



Washington State
**School-based Sealant
and Fluoride Varnish
Program Guidelines**

Third Edition
June 2012

Washington State School-Based Sealant and Fluoride Varnish Program Guidelines

3rd edition
WAC 246-814-040 and -030



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Introduction

Dental caries is the most common chronic disease of childhood, especially among disadvantaged populations. When dental caries occur, it takes a myriad of resources to treat it, which many families cannot afford. If left untreated, dental caries in children can lead to unnecessary pain and discomfort and poor performance at school. School-based sealant programs are one of the two national best practices recommended for caries prevention. The other best practice is community water fluoridation.

This third edition of the Washington School-Based Sealant and Fluoride Varnish Program Guidelines (or simply, Guidelines) provides updated information for those interested in participating in school-based sealant and fluoride varnish programs. The goal is to facilitate the implementation of effective and efficient programs.

New evidence used in this edition comes from credible national and state sources, including the Centers for Disease Control and Prevention (CDC),¹ the American Dental Association (ADA),² the national model Seal America: The Prevention Invention,³ and the Ohio School-based Sealant Program Manual.⁴ Literature reviews and input was sought from local, state and national experts including local oral health coordinators, community dental professionals, and schools.

The first edition of the Guidelines was created in 1996 and the second edition in 2002. In 2001, the new Washington Administrative Code (WAC) 246-814-040 allowed dentists, dental hygienists, and registered dental assistants to participate in school-based dental sealant and fluoride varnish programs if they followed these Guidelines. For ease of use, the Guidelines follow the format of its fathering WAC. Other WACs and RCWs were enacted afterwards. WAC 246-814-030 highly recommends the coordination of these dental providers with local oral health programs, local oral health coalitions, and schools as a way to monitor the extension and quality of school-based sealant programs.

Dental Caries in Childhood

The 2000 Report from the U. S. Surgeon General, *Oral Health in America*, called attention to the silent epidemic of dental caries and the link between oral health and general health. Still, dental caries remains highly prevalent among children and adults, leading to unnecessary pain and suffering, difficulty in eating, speaking and sleeping, and low performance at school and at work. Dental caries remain the most common chronic disease in children, impacting their ability to learn at school and to enjoy life.

Fortunately, dental caries are largely preventable by measures taken at the community and personal level like water fluoridation, dental sealants, healthy nutrition, and good oral hygiene.⁵ Preventing dental decay costs less to families and communities compared to the high costs of dental treatment, and subsequent lower quality of life.

¹ Centers for Disease Control and Prevention, Division of Oral Health. At www.cdc.gov/OralHealth/

² American Dental Association. At www.ada.org/

³ Seal America. 2011. At <http://www.mchoralhealth.org/seal/>

⁴ Ohio School-based Dental Sealant Program Manual. (2009). At www.odh.ohio.gov/odhprograms/ohs/oral/oralfeatures/dentsealants.aspx

⁵ Washington State Oral Health Program, Oral Health Messages. At www.doh.wa.gov/YouandYourFamily/OralHealth.aspx

The [Washington State Smile Survey 2010](#) found 40 percent of preschoolers and 58 percent of third graders had caries experience (e.g., treated and untreated caries).⁶ The children most likely to have caries experience included those from low-income families, followed by children who were Hispanic and spoke another language at home (especially Spanish). These high rates have persisted since 2000, and remain higher than the national [Healthy People 2020 Objectives](#) of 30 percent and 49 percent, respectively. Such high rates indicate missed opportunities for dental caries prevention. Therefore, the need for supporting community-based preventive measures such as school-based sealant programs remains.

Dental Sealants

Sealants are thin plastic coatings applied to the top of posterior teeth to prevent the accumulation of bacteria and food debris that lead to dental caries. Today's dental sealants evolved from a technique called enamel bonding that was first reported in the mid-1950s. Dental sealants were introduced in 1967 and their effectiveness was recognized by the American Dental Association in 1971 and again in 2008. Current sealant materials are either chemically activated or light polymerized and come in various colors, including clear, white, yellow, green, and pink.

The delivery of sealants in school settings is recommended as a best practice because it can reach children unlikely to receive sealants otherwise, leading to the elimination of sealant disparities.^{7,8}

In children, the majority (90 percent) of dental caries are located in the pits and fissures and on the occlusal (chewing) surfaces of the posterior teeth. The decision to place sealants is usually based on the patient's risk factors, presence of disease, and the shape of the teeth pits and fissures. Teeth with the highest propensity to caries and therefore recommended for sealant placement are the first and second permanent molars when fully erupted at ages 7–8 (2nd–3rd grades) and 12–14 (6th–8th grades). At this time, these teeth have deep pits and grooves where bacteria and food can hide and are difficult to be reached with a toothbrush. Therefore, school-based sealant programs focus on these age groups.

Primary or baby molars and permanent pre-molars may be less susceptible to decay due to their shallow grooves, and therefore are not a priority for sealant placement from a public health perspective. *Healthy People 2020* contains a new objective regarding sealants in primary (baby) molar teeth. Although previous research shows that sealants can be retained in primary teeth, evidence is needed to estimate the caries-preventive effect of the procedure.^{9,10}

A sealant is virtually 100 percent effective if fully retained on the tooth. Although the application process is fairly simple, attention to technique is very important. A well-placed sealant can last as long as 5 to 10 years in erupted permanent molars.¹¹

The *Washington Smile Survey 2010* showed that 51 percent of public school third graders had sealants, a rate that surpasses the national *Healthy People 2010* objective of 50 percent and the new *Healthy People 2020* of 28.1 percent. The survey shows that the number of sealants in low-income and Hispanic children increased significantly since 2005. Such results led to the elimination, for the first time in the country, of sealant disparities among third graders of all income levels. These numbers are encouraging, and show the effectiveness of school sealant programs in reaching children from all backgrounds.

⁷ Centers for Disease Control and Prevention, Oral Health. At www.cdc.gov/oralhealth/topics/dental_sealant_programs.htm

⁸ U.S. Preventive Task Force. Community Guide on Community Preventive Services. At www.thecommunityguide.org/oral/supportingmaterials/RRschoolsealant.html

⁹ Van Wyk et cols. Evaluation of a fissure sealant program as part of community-based teaching and training. *JDE*, 2004; 68(1):50-54.

¹⁰ Hotuman E et al. Fissure sealants in a group of 3–4 year old children. *Int J PD*, 1998; 8:159-60.

¹¹ Centers for Disease Control & Prevention Dental Sealant Fact Sheet. At www.cdc.gov/oralhealth/publications/factsheets/sealants_faq.htm

Fluoride Varnish ^{12, 13}

Fluoride varnish is a more recent approach to prevent dental caries that has been successful in the private sector and is increasingly used in public settings. Fluoride varnish works by increasing the concentration of fluoride in the outer surface of primary (baby) and permanent (adult) teeth. The amount of fluoride deposited in the tooth surface is considerably greater in demineralized versus sound tooth surfaces. Thus, the benefits of fluoride varnish are greatest for individuals at moderate-risk or high-risk for demineralization or dental caries.

School programs using fluoride varnish are more likely to demonstrate benefits and reduce dental caries in at-risk populations when applications are offered at least at six-month intervals over at least two years in duration in combination with counseling. For the prevention of early childhood caries, initiation of fluoride varnish should begin no later than age one for highest risk children. In Washington State, fluoride varnish can be applied in dental and medical offices by trained personnel.

Washington State Laws and the Guidelines

In order to increase access to preventive oral health care, the Washington State Legislature enacted Substitute Senate Bill 6020 (SSB 6020) in 2001. This legislation enhanced public health and school-based programs by utilizing dentists and registered dental assistants, public health and private licensed dental hygienists with a Sealant/Fluoride Varnish Endorsement to work with schools. In 2009, the Legislature enacted [Substitute House Bill 1309](#) (SSB 1309) to add prophylaxis to the list of procedures allowed in schools by dental hygienists.

