



Dental Public Health Activities & Practices

Practice Number: 34001
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SECTION I: PRACTICE OVERVIEW		
Name of the Practice:		
School-Based Dental Sealant Program		
Public Health Functions:		
Policy Development – Use of State Oral Health Plan Policy Development – Collaboration of planning and Integration Policy Development – Oral Health Program Organizational Structure and Resources Assurance – Population-based Program Assurance – Access to Care and Health Systems Intervention Assurance – Program Evaluation for Outcomes and Quality Management		
HP 2010 Objectives:		
21-1 Reduce caries experience among children. 21-8 Increase sealants for 8 year-olds' first molars and 14 year-olds' first and second molars. 21-12 Increase preventive dental services for low income children and adolescence.		
State:	Region:	Key Words:
New Mexico	Southwest Region VI	School based program, dental sealants, fluoride varnish, prevention, mobile dental services, children services
Abstract:		
<p>The New Mexico Department of Health, Office of Oral Health (OOH) administers a school-based dental sealant program that provides dental sealants to elementary school aged children targeting 2nd and 3rd graders but serves children in grades 1 through 6. OOH staff provides these services directly and funds other contractors to provide the services. Services are provided at the schools using portable dental equipment and at dental facilities. Sealants are placed by dental hygienists and certified dental assistants employed by and contracted with the New Mexico Department of Health. In New Mexico, registered dental hygienists require general supervision when applying dental sealants. Certified dental assistants can also place dental sealants when under the direct supervision of a registered dental hygienist or licensed dentist. Currently, the Dental Sealant Program has three dental assistants that are certified in placing dental sealants. The dental sealant program offers services at no costs to the parents/guardians and participating schools. Furthermore, the school-based dental sealant program is funded through general funds provided by the State of New Mexico. Participating elementary schools need to have at least 50% or more of its student population on the free and reduced school lunch program to qualify for the dental sealant program. The New Mexico's Dental Sealant Program provided approximately 8,625 children with sealants during the school year 2007. The retention rate for sealants applied through OOH program is 90% or better.</p>		
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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

In 1978, the New Mexico Department of Health, Office of Oral Health began providing mobile dental sealant services to the state's elementary schools. The program provides direct delivery of services; its success depends greatly on the partnerships with the New Mexico elementary schools it serves.

In 2006, the program expanded by contracting with providers to provide dental sealants to underserved areas along with coordinating the dental sealant activities to better serve the population. The Dental Sealant Program has now become a substantive part of the school health services in many New Mexico elementary schools. The Office of School Health will also be implementing a dental program that offers dental sealants to middle school aged children.

Justification of the Practice:

Dental caries can be prevented by a combined use of fluorides and dental sealants. Fluoridated water is an optimal preventive measure for the smooth surfaces of teeth, preventing about 80% of the decay in these surfaces. Furthermore, fluoridated water also prevents 20% of the decay in the fissured chewing surfaces of the teeth. Several studies have shown the combination of fluorides and dental sealants can reduce the incidence of decay up to 85%. If dental sealants are properly applied to newly erupted permanent molars' chewing surfaces, these sealants can be 100% effective in preventing tooth decay. Benefits of dental sealants begin immediately after application and are effective as long as the sealants are retained. Further research has documented the effectiveness of dental sealants in reducing dental decay even when the dental sealants are partially retained.

The Dental Sealant Program has been developed and continues to answer the need for preventive dental services for schoolchildren especially in rural New Mexico. Many low-income children of New Mexico have limited or no access to preventive dental care. Studies have shown that school-based programs are very successful in reaching the low-income children by reducing the chances of missed appointments and increasing access to care. The Task Force on Community Preventive Services recommends school-based and school-linked sealant programs for prevention of dental caries based on a systematic review of scientific evidence (MMWR November 30, 2001). New Mexico is classified as a health care professional shortage state, prevention programs such as the Dental Sealant Program is critical to reducing the incidence of dental caries.

