately 25 percent of

students are reassessed one week following the application of sealants by the program's dental hygienists. This provides an assessment of immediate retention of the dental sealants. Approximately 25 percent of students in 3rd and 7th grades (who received sealants when they were 2nd and 6th graders) are reassessed when the dentist returns to the school the following year to provide more examination for sealants. This gives an assessment of annual retention of the sealants. Since retention of a dental sealant is required to prevent tooth decay, retention rates directly impact the overall effectiveness of the Sealant Program. Program retention data have been collected for one year and are currently being analyzed.

In 2001:

- Approximately 50% of students returned consent forms
- 54% of screened children were identified by the dentist as needing dental sealants
- 93% of eligible children in need of sealants received the sealants

Approximately 55% of the children seen in the school-based dental sealant program were identified as needing dental care. Letters are sent to parents notifying them of their child's need for dental treatment. Of the children randomly selected for annual retention checks, approximately 90% were still in need of dental care. Two programs are planned for the 2002-03 school year to make appropriate referrals and provide case management assistance to families in obtaining care.

A partnership with the Arizona Dental Association was established in 2001 to help recruit dentists to provide dental assessments, especially in hard-to-contract areas.

Budget Estimates and Formulas of the Practice:

The Maternal and Child Health Block Grant, Preventive Health and Health Services Block Grant, a HRSA grant and a small amount of state appropriations fund the Arizona Dental Sealant Program. The overall annual budget is approximately \$390,000. The funds are used to pay for staff, travel, supplies, training, equipment, etc. All equipment is owned by the Arizona Department of Health Services but is loaned on a semi-permanent basis to contracted community sites.

Lessons Learned and/or Plans for Improvement:

- School-based programs are a very effective approach for identifying and accessing students who are most likely to benefit from sealant placement and least likely to receive them through the private dental care delivery system.
- Standardized data collection is important across counties to monitor oral health status and services delivered.
- Local dental providers are better able to leverage local resources than state staff.
- The sealant program will receive Medicaid reimbursement on a per patient/ per tooth basis beginning in fall of 2002 to further support the ongoing sustainability of the program. Approximately 36 percent of the children served by the sealant program are Medicaid/CHIP insured children.

Available Resources - Models, Tools and Guidelines Relevant to the Practice:

Arizona Dental Sealant Program Manual including various data collection forms.

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

Does the practice demonstrate impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence and outcomes of the practice)?

Most public agencies do not have the capacity to evaluate program impact in terms of caries reduction. The Task Force on Community Preventive Services recently recommended school-based and school-linked sealant programs for prevention of dental caries (MMWR November 2001). Arizona evaluates the impact in terms of increasing sealant prevalence. Preliminary data from the 1999-2002 statewide children's dental survey indicate that approximately 25% of 8-year old children have dental sealants. Since the 1987-1990 oral health survey of Arizona school children showed that 8% of 6-8 year olds had sealants, it appears that although sealant prevalence falls short of the HP2010 objective, progress in sealant prevalence has been demonstrated.

Efficiency

Does the practice demonstrate cost and resource efficiency where expenses are appropriate to benefits? Are staffing and time requirements realistic and reasonable?

- The majority of the program expenditures are spent on clinical staff providing direct patient services versus administrative costs.
- Bulk purchasing of supplies across the state decreases cost of supplies.
- Dentists provide dental assessments at a rate of approximately one per 2 minutes.
- Dental hygienists apply dental sealants under general supervision of a dentist and assisted by a dental assistant (four-handed) at approximately one patient per 15-20 minutes. This increases time efficiency and reduces program cost for staffing.

Demonstrated Sustainability

Does the practice show sustainable benefits and/or is the practice sustainable within populations/communities and between states/territories?

The program was initiated in 1987 and has been sustained for 15 years. In addition, Medicaid reimbursement will begin in fall of 2002 on a per patient/ per tooth basis, which will further support the ongoing sustainability of the program. This change has taken two years to establish but will ensure the financial stability of the program since approximately 36 percent of the children are Medicaid/CHIP insured children. Additional funding is required and provided to local programs from multiple funding sources.

Collaboration/Integration

Does the practice build effective partnerships/coalitions among various organizations and integrate oral health with other health projects and issues?

The program creates partnerships between the state, counties and local organizations. The local dental sealant program coordinators work very closely with school administrators and school nurses to schedule schools to implement the sealant program. School nurses and county health departments also work collaboratively with local organizations to provide follow-up restorative dental care to participating students. At the community level, partnerships with local dental societies, community clinics and private dentists have been established. At the state level, the program established partnerships between the state Medicaid, Medicaid-managed care companies, Federally Qualified Health Centers (FQHCs), Primary Care Association (PCA), Primary Care Office (PCO) and the Arizona Dental Association. Some of these partnerships are responsible for obtaining legislative change to allow reimbursement from the Medicaid managed care organizations to the state health department in order to sustain and expand the program.

The Office of Oral Health's collaborates with the state PCO to leverage additional staffing of dentists to provide dental examinations for the students participating in the sealant program. The PCO administers a state-funded program to provide preventive dental care to uninsured/uninsurable persons in the state. Leveraging resources has resulted in PCO-funded dental clinics' requirement to address dental sealant delivery through the school-based dental sealant program. PCO-funded

clinics will begin providing dentists as examiners for the sealant program in the communities. This collaboration also contributes to the sustainability of the program and has the potential to improve referral for follow-up restorative services within communities.

Objectives/Rationale

Does the practice address HP 2010 objectives, the Surgeon General's Report on Oral Health, and/or build basic infrastructure and capacity for state/territorial oral health programs?

The sealant program, a population-based intervention, addresses HP2010 objectives 21-8 and 21-1 to increase the percent of children with sealants and decrease the percent with tooth decay experience. It also addresses reducing health disparities highlighted in the Surgeon General's Report on Oral Health.

Extent of Use Among States

Is the practice or aspects of the practice used in other states?

Yes, the majority of states and territories have community-based dental sealant programs. ASTDD State Synopses showed that in 2001, 34 states as well as 4 territories reported having programs for dental sealants.