Several Washington Administration Codes (WACs) and Revised Codes of Washington (RCWs) derived from these bills (www.leg.wa.gov/LawsAndAgencyRules/Pages/default.aspx):

[WAC 246-814-040](#) – Training and the provision of services

[WAC 246-814-010](#) – Purpose

[WAC 246-814-020](#) – Practices authorized

[WAC 246-814-030](#) – Application process and training required for endorsement

[RCW 43.70.650](#) – School sealant endorsement program – Rules – Fee – Report to the legislature

[RCW 18.29.056](#) – Employment by health care facilities authorized

[RCW 18.29.220](#) – Community-based sealant programs in schools – data collection

[RCW 18.29.230](#) – Services at senior center and community-based sealant programs

[RCW 18.32.226](#) – Community-based sealant programs in schools (Dental assistants)

These state laws refer to the Washington State Dental Sealant and Fluoride Varnish Program Guidelines as a tool to assist providers and organizations in planning, implementing, and evaluating school-based programs.

Terminology

In this document:

- “Dentist” refers to a Washington State licensed dentist.
- “Hygienist” refers to a Washington State licensed dental hygienist.
- “Dental assistant” refers to a Washington State registered dental assistant.
- “Expanded Function Dental Auxiliary (EFDA)” refers to a licensed Washington State EFDA.
- “Guidelines” refers to the Washington State School-Based Sealant and Fluoride Varnish Guidelines.

School sealant and varnish programs include school-based and school-linked programs. School-based programs are conducted entirely in the school setting. School-linked programs may be conducted in both the school and in clinical settings outside the school.

¹² American Dental Association Council of Scientific Affairs. Professionally applied topical fluoride. Evidence-based clinical recommendations. JADA, 137:1151-59. Aug 2006. At <http://jada.ada.org/content/137/8/1151.full.pdf+html>

¹³ Association of State and Territorial Dental Directors. Fluoride Varnish Research Brief. Sept 2007. At <http://www.astdd.org/docs/FluorideVarnishPaperASTDDSept2007.pdf>

CHAPTER 1

Assess and Target At-Risk Populations

Needs Assessment

It is important to define the target population for the school-based dental sealant program. A needs assessment in your community will provide valuable data that can help determine, establish and adapt services and programs to best serve local community needs. The state and county-level Smile Surveys and the [ASTDD Oral Health Needs assessment](#) are valuable references for assessing the oral health of a community.

Steps to Identify Target Population

- Identify partners and form an advisory committee.
- Meet with the Local Health Jurisdiction (LHJ) or local oral health coalition to identify at-risk populations for the targeted geographic area.
- Request program approval from the main school district office or health services lead (this may be a school nurse).
- Target [schools with high free and reduced-priced meal rates](#) (>50 percent).
- Identify schools that are low-income, rural, and have children at risk for developing dental caries.
- Select a school site and identify grade level.
- Identify children to receive sealants and fluoride varnish.
- Identify specific teeth to receive dental sealants.

It is important to recognize the different characteristics of public health school-based programs versus private programs. Below is a brief summary:

School-based or school-linked programs	Private providers or clinic programs
Non-continuous and episodic access to care. School settings allow limited choices of providers and services.	Continuous access to care at planned recall intervals. Patient can choose from a wider range of services and providers.
Treatment monitoring is limited due to episodic care and/or multiple providers.	Monitored treatment that can be observed over many years by the same provider or clinic.
Assessment options beyond visual and tactile are less likely to be available.	Full range of assessment options available.
Caries risk level of school or community is considered.	Individual caries risk assessment available.
Treatment is less likely to be comprehensive and restorative options are frequently unavailable.	Provides a full range of comprehensive treatment options.
Parents and caregivers are not usually present to provide additional dental history.	Parents and caregivers can be present to provide additional dental history.

Overall, public health programs focus on cost-effective interventions with the largest impact on communities while private programs focus on individualized care.

Indicators to Consider in the Needs Assessment

Income Level

Consider income as criteria for selecting high risk populations. Children from low-income families tend to have higher disease experience and receive less dental treatment. In order to address health disparities, most school-based sealant programs in the state select schools according to some indicator of the economic need. The USDA's Free and Reduced-Price Meals program is the most used proxy for low-income when targeting schools. A minimum of 50 percent Free and Reduced-Priced meals percentage should be used to target schools.¹⁴ Additional schools may be served after all schools in an area with 50 percent or more with Free and Reduced-Priced meals are served or have declined participation. The Office of Superintendent of Public Instruction publishes Free and Reduced-Priced Meals data yearly at: www.k12.wa.us/ChildNutrition/Reports/FreeReducedMeals.aspx

In exchange for the privilege to work in school settings, dental professionals are asked to offer the sealant program to **all** students in the targeted grades regardless of their ability to pay for the dental services offered. Income eligibility data for the Free and Reduced-Price Meals program should be confidential. Offering dental sealants to all students removes the chance of stigmatizing low income children.

School-based sealant programs frequently target schools in which at least 50 percent of students are eligible for the USDA's free and reduced-priced meals.

Ethnicity

Hispanic, Native American, and/or English as Second Language (ESL) populations have higher caries prevalence. Children from a nonwhite background and/or who spoke another language at home (especially Spanish) are often more likely to have dental disease and poorer access to care.

Living Situation

Communities with large numbers of immigrants, refugees or undocumented individuals may not qualify for the Free and Reduced-Price Meals program. This population and families in unstable living situations frequently have a higher caries risk than the general population. It is important to include these children in the school-based program. Check to see if schools and communities in your area have programs to assist low income and homeless families.

Special Health Care Needs

Children with special health care needs or students in special education classes are more likely to have higher dental caries rates and difficulty in accessing dental care. To assist parent or caregivers caring for children with special health care needs, please use and/or provide the Family/Caregiver version of the Fact Sheets on Oral Health Care for Children with Special Needs. The set of fact sheets cover fourteen of the most common chronic conditions (autism, epilepsy, ADHD, etc.), and has versions for dental and medical professionals as well. This resource is located on the University of Washington Dental School website: <http://dental.washington.edu/departments/oral-medicine/special-needs-fact-sheets.html>

Access to Care

The ability of children to receive care at a private dental office or a non-profit community-based dental clinic can influence the selection of which children to target for participation. Some programs or school policies limit sealants or fluoride varnish applications to those children who do not have a dentist or have gone two years without seeing a dentist.

¹⁴ Siegal M., Detty A.M. Targeting school-based dental sealant programs: who is at "higher risk"? *Journal of Public Health Dentistry*. 2010; 70(2): 140-7.

Community Water Fluoridation

While dental sealants benefit the tooth surfaces with pits and fissures, fluoride benefits the smooth surfaces of teeth. Children living in a community with a fluoridated public water supply tend to have fewer smooth surface caries than children living in a non-fluoridated area. Students with high mobility rates (students that move often) may be less likely to have lived in areas of optimal water fluoridation long enough to benefit from it. See [Fluoride in Drinking Water](#) to check a community's fluoride level.

Geographic Location

Rural communities tend to have fewer (or remote) dental care providers for the population base and to be smaller in size. Rural populations are more likely to have wells and less likely to have fluoridated community water supplies. In 2008, between 13 percent and 27 percent of Washington's residents lived in areas classified as rural depending on the classification method used.

For more information on rural health, visit the U.S. Census and Department of Health Rural Health website: www.doh.wa.gov/PublicHealthandHealthcareProviders/RuralHealth.aspx

Healthy People 2020

Healthy People provides 10-year national objectives for improving the health of all Americans. This comprehensive set of disease prevention and health promotion objectives direct activities toward increasing quality and years of a healthy life and eliminating health disparities. Visit [Healthy People 2020](#) to view the objectives for overall health and oral health.

Program Resources

Programs will vary in their ability to offer sealants depending on the resources available. Some programs may be able to offer sealants to all students in both second and sixth grades while others may only be able to offer to one grade level.