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

The goal of the Dental Sealant Program is to prevent dental caries in a child's first permanent molars. The program targets 2nd and 3rd grade children in low-income schools but serves children in grades 1 through 6. The Dental Sealant Program is administered through the Office of Oral Health (Headquarters) and through regional offices located in three of the state's public health districts. Headquarters oversees the contractors providing dental sealants and coordinates dental sealant activities with other providers. Each regional office is responsible for the scheduling and coordination of the Dental Sealant Program within their geographic area.

The Dental Sealant Program staff includes: three and a half time equivalent dental hygienists (three employees and contracted temps), four full-time equivalent dental assistants, two full-time dental case managers and two contract dentists. The Program Director oversees the statewide activities in addition to collecting the dental sealant data.

The process for providing treatment by state staff begins with the distribution of an educational sealant video, bilingual consent forms authorizing treatment for a two-year period, and informational pamphlets about the benefits of sealants and general oral health information. Class lists of both second and third grade students are returned to the OOH. The OOH has the third grade students' charts and consent forms from the previous school year, which enables the dental sealant program staff to check and reapply any lost sealants. The program aims to retain all dental sealants placed the previous year.

After the forms are collected and organized by class list, the next step in the process is scheduling dental screenings. The screenings are complete by a licensed dentist who travels to the schools with program staff. The dentist screens the second grade children who have a signed consent form requesting services from the Dental Sealant Program. At the same scheduled days, the third grade students are screened to check for sealant retention. During the screenings, each child is evaluated to determine their need for sealants. A follow-up letter is sent home with the child along with a toothbrush explaining services needed or providing the reason why a child's teeth were not suitable for dental sealants (e.g., presence of restorations and/or decay, missing permanent teeth, or teeth are already sealed).

After the screenings, the dental sealant team, usually consisting of a dental hygienist and dental sealant certified dental assistants, travel to the school to place the sealants. In New Mexico, registered dental hygienists have general supervision when applying dental sealants. Certified dental assistants can also place dental sealants when under the direct supervision of a registered dental hygienist or licensed dentist. Currently, the Dental Sealant Program has three dental assistants that are certified in placing dental sealants. Many times two teams, or four program staff members, travel to a school.

After completing the placement of dental sealants for a child, another follow-up letter to the parents goes home with each child. The letter includes the following information:

- How many sealants were provided,
- The reason why sealants were not provided, if this situation arose,
- Recommendations for further dental treatment, and
- The method to contact the program

The current Dental Sealant Program staff has many years of experiences in implementing a school-based dental sealant program and using mobile equipment. However, ongoing efforts are made by the Dental Sealant Program staff to address the following to assure that the program is run efficiently:

- Make sure that all staff is familiar with how the portable equipment should be transported, set-up and taken-down prior to going to a school. This will assure that problems can be worked out and will help maintain a long service life of the equipment.
- Make sure adequate space at the school sites is available to set up equipment with these considerations: (1) proper type and number of outlets for electrical hook-ups, (2) access to running water (the closer the better), and (3) easy access to entry for transport of equipment and supplies.
- Make sure portable dental equipment and supplies can be transported easily in available vehicles. Currently, OOH has several 12-passenger vans to transport equipment, supplies and staff to the schools. Equipment and supplies can be transported and set up easily by two people.

The evaluation of the Dental Sealant Program is designed using a goal attainment model. The Dental Sealant Program consent form, requiring a signature from a parent/guardian, allows for follow-up and evaluation of the children participating in the program. The consent allows the Dental Sealant Program staff to check the retention of the dental sealants previously placed and to evaluate if recommended dental treatment has been completed. Follow-up of 3rd graders (who received dental sealants in the 2nd grade) demonstrated that the program has a retention rate of 90% or better.