Multiple applications of fluoride varnish in a year are required for children at highest risk for caries; this may limit how many grades the fluoride varnish program can target. The location of the grades within the school, caries experience of the individual children, tendency of the children in older grades not to participate, and school schedules can all influence the ability of the program to serve the maximum number of students.

Program Targeting

Targeting may differ for sealants and/or fluoride varnish programs due to the differing prevalence of dental caries patterns. Pit-and-fissure caries are most likely in the first and second molars, which makes these teeth ideal for school-based sealant programs. Fluoride varnish is used to remineralize smooth tooth surfaces and is targeted towards children with a moderate to high risk for dental caries.

In school sealant programs, the caries risk level of the community served needs to be considered. Children from low-income families and racial/ethnic background are at higher risk for developing caries. The caries risk in this population is sufficiently high to justify sealing all eligible permanent molars as a cost-effective prevention strategy.¹⁵

¹⁵ Quiñonez R. et al. Assessing cost-effectiveness of sealant placement in children. *Journal of Public Health Dentistry*. 2005; 65(2): 82-89.

CHAPTER 2

Establish Community Capacity and Infrastructure

Successful school sealant and/or fluoride varnish programs have several common elements:

- Small local beginnings
- Coordination with local Public Health Department /Local Health Jurisdictions (LHJ) and/or local Oral Health Coalition as defined in [WAC 246-814-030](#) (#6)
- Advisory group involved in the planning and learning process. This includes links to a network of local community leaders and agencies committed to improving children's health

Small Local Beginnings

The local community is the expert in identifying needs and bringing together resources to address them.

Coordination

WAC 246-814-030 requires that school-based providers work in coordination with local public health jurisdictions (LHJ) or a local oral health coalition. Coordination requirements may vary with each LHJ. A written Memorandum of Understanding (MOU) or a simple Letter of Understanding with a LHJ is required. (See Appendix B).

The MOU is a written agreement between the provider and the County or local oral health coalition stating that the provider will follow WAC and the guidelines in this publication.

Advisory Group

Once you connect with the LHJ or oral health coalition, form an advisory group.

The school sealant program may choose to request an existing oral health coalition serve as an advisory group. Seek members from various sectors of the community for the advisory group to increase the chances of maintaining a diversified yet interested membership. Advisory members bring expertise from professions, businesses, schools, and consumers. An involved advisory group better insures community support for the program. Extend invitations to participate in the advisory group to members of the following groups:

- Local oral health providers
- Local schools
- Other health professionals
- Businesses

Local Oral Health Providers

The oral health community includes licensed dentists, dental hygienists, dental assistants, expanded function dental assistants, denturists, dental laboratories, technicians, oral health clinic managers, as well as, medical homes, physicians, physician assistants, and nurse practitioners. Non-profit dental services include neighborhood, community, federally funded, migrant, tribal dental clinics, for-profit dental, dental hygiene, and other oral health-related services. Networking with community providers strengthens the program in many ways.

Local Schools

The school community includes superintendents, principals, teachers, counselors, librarians, school nurses, and supportive personnel who work directly for a school or school district, either public or private. Include students who are recipients of the services, parent teacher groups, and student parent or caregivers. The school community must be an active participant in the decision-making process of the program. Appendix C has a checklist that can be useful for school staff to use when approached by a dental professional interested in establishing a school sealant program.

Other Health Professionals

Pediatricians, family physicians, physician assistants, nurse practitioners, nurses, naturopaths, dietitians, members of the Board of Health, county commissioners, nutritionists, pharmacists and hospital personnel are vital links to the successful marketing and promotion of dental disease prevention programs. Seek to educate and involve representatives from interested and willing providers.

Health professionals who work with children and families will be interested in learning about school-based dental sealant and fluoride varnish programs. As knowledge expands about the underlying associations between oral health and general health, greater awareness of the importance of oral health will emerge. By working with the health community, the new sealant program becomes another link toward prevention of dental disease and promotion of oral health and general health.

Businesses

The business community is a great resource for advisory groups. Extend advisory membership invitations to businesses, corporate bodies, insurance carriers, labor, and philanthropic organizations. Partnerships with the business and labor community provide opportunities for education, financial support, and advocacy for the program. Businesses need healthy employees, customers, and communities.

It is important for the business community to understand that prevention of dental disease early on avoids more costly care later on. Dental sealants and fluoride varnish are proven dental caries prevention strategies. Endorsements of the new sealant program by organizations such as United Way, Kiwanis, Lions Clubs, YWCA, YMCA, Soroptimists, Boy and Girl Scouts, local businesses, and from well-respected members of the political, business, regulatory and philanthropic organizations may provide opportunities for funding and sharing sponsorship. Work with local groups and media to inform the community of the benefits of early prevention and the value of an oral health preventive program.

Program Planning

Invite key advisory group members to join the program-planning phase. Clarify the roles and responsibilities of each member. Establish informal rules about when to call meetings, how to conduct meetings, how to record progress, and how to make decisions. Share information from the local public health department regarding expectations in school-based programs with the group. Ask members to help shape, change, and critique the plan. Keep the planning focused on community needs and maintain flexibility as the program evolves and grows. Each group will have a different role to play.

Expanding the Program

Once you have planned and implemented a successful local program in one location, you may want to expand and provide services to another school. Keep in mind you must coordinate with the LHJ or a local oral health coalition before approaching any school. Be aware that public health departments have geographical boundaries, although schools may be in close proximity, they may be in different LHJ's or school district areas of responsibility. Do not assume that an agreement with one LHJ will be acceptable to another LHJ. The purpose of this requirement is to maintain coordination of preventive activities and avoid duplication.

Use the advisory committee for their expertise in identifying leaders in the proposed new sites. If the communities are very diverse, create another local advisory group that can commit to improving the health of children. Remember to check whether a local oral health coalition already functions in the selected community. As community advocates for children's health emerge from your advisory groups, link with them and any organizations they may be associated with to foster support and knowledge of the program.

CHAPTER 3

Medical Coverage and Reimbursement

Washington's Medical Assistance programs provide healthcare and dental coverage for low-income residents and children who meet certain eligibility requirements. Approximately 1.2 million Washington residents, nearly two thirds of them children, depend on medical assistance programs for their healthcare.

[Eligibility for Medical Assistance](#) is determined at the local [Community Service Office](#).

Washington State has a number of programs dedicated to providing health care coverage to low-income residents. The largest single source for this coverage is Medicaid. The Health and Recovery Services Administration (HRSA) of the Health Care Authority (HCA) operates the Medicaid program.

Medicaid pays for covered dental and dental-related services for children when they are:

- Within the scope of the eligible clients medical care program
- Medically necessary
- Within the standard of care
- Within accepted dental or medical practice procedures
- Consistent with a diagnosis of dental disease or condition
- Reasonable in the amount and duration of care, treatment, or service
- Subject to the limitations and listings of non-covered procedures

For information on Medicaid coverage visit: [Coverage for children under age 20](#).

Medicaid Reimbursement

In Washington State, both dentists and licensed dental hygienists are assigned provider numbers and are able to bill for covered dental services. The Medical Assistance Administration establishes fluoride varnish and dental sealant reimbursement rates.

How to Bill – ProviderOne

The Washington State Health Care Authority's Medical Assistance Program administers Medicaid. Their payment processing system, ProviderOne, manages all medical, dental, vision and nursing home transactions, including claims, eligibility inquiries, and adjustments.

Access to the ProviderOne webpage:

- Information for providers: <http://hrsa.dshs.wa.gov/providerone/providers.htm>
- Become a Medicaid Provider: <http://hrsa.dshs.wa.gov/ProviderEnroll/enroll.shtml>
- Subscribe to HRSA's Provider Listserv: <https://fortress.wa.gov/dshs/hrsalistsrvsignup/>

Private Insurance Reimbursement

The Current Dental Terminology (CDT) code book published by the ADA has been designated as the national standard for reporting dental services by the Federal Government under the Health Insurance Portability and Accountability Act, and is recognized by third-party payers nationwide. To bill private insurance a current edition may be a useful reference. To learn about private dental insurance billing, contact the individual insurance company directly.

CHAPTER 4

Staff Needs and Training

The staffing needs of a school sealant and/or fluoride varnish program depend on the size of the targeted population, the availability of dental professionals, and the extent of funding resources. Dental hygienists and dental assistants must provide proof of completion of the training incorporated in the Guidelines.

List of the typical roles and program responsibilities of dental professionals:

Dentist	Dentists licensed under RCW 18.32 must screen children for school-based programs when registered dental assistants provide services.
Dental Hygienist	Endorsed dental hygienists may assess the need and acceptability of sealant and/or fluoride treatment for children. This term does not include or allow for diagnosis of any condition.
Expanded-Function Dental Auxiliary	Endorsed expanded-function dental auxiliary working under RCW 18.260.070 may apply sealants and fluoride varnish under the general supervision of a Washington State licensed dentist.
Dental Assistant	Dental assistants working under WAC 246-817-510 may apply sealants and fluoride varnish under the general supervision of a Washington State licensed dentist. Dental assistants employed by a Washington State licensed dentist for 200 hours before April 19, 2001, are not required to obtain an endorsement from the state but may voluntarily do so. Dental assistants employed by a Washington State licensed dentist for 200 hours after April 19, 2001, must obtain an endorsement to provide school-based oral health services.
On-site Coordinator	An on-site coordinator can ensure the most efficient use of time with minimal disruption to the school.
Support Staff	Administrative support staff can schedule, handle equipment, supplies, and billing.
Contracted Sealant Provider	Credentialed community providers is another method of staffing school-based programs.

Licenses

Licensed personnel must have a valid copy of a Washington State practice license with a school sealant and fluoride varnish endorsement and documentation of current CPR certification. Document staff licenses, WISHA training, confidentiality training and immunization records. Keep all documents and written personnel policies in a central location. Licensed personnel must display their practice license in a conspicuous location in the workplace. (RCW 18.32.190, 18.29.060).

Endorsement Application

School sealant endorsement application forms can be found at:

Dental Hygienist: www.doh.wa.gov/Portals/1/Documents/Pubs/645106.pdf

Dental Assistant: www.doh.wa.gov/Portals/1/Documents/Pubs/642001.pdf

Staff Training

- Infection Control ([WAC 246-817-601](#) through 246-817-630)
- Hazardous chemicals training
- OSHA [Material Safety Data Sheets](#) (MSDS)
- Occupational Safety and Health Act (OSHA)
- Washington Industrial Safety and Health Act ([WISHA](#))
- Medical Records Chapter [70.02 RCW](#) (Revised Code of Washington)
- ProviderOne [Health Insurance Portability and Accountability Act](#) (HIPAA)
- Family Educational Rights and Privacy Act Regulations ([FERPA](#))
- [Emergency preparedness training](#) (Washington State Department of Health)

Calibration Training

Staff familiar with screening criteria will be able to screen children quickly, but be sure to calibrate all staff members. Review all written criteria for tooth selection and assessments. A preclinical power point slide presentation and test is a good method to introduce new team members to the calibration process. A clinical training in the application of sealants and fluoride varnish is required. All new staff members must pass calibration and a clinical training session.

Record Keeping

School sealant programs must develop forms for recording data; see Chapter 6 Collection of Assessment Data section for a list of required data. Each member of a school-based dental sealant team must be able to record all necessary data accurately. Perform a calibration exercise or “mock” clinic to assure that all staff members are familiar with all data collection forms and procedures. The uniformity of data collected is imperative for valid data analysis.

Emergency Preparedness Training

Develop emergency procedures protocol for any possible portable work-site emergency before implementing the program. Prepare accident and injury report forms, including emergency phone numbers. Review emergency kits and how to use a fire extinguisher. This is a good time to add CPR and Automated External Defibrillator (AED) unit review. Ensuring each member of has an up to date Basic Life Support for Health Care Providers CPR training. For additional information visit the American Heart Association at www.heart.org.

Behavior Guidance

Staff training in behavior guidance techniques for working with uncooperative students is beneficial. A helpful resource on behavior guidance in the oral health setting is module 5 of the online curriculum, *Special Care: A Health Professional's Guide to Serving Young Children with Special Health Care Needs*.

Contractors

Many community programs and organizations choose to use contractors rather than employee staff. The *Quality Assurance Tool* located in Appendix D may be useful for contract development by community, public health and private programs.

A community program or a Local Health Jurisdiction (LHJ) may announce a *Request for Proposal* or a request to contract for services. A copy of all contracts or a *Memorandum of Understanding* (MOU) must be on file in the LHJ and accessible to the State of Washington Department of Health. Refer to Appendix B for samples of MOUs.

All contractors are required to read the *Washington State Dental Sealant and Fluoride Varnish Program Guidelines* and complete calibration and program training. To assure the quality of the program, contractors must follow all policies, protocols, and procedures. When using contractors, plan two unscheduled quality assurance visits to school sites during the year. Review new contractors more frequently and include a chart review of at least ten randomly selected charts. Be sure contractors maintain all required information.

Volunteers

Volunteers may fill a variety of roles in a school-based dental sealant program. Credentialed dental professionals can provide the clinical skills to conduct assessments, apply dental sealants and varnish. Non-clinical volunteers may be used in coordination and administrative positions. [Seal America](#) covers the pros and cons of using volunteers in a school-based program. Volunteers are required to read the *Washington State Dental Sealant and Fluoride Varnish Program Guidelines* and complete calibration and program training to assure quality control.

Malpractice & Liability Coverage

Having an active malpractice insurance policy is highly recommended and advised. Liability insurance from an employer or agency may not provide coverage in a school based setting. Check with your insurance provider to clarify coverage in a school-based setting. It is the responsibility of the individual provider to determine if liability or malpractice insurance is required by the school district or LHJ as part of the Memorandum of Understanding.

Retired health care providers may be eligible for liability malpractice insurance through [RCW 43.70.470](#).

For more information, visit the Volunteers/Retired Provider Program:

www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/RetiredMedicalWorker.aspx



For school safety and quality assurance, all contractors are required to read the [Washington State Dental Sealant and Fluoride Varnish Program Guidelines](#).

CHAPTER 5

Equipment, Supplies, and Infection Control

Creating an effective portable dental environment requires attention to supplies, materials, and infection control. Equipment must be safe, reliable, and operate effectively. Select portable dental equipment that is compact, lightweight, easy to fold, and has wheels for transport. The exact equipment design depends upon the type and size of the program, the number and types of providers, and the ages and special needs of the student/patients.

Portable Dental Units

The unit should contain High-Velocity Evacuation (HVE) and an air/water syringe with a self-contained water source. Low volume vacuums in most of the portable units are not sufficient to maintain a dry field. Optional equipment may include low volume vacuum, high- and low-speed handpiece attachments. Additional air-dryer attachments can be ordered with some equipment to minimize moisture that can develop in the air lines. Vacuum content bottles can be ordered in larger sizes to decrease the number of times they must be emptied or refilled during a working day. Large programs, or programs that wish to include restorative services, may want dental units with high and low-speed attachments as well as high and low-volume vacuum systems. Some types of portable dental units cannot operate handpieces and vacuum simultaneously.

Research the market before purchasing portable equipment. Check with manufactures as portable equipment is continuously modernized. Network with other school-based dental programs or the advisory group for advice on what equipment is used in successful programs. Consideration should be given to ergonomics, size, weight, cost and ease of mobility.

Sealant Program Equipment

- Dental unit with high-velocity evacuation
- Air compressor
- Water unit
- Patient chair, operator and assistant stools
- Light
- Ultrasonic cleaner
- Autoclave sterilizer
- Visible light curing light unit(s), light meter
- Fans

Sealant Program Supplies

The supplies for each school dental sealant program will vary depending on the program administrator and staff preferences. Purchase and stock an adequate quantity of supplies to maintain appropriate infection control measures for each day.