The Dental Sealant Program provided dental sealants to approximately 8,625 children in the school year 2007-2008. The impact of the program is demonstrated by increased dental sealant prevalence in the four public health districts of the state. From the findings of the New Mexico's Oral Health Survey in 2000, in three of the districts, where the Dental Sealant Program's presence is strong, the prevalence of sealants are observed among 47-52% of the 3rd grade students. In comparison, in one district where the sealant program's presence is minimal, there was a sealant prevalence of only 19% among 3rd graders. With recent expansion of the program, the Office of Oral Health is currently providing dental sealants in underserved areas statewide.

Budget Estimates and Formulas of the Practice:

The Dental Sealant Program is supported by general funds from the Office of Oral Health. The program is fully supported by state funding that covers staff costs (program dentists, dental hygienists and dental assistants, and temporary staff), supplies, maintenance/repair of portable equipment, travel/gas/vehicles, staff training, and additional contracted dental providers.

In SFY 2008, the New Mexico State Legislature expanded the Dental Sealant Program with adding funding of \$450,000. This funding allowed for more contracting of dental providers.

Lessons Learned and/or Plans for Improvement:

Lessons learned:

- It is critical to have good communication with schools to ensure that there is adequate space for the equipment, that students are present for the services, and that consent forms have been collected by the schools.
- Communicate clearly of the program's expectations to the school; be sure the school nurse understand the program's requirement for space (many schools have limited space) and the length of time needed to complete the sealant services.
- Always have back-up equipment. Since the program requires traveling to schools that are located one to two hours from the home office, time is wasted if there is a need to return to the office for replacement equipment.
- Remain flexible with scheduling screening and treatment days and how to setup in each school.

Plans for improvement:

- The Office of Oral Health is planning to develop a new database to better track the sealant program's retention data.

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

- Wisconsin Dental Sealant Manual (has procedure and protocols for starting and maintaining a school-based dental sealant program)
- "Seal in a Smile" video (distributed by the Columbus Health Department in Ohio educates children about what dental sealants are, how they work and the process of having dental sealants placed)

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)?

If dental sealants are properly applied to newly-erupted permanent molars and are fully retained, these sealants can be 100% effective in preventing tooth decay. The Task Force on Community Preventive Services recommended school-based and school-linked sealant programs for prevention of dental caries based on a systematic review of scientific evidence. The New Mexico's Dental Sealant Program provided 8,625 children with dental sealants during the school year 2007-2008. Further, a comparison of three public health districts where the program provides most of its services demonstrated a sealant prevalence of 47-52% among 3rd graders compared to a district minimally served by the program having only 19% of the 3rd graders with sealants.

Efficiency

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

Studies have shown that school-based programs are very successful in reaching low-income children, reducing the chances of missed appointments and increasing access to care. Utilization of auxiliary dental staff (i.e. certified dental assistants) has made the practice of placing dental sealants very efficient in New Mexico. The dental sealant program is able to more sealants with certified dental assistants without the added cost of hiring more dental hygienists.

Demonstrated Sustainability

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

The Office of Oral Health began providing mobile dental sealant services in 1978 to New Mexico's elementary school children. By having the infrastructure as a state-funded program, which employs full-time dental staff, the Dental Sealant Program is able to sustain service delivery over the years for children in low-income schools. The program has been expanded due to the New Mexico Legislature providing additional funds for the program. The funds have been used to contract with dental providers to expand the dental sealant program.

Collaboration/Integration

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

The Dental Sealant Program is a substantive part of the school health services in New Mexico elementary schools. The school officials and personnel (superintends, principals, school nurses and teachers) are partners of the program.

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 Dental Sealant Program addresses the 2010 objectives by supporting efforts to reduce children's caries experience and increase the placement of dental sealants on permanent first molars.

Extent of Use Among States

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

The practice of school-based/school-linked dental sealant programs exists in many states. ASTDD State Synopses showed that in 2008, 76.5% of the state and territories reported having programs for dental sealants. New Mexico's sealant program is 100% supported by state funding. The extent of other state sealant programs that are entirely supported by state funding is not known.