- Isolation aids to keep the field dry may include roll clamps or holders, isolation systems (*Isolite*), vacuum mirrors, dri-angles and any disposable mouth props needed for proper isolation
- Reusable mirrors or disposable mirrors (depends upon sterilization availability)
- Disposable Applicator Tips
- Dycal or perio probe type instrument (to apply or remove air bubbles)
- Explorers are only recommended to check sealant retention

For a complete list of sealant supplies, refer to the *Recommended Sealant Supply List* in Appendix G, and Seal America: www.mchoralhealth.org/seal/step4.html

Fluoride Varnish Program Supplies

More information about fluoride supplies is listed in Chapter 11. A suggested supply list for fluoride varnish programs is available in Appendix H.

Mobile-Portable Dental Manual

This manual provides an overview of school-based program planning, mobile systems, portable equipment, hybrid systems, and evaluation to measure effectiveness and outcomes. The manual can be found at:

www.mobile-portabledentalmanual.com/index.html

Sterilization

Ultrasonic cleaner, autoclave, and a broad-spectrum disinfectant are basic tools needed for a portable school-based program. Test all autoclaves (steam/chemical/vapor) weekly with a biological indicator and maintain a record log.

Infection Control

Follow all Occupational Safety & Health Administration (OSHA), Washington Industrial Safety and Health Act (WISHA), [Bloodborne Pathogens](#) and infection control requirements. Washington State WAC 246-817-601 through 246-817-630 covers infection control in a dental setting. Review the Centers for Disease Control and Prevention (CDC) publication *Guidelines for Infection Control in Dental Health-Care Settings*. Additionally, Organization for Safety, Asepsis, and Prevention (OSAP) offers an *Infection Control Checklist for Dental Settings Using Mobile Vans or Portable Dental Equipment* and a site assessment tool.

Light Curing Units

Test curing lights for wavelength and intensity monthly. Using the manufacturer's instructions for output and intensity with a meter designed for that purpose. Use a dental product supplier for testing and repair, if needed. Light meters are available for purchase through a dental supply company.

Use and Maintenance of Equipment

All providers should be trained and current on the use, maintenance, and transportation of the portable dental equipment. Read all instructions and repair manuals. Develop maintenance schedules and follow them. Keep telephone numbers of manufacturers easily accessible in case problems arise. Manufacturers can be supportive by providing technical assistance to repair equipment over the telephone. If the provider or the manufacturer cannot correct the problem, a local dental equipment supplier may be able to help. Arrangements for transporting equipment may vary for each location and program.

CHAPTER 6

Policies, Procedures, and Data Collection Forms

A school-based sealant and/or fluoride varnish program must have a written set of policies, procedures, and protocols established as well as a sound method of collecting data. These should reflect the local health jurisdiction standards and any legal parameters for dental records, consent forms, billing procedures, and the use of volunteers. Each community, particularly each school district, is quite autonomous regarding procedures in schools. Review and update the cooperating school's policies, procedures, and protocols annually. Decide what data to collect as you plan the program, as good program evaluation depends on the initial planning process.

Program Forms and Student Records

Develop forms reflecting the specific needs of the community and program. Students' records are legal records and must follow [RCW Chapter 70.02](#) for Medical Records rules, Health Information Privacy ([HIPPA](#)) and Family Educational Rights and Privacy Act Regulations ([FERPA](#)). A legal review of all program forms is advisable to assure that the program is operating within the legal parameters.

Consent Forms

The **Health Insurance Portability and Accountability Act (HIPAA)** require patients to be informed of their rights concerning confidentiality of protected health information. To comply with this act, school-based dental sealant programs should distribute HIPAA forms along with parental consent forms. If a local health department or another agency that offers other clinical services is operating the school-based dental sealant program, a HIPAA form will probably already have been developed.

The **Family Educational Rights and Privacy Act Regulations (FERPA)** require educational agencies and institutions that receive funding from the U.S. Department of Education to protect the privacy of parents and students by controlling access to, and release of, information held in students' educational records. Dental sealant program staff will need to determine if the records of students receiving dental sealants are considered educational records governed by FERPA. If students' school health records are considered part of their educational records, a consent form allowing dental sealant staff to release the dental record to the student's dental home or to another health care professional will need a parent signature.¹⁶

Sample Forms

Seal America offers the following sample forms:

- [Future Smiles School Sealant Program](#)
- [Dental Program at School](#)
- [Dental Sealants at School](#)
- [Free Dental Decay Prevention Program](#)

Informed Consent

Providing preventative services requires informed consent. Provide informed consent forms in the languages used in the local community. Make certain that consent forms are complete including parent or caregiver signatures. To improve consent form return rates, send letters in languages appropriate for the population targeted.

Collect a medical history on each student, with date and signature of consenting parent or caregiver. Follow-up documented medical conditions with parent or caregiver or other health care provider. Identify records of students with compromising conditions. Train each provider to review medical histories and sign after review. Be sure all medical records are complete and signed/dated by both the examiner and provider.

¹⁶ Seal America, 2011. At www.mchoralhealth.org/seal/step6.html

Document the assessment clearly in the initial assessment section of the student/patient record. Include a clearly written treatment plan based on the assessment in the student/patient record. Clearly record all written comments such as behavior of the child or reason for any incomplete assessments.

Student/patient records must be immediately available for use when the student is receiving care. When not in use, keep all records in a secure area. Perform a record review for accuracy and completeness at the end of each school year or at another appropriate time. Include a place on the record to collect demographic information that will allow for patient identification and for gender and race designations.

Billing Information Form

Collect all pertinent information for accurate program billing. Needed billing information may vary among different insurance or reimbursement programs. Consider the billing requirements for private insurance and Medicaid when developing program forms. Revisit Chapter 3 for additional details on Medicaid coverage and reimbursement.

Collection of Assessment Data

Data collection methods vary depending on program size, resources available, and years in operation. Date and document all data carefully for accurate recording and reporting. Data may be entered directly into computer program using specialized software or as simple as a Microsoft Access or Excel spreadsheet. If data is tabulated by hand, it may be entered into a report form at a later date.

Calibrate all providers in the use of data forms so consistent information is collected. Consult with individuals trained in statistical analysis and Medicaid billing before program implementation to assure that the program records the appropriate data in the most useful way. LHJs holding contracts with the Washington State Department of Health, Oral Health Program must follow all contract-reporting requirements. For grant funded programs, make certain all grant reporting requirements are attainable. Professional contractors working with grant funding or LHJ's will need to report data to both the LHJ and the Washington State Department of Health.

State Data Reporting

SHB 1309 requires dental hygienists performing services in the schools or senior centers to submit quarterly data to the Department of Health. The data is required for submittal on Department of Health approved forms or spreadsheets until October 1, 2013.

The Dental Hygiene Services – School Report Forms are located on the Department of Health webpage under the heading Dental Hygiene Services located at: www.doh.wa.gov/LicensesPermitsandCertificates/ProfessionsNewReneworUpdate/DentalHygienist/ApplicationsandForms.aspx

Dental hygienists providing services in school-based programs must fully complete the School Report Form. Incomplete forms will be returned to the sender. Without complete information, the department cannot capture accurate data as required by the legislature. If you have any questions, contact the Health Systems Quality Assurance Offices at 360-236-4865.

Data Collection

There are two kinds of data collection: **quantitative** and **qualitative**.

Quantitative data focuses on the following areas: consent rates, participation rates, oral health status, dental treatment referral rates, and follow-up status of referred children. All licensed dental hygienists working in a school setting must collect the following data to assist in program evaluation:

- Date of Service
- County
- Name and location of school
- Child's age
- Reimbursement: Medicaid, private Insurance, school fund, cash, grant, pro-bono

- Services: assessment, oral health education, prophylaxis, fluoride varnish, sealants, and sealant retention check
- Number of sealants applied
- If the student has a dentist
- Estimated percent of returned permission slips
- Number of sealants to 1st permanent molars in 2nd graders
- Number of sealants to 2nd permanent molars in 6th graders
- Applied sealants to all eligible students regardless of ability to pay
- Name of school and percent of students on free and reduced-price meals program
- Program coordinated and reported to local health jurisdiction or local oral health coalition

Qualitative data collection uses interviews, surveys, focus groups, and group discussions from schools, communities, parents, students, staff, or other participants in the sealant and/or fluoride varnish programs. Simple surveys or even follow-up phone calls to key informants help assess program approval in your community.

Sealant and/or fluoride varnish programs are complex and involve many details. Avoid unseen problems by using forms and checklists to operate a program effectively. Checklists may include school contacts, program activities, forms review, supply/equipment inventory, and other information. They provide a quick, easy way to monitor programs.

Data Collection Software

Different software is available for sealant reporting and program assessment (Epi-Info, SEALS, Excel, etc.). However, there is no requirement for using any of them specifically. The only requirement is to send the sealant data electronically.

For more information on The Centers for Disease Control and Prevention (CDC) Sealant Efficiency Assessment for Locals and States (SEALS), visit: www.cdc.gov/OralHealth/state_programs/infrastructure/seals.htm



To improve consent form return rates, send all letters and decay prevention materials in the languages used by the parents or caregivers.

CHAPTER 7

Scheduling Schools and Sites

School Board Approval

In most school districts the superintendent makes the decisions to allow health programs into the school setting. It is important to meet with the school district superintendent or administration staff to discuss the program and to establish cooperation. In some school districts this may be a health services lead or a school nurse. In some cases the superintendent may approve the program but may leave the final decision for implementation to the individual school principal.

Meeting with School Leadership and Staff

Before scheduling a school-based sealant and/or fluoride varnish program for the first time, it is important to meet with the school principal to gaining acceptance for the program. In addition to the school principal, there may be directors of student services or special services that will support the program with the school staff. School staff includes the school nurse, secretary, teachers, and parent volunteers.

The school community must weigh the value of a dental sealant and/or fluoride varnish program against the value of time spent in the classroom or in after-school activities. Since the program will be competing with other important programs for time and space, it is essential to establish an overall philosophy of the importance of providing a preventive program at their school.

If this is your initial relationship with school personnel, focus the first meeting on the benefits of dental sealants and fluoride varnish as prevention measures. Convince the audience that the program is worth the time in the school day. Emphasize the long-term value and cost-benefits of a child with healthy teeth. Help them understand the costly relationship between oral health and learning, missed days from school, and long-term costs from surgical or reparative therapies to dental related problems.

Provide the school personnel with educational materials including the [Washington State 2010 Smile Survey Fact Sheet](#), [Oral Health and Learning](#), and [Tooth Tutor Fact Sheet](#). Show a video about sealant and/or fluoride varnish programs. Offer to provide a short educational presentation on preventing dental caries and gum disease to the students.

Document all information or decisions made during the contacts with the principal or other staff members. To avoid potential confusion, send a follow-up letter to the principal or support members summarizing key points (dates and times, room locations, etc.).

Schedule Program Service Dates

School operating hours vary. Record school specific information; include recess, lunch times, and any other activities that may influence the school-based program efficiency. Find out if there are any blocked times when students are not available such as math or reading sessions. Check out the classroom schedule to determine where students will be (music, P.E., arts, etc.).

Agree and document the dates for the sealant and/or fluoride varnish program. Make sure all pertinent school personnel agree on the scheduled dates. Document times and dates for classroom presentations and application of the sealant and/or fluoride varnish.

Consent Forms

Sealant and/or fluoride varnish programs are difficult to implement successfully unless school personnel are cooperative. The teacher's support and enthusiasm is critical and very important since they can motivate students to return consent forms. Obtaining parent or caregiver consent is also a critical component in the operation of an

effective sealant and/or fluoride varnish program. Agree and document the dates that consent forms will be distributed and collected. Confirm these dates with classroom teachers so they can support and encourage children to meet the deadline. The use of classroom rewards (not sweets) can enhance the rate of return. Have teachers distribute rewards when consent forms are returned. Celebrate the success of every classroom that returns 100 percent of consent forms with an activity like providing supplies for a popcorn party for the classroom. Collect forms far enough in advance to prepare student records, review health histories, and conduct a follow-up. Remember, consent forms and dental records are confidential and should be handled accordingly.

Calculate Number of Students Program Will Serve

Obtain the number of classes to be involved in the program. If class lists are not available, compare the number of positive consent forms returned with the total enrollment of your target grades or school. Newly established programs can average sealants for 10 to 15 children per team each school day. Efficiently managed or experienced teams may average 15 to 18 students. Experienced school-based programs find the higher the free and reduced lunch rate, the higher the rate of program participation.

Estimate the total number of positive consents, divide this number by 18 if an experienced team will be providing the services or by 13 if a newly established team will be providing the services. The result will be the estimated number of days it will take you to complete each school. After the first year of the program, use the previous year's participation data to help estimate the time needed in each school.

For fluoride varnish programs a screening is needed to determine if the student has a moderate to high risk for dental caries. A program with prescreened students may be able to see approximately 60–75 students per day. Plan to schedule a follow up visit in 3–6 months for a second fluoride varnish application and a sealant retention check. While not all children will get two applications, many will. You may need to plan three or more visits to maximize the number of children that receive the minimum two applications of varnish.

Program Space

Look at the physical space where the program will operate. Picture your portable equipment set up in this area. Consider what adjustments the program or the school may need to make. The space should be approximately 10 feet by 14 feet per operatory, have adequate electrical outlets and voltage, good lighting, access to water, be well-ventilated and have handicap accessibility. Auditorium stages, gymnasium corners, large hallways, locker rooms, and vacant classrooms are the usual locations for sealant and fluoride varnish programs. Communicate this information to program staff so they know where to set up the equipment.

Send reminders and a confirmation of when the equipment will arrive, location of the equipment, and the time staff will set up the equipment. Ask for copies of class lists of those grades involved in the program. Verify there are no conflicting activities, such as assemblies, field trips, achievement tests, plays, etc., scheduled for the days the sealant program will operate. Confirm with school personnel that you have permission to retrieve students from classrooms.

Ways to Increase Program Participation

- Send consent forms out at the beginning of the year or send a program reminder.
- Student incentives (such as stickers, pencils, etc.) are effective ways to increase participation.
- Provide informational brochures about sealants and caries prevention attached to consent forms.
- Schedule schools with poor participation rates early in the school year. Schools completed in the first half of the school year tend to have higher participation rates.
- Reward the teacher; the teachers' enthusiasm greatly affects participation.
- Send messages to parent or caregivers on the school web site, school calendar, e-mail, newsletter, lunch menu, and through parent-teacher meeting reminders.

- Phone calls to parent or caregivers of non-participants with a follow-up mailing of a second form greatly improve participation.
- The participation rate of high-risk children increases when all students return a consent form (positive or negative).

Provide a brief, in class, evidence-based oral health presentation to students using the same provider that places the sealant or varnish. Following this with a question and answer session will result in less anxiety for the children.

When developing parent handouts, the parent letters located in the Tooth Tutor and Facts Sheets for Children with Special Health Care Needs may be useful tools. These can be found on the Washington State Department of Health website and in the useful links section of these guidelines.



It is essential to establish an overall philosophy of the importance of providing a preventive program at their school.

CHAPTER 8

Prepare for Implementation

The efficiency of the program is highly dependent upon the preparation completed prior to the arrival of the clinical staff at the school. Attention to the preparation details in Chapter 7 will make the implementation process much smoother. With careful advanced planning, school personnel are aware of scheduled dates, understands how the program will operate in the school setting, and any duties required of them. Collect consent forms, prepare student dental records, and complete all personnel training prior to the first implementation date.

Logistics

Arrive at the school early enough to set up equipment or van. All equipment set-up and breakdown, sterilization, instrument tray preparation, record keeping and paperwork should occur before or after school hours so that the six-hour school day is available for treatment.

Emergency and Hazard Preparedness

Review both school and portable work-site emergency procedures before beginning work at any site. Make sure accident and injury report forms and emergency phone numbers are on site and easy to locate. Store the on-site emergency kit in a central location known to all staff. Each portable work site should have access to a fire extinguisher. Check the building and determine the location of the fire extinguisher, the Automated External Defibrillator (AED) unit and emergency eye wash station (if present). Ensure each member of the oral health team is aware of the school site fire escape plan. Exit plans are located in a prominent place, usually in the hallway. For additional information, visit the Department of Health's [Emergency Preparedness Resource Guide](#).

Label and store all hazardous chemicals, according to manufacturer's directions and [OSHA/WISHA](#) guidelines. Train personnel in the use and storage of hazardous chemicals. Keep emergency procedure instructions in case of injury or inappropriate exposure to these chemicals on hand. Keep an emergency procedure guide on-site, along with the [Material Safety Data Sheets](#) (MSDS).

Organize Equipment and Supplies

Pack equipment and supplies so they can be unpacked and transformed into temporary dental operatories quickly. Locate electrical outlets and determine the best location for equipment. Create separate dental treatment and sterilization areas. The purchase of a small sturdy folding table for the sterilization area and supplies is advisable. Reserve an area for extra supplies like a back-up air compressor and empty equipment bags and containers. Store extra supplies and equipment in an accessible area away from the treatment area. Bring enough supplies for one week of operation. Select a team member to be responsible for stocking and maintaining supplies. Stock all the supplies necessary to complete work on a child. Store supplies near the patient chair and unit so everything is within easy reach of the provider and assistant. Storage containers used to transport supplies can double as tables. When using a four-handed technique, the containers behind the assistant hold prepared patient trays, hand wipes, toothbrushes, wraps for the dental lights, disposable sunglasses for eye protection, plastic bags for the toothbrushes, and any extra supplies. A storage container by the operator holds gloves, masks, and hand wipes. Place a container nearby for used instruments.

Locate the sterilization area close to the treatment area. Have disinfectant and containers with rinse water, autoclave bags, towels, and gloves available. Reduce the noise during operation as much as possible by using the padded carrying case to muffle the noise of the compressor.

While staff is preparing the equipment, check for any last minute consent forms, review the health histories and prepare student dental records.

Screening and Selecting Children

Each program completes a dental screening differently. Some programs complete the dental screening days or weeks in advance of the program so program administrators know how many children need sealants and/or fluoride varnish. Other programs complete the dental screening and placement/application during one school visit.

Selecting the Grades

Second and sixth grade are the most effective years to apply sealants, as these children are the most likely to have newly erupted permanent molars. However, the eruption time of the second molar is quite variable, erupting between sixth and eighth grade, with females preceding males and African-Americans preceding whites. Keep in mind middle school aged children have individual class schedules so scheduling can be a challenge.³

Below is a table that shows the *Availability for Sealant Application of Occlusal Surfaces of First and Second Permanent Molar Teeth, According to Grade Level, Ohio 1987–88*.

This includes the percentage of students with all four occlusal surfaces sufficiently erupted* for sealant application and with no occlusal surfaces sufficiently erupted.

Grade Level	First Permanent Molars		Second Permanent Molars	
	All Four %	None %	All Four %	None %
1	57.2	18.8		
2	88.5	1.8		
3	96.8	0		
6			23.6	37.6
7			55.5	11.8
8			75.8	3.6

*"Sufficiently erupted" means that the occlusal surface is completely exposed and clear of gingival tissue, but the term does not indicate eruption status of buccal and lingual surfaces with pits and fissures, which can contribute to overall caries levels.³

Source: Adapted from Kuthy, R.A., Ashton, J.J. 1989. Eruption pattern of permanent molars: Implications for school-based dental sealant programs. *Journal of Public Health Dentistry*, 49(1):7–14.

Sample Assessment

Send a staff member or volunteer to the classroom shortly after school begins. Briefly explain to the students and teachers how the program will operate. Call five to seven students with a positive consent form, and escort to the evaluation area.

Line the children up for screening by the dentist or hygienist. Address each child by first and last name to assure accurate recording of screening assessment on the correct dental record. The dental record contains all pre-recorded demographic information, including the student/patient name.

Use a portable dental chair with a fresh headrest (paper towel) or seat the child in a regular chair for the assessment. During the screening, the dentist or hygienist calls aloud the results, including which teeth need sealants and/or a fluoride varnish application. Record which teeth and/or surfaces are decayed, missing, or filled on the dental record.

³ Seal America. 2011. At <http://www.mchoralhealth.org/seal/>

Student Assessment Information

- Record assessment/evaluation date
- Assess whether a sealant is needed on 1st or 2nd Permanent molars
- Assess if the child is at moderate to high risk for caries – for fluoride varnish application
- Assess if the child is in urgent need for a dental referral
- Deposit all contaminated instruments into holding containers after each assessment. Dispose of gloves and any disposable mouth mirrors into a trash receptacle. Deposit soiled explorers (if used) in one container and metal mirrors in a separate container. This saves time in sorting during the sterilization process, and minimizes the chance of injury from exposure to sharp explorers.

As soon as assessments/evaluations are completed, the dentist or hygienist signs each record. Organize records by classroom; sort out children who do not need sealants and/or fluoride varnish. The staff or volunteer who accompanied the children from their classroom can hand out rewards (i.e., sticker) for participating in the program and maintain “crowd control”.

Organization

Teamwork is important for school-based dental sealant and fluoride varnish programs. Organization and systematic student/patient flow contribute greatly to program efficiency. Each team can have one child in the chair and one child waiting. Give the child who is waiting a toothbrush to brush his/her teeth. This provides an opportunity for the child to watch the procedure and minimize any anxiety. Organize the charts so that as soon as the student’s sealants are complete he/she can return to the classroom and send another child to the area. If the program is sending home toothbrushes, have the student place them in their back pack or ask the teacher to hand them out at the end of the day.

There are many methods used for student assessments and screening. Working with a professional advisory group can help you develop a method that works for your program.



CHAPTER 9

Sealant Guidelines & Placement Technique¹⁷

Sealants represent a physical barrier that inhibits food particles from collecting in pits and fissures and/or reaching microorganisms already present in the fissure system. Sealants are placed either to prevent the development of a caries lesion in an at-risk surface, or to arrest an existing lesion.¹⁸

Techniques for assessing teeth in school-based programs depend on the needs of the high-risk population and the resources available. Visual screening assessment is an effective tool for identifying teeth in 'at-risk' individuals. Screen each student for sealant need. Record teeth needing sealants on the treatment plan. If a sealant cannot be placed, note the reason on the student/patient record.

Sealant Focus

Permanent teeth most likely to experience pit and fissure caries are first and second permanent molars. Most school sealant programs, therefore, target these teeth.

Most programs target second graders for first permanent molars and sixth graders for sealing second permanent molars. Recheck sealants at a yearly recall, and reapply if necessary.

Tooth Selection

A visual assessment using a good light is sufficient to detect surface cavitation and/or other signs of dentinal involvement prior to sealant placement. First, remove any debris from the pits and fissures. Dry the teeth with cotton rolls, gauze, or compressed air when available.

Explorers

The use of explorers is not necessary for the detection of carious lesions and the forceful use of the explorer on a noncavitated, subsurface lesion can easily damage the tooth. The sharp tip of an explorer can produce irreversible traumatic defects by fracturing and breaking down the intact surface layer of enamel. As the explorer is forced into the demineralized zones, the intact surface layer is essentially destroyed and cariogenic bacteria could be forced into the depth of the lesion. This effect may eliminate the opportunity for arresting or reversing the carious process.

Use explorer to confirm cavitation only when in doubt, not routinely. The explorer tip can be placed in contact with the tooth surface and moved very gently in the area of interest to see if a discontinuity or break is present. Once the tooth is sealed, an explorer can be used to check the sealant.

Noncavitated lesions in pits and fissures may appear as a white/yellow/brown discoloration, not consistent with exogenous stain, which may be limited to the confines of the pits and fissures or extending from the pit and fissure system.

Cavitated lesions appear as a discontinuity or break in the surface due to loss of tooth surface. The break can be limited to enamel or can expose dentin.

¹⁷ Adapted from Ohio Department of Health (2009). School-based Dental Sealant Program Manual.

¹⁸ Fontana, M. et al. Techniques for assessing tooth surfaces in school-based sealant programs. *American Dental Association*. 2010. Jul;141(7):854-60.

Based on recommendations of expert panels from the ADA and the CDC, sealant programs should seal both **sound** and **noncavitated** pit-and-fissure surfaces of first and second permanent molars. In unusual instances where the clinician detects one or more **noncavitated** lesions in pits and fissures of premolars, primary second molars, or permanent maxillary incisors, those teeth should be selected for sealant application and their **sound** counterparts may be sealed as well.

Caries detection devices and technologies (e.g., DIAGNOdent) are not required to determine the need for sealant placement. The ADA and CDC found these technologies unnecessary due to cost, misuse, and misclassified teeth incorrectly precluded from sealant placement.

Assessing Occlusal Surfaces

Sound Enamel



Early Noncavitated Caries



Overt Noncavitated Caries



Overt Noncavitated Caries

(This noncavitated carious lesion appears as a sealant.)



Cavitation



Cavitation



Carious lesions progress from microscopic changes at the tooth surface, into stages of increasing progression. At each stage, the probability of detecting the lesion increases.¹⁸



For additional views of noncavitated lesions, see The American Dental Association's chair side guide: [Use of Pit and Fissure Sealants: Evidence-Based Clinical Recommendation](#)

Sealant Material

A number of sealant materials are commercially available. No one product is clearly superior to all others. There are, however, considerations that narrow the choice of sealant materials acceptable for use in school-based dental programs. [Seal America](#) provides a useful overview of the attributes of sealant materials that are appropriate for use in school-based programs. The Washington State Dental Sealant and Fluoride Varnish Program Guidelines recommend sealants that meet the following parameters:

- Resin-based material, as opposed to glass ionomer.
- Traditional moisture-free, acid-etch application technique (as described in the next section).

Therefore, it is recommended that school-based sealant programs not use:

- Sealants bonded with a self-etch adhesive (e.g., ClinPro Adper Prompt LPop)
- Hydrophilic (wet technique) sealants (e.g., Embrace)

Sealants must quickly self-adjust through normal occlusion; therefore, programs need to use sealant materials with less than 10 percent filler by weight. Filled dental sealants are not usually used in school-based settings as they require an occlusal adjustment, adding time, equipment cost and handpiece sterilization between students.

Clear, Tinted, or Opaque

Use colored or opaque sealants for school-based programs. Clear sealants are difficult to detect on follow-up retention checks.

Bisphenol A (BPA)

Evidence suggests that patients are not at risk for exposure to [Bisphenol A \(BPA\)](#)¹⁹ from the use of dental sealants. Clinicians can choose to use a BPA free product.

Resin-based Sealant Material

See Appendix E for a table of major resin-based sealant products and their characteristics.

Application Technique

School-based sealant programs must use techniques that assure dry tooth surfaces at critical points during the procedure. [Seal America](#) describes sealant application techniques. The basic technique for sealant application is as follows:

- Wear non-latex gloves (to protect those who may be allergic to latex).
- Wear safety glasses (recommended for staff and students)
- Avoid etchant (phosphoric acid) contact with eyes, skin or oral soft tissues.
- Magnification (2x–4x) can be used, but is not required due to insufficient evidence on its effect in assessing cavitation.

¹⁹ Azarpazhooh, A., Main, P.A. Is There a Risk of Harm or Toxicity in the Placement of Pit and Fissure Sealant Materials? A Systematic Review. March 2008, Vol. 74, No. 2. At www.cda-adc.ca/jcda

Sealant Placement

Sealant Placement Steps

- Step 1.** Thoroughly clean teeth to be sealed
- Step 2.** Isolate the teeth
- Step 3.** Etch tooth surface
- Step 4.** Rinse and dry
- Step 5.** Place bonding agent (if used)
- Step 6.** Place sealant
- Step 7.** Light cure
- Step 8.** Remove oxygen-inhibited layer
- Step 9.** Inspect sealants for quality and retention

Step 1. Cleaning

Tooth surfaces need to be free of heavy plaque, food and debris. Clean teeth selected for sealants with a dry toothbrush. Thoroughly rinse with water and dry. Handpieces are not necessary for a school-based program.

Step 2. Isolation

Position the child's head to avoid salivary pooling on working side. Place cotton rolls, with or without cotton roll holders. You may supplement the cotton rolls with dry angle-type shields over the parotid duct openings opposite the upper first permanent molars (some programs also place these shields between the tongue and the lingual cotton roll). A small sized "Isolite" can enhance visibility and isolation, as can vacuum mirrors. Thoroughly dry the teeth with compressed air.

Step 3. Etching

Both liquid and gel etchants are acceptable. Delivery systems for bringing the etchant to the tooth varies with the product (e.g., syringe with disposable applicator tips, brushes, cotton pellets). Apply the etchant so it is in contact with each tooth for at least 20 seconds. Extend the etchant at least two millimeters up the cuspal inclines beyond the anticipated sealant margins. Include buccal pits and lingual fissures, if free of gingival contact.

Safety

If etchant inadvertently contacts skin or soft tissue, rinse immediately with water. Contact with the eye is unlikely with protective eyewear. However, in the unlikely event that etchant does contact the eye(s), immediately initiate the emergency eyewash procedure as follows:

Injured person should flush their eye(s) with eyewash solution or water. Use the buildings emergency eye wash station if available or an eyewash solution from the emergency kit. Follow manufactures instructions for the eye wash solution provided. Upon completion of the first bottle of eyewash, flush the injured person with the second bottle. It is best if eyewash is room temperature or slightly warm.

As each bottle is emptied, another member of the team should refill the bottle. Continue for 15 minutes. Have the injured person seek medical attention. After an emergency eyewash procedure, be sure to replenish supplies.

Step 4. Rinse and Dry

Thoroughly rinse to remove all etchant from surfaces. This should take at least 20 seconds. It is critical that saliva does not contact teeth. Use high velocity evacuation (HVE) to help keep tooth/teeth dry. Exchange wet cotton rolls for dry ones in a manner that does not contaminate etched surfaces with saliva. Another method is to suction wet cotton rolls or dry angles before placing dry cotton rolls and/or dry angle-type shields over the moist ones.

Drying

Check air/water syringe by blowing a jet of air onto glove or mirror. Watch for small droplets of water in the air/water syringe adjusting for dry air only. Dry the teeth until etched enamel appears frosty or chalky. Heavily fluorosed teeth (teeth that do not gain the frosty/chalky appearance) or contact saliva at any time must be re-etch for 15-20 seconds, rinsed, and dried.

Step 5. Bonding Agents (optional)

Check manufactures instructions to be sure the bonding agent is compatible with the sealant material. Place the bond once the tooth surface has been etched and thoroughly dried; apply a thin layer of bonding agent to the tooth. Spray a light blast of air across (not into) the tooth surface before the sealant material is applied. This step helps the sealant material flow into the deep fissures and helps bonding in areas of inadvertent moisture contamination, and improves sealant retention.

Research

Research on the placement of bonding agents or primers prior to sealant placement has shown improved retention rates, particularly in the buccal pits and lingual grooves. The use of a bonding agent, however, adds a step to the application process.³ An expert workgroup, convened by the Centers for Disease Control and Prevention to update school-based sealant program guidelines, determined that the use of bonding agents was a non-routine, supplementary technique among school-based sealant programs.²⁰

Step 6. Place Sealant

Follow the manufacturer's instructions for mixing sealant and delivering sealant material to the tooth surface, e.g., via syringe with disposable applicator tip or sponge-tipped applicator.

Basic Principles

Carefully flow sealant from one end of the fissure to the other to avoid air bubbles. Tease out any air bubbles that occur with an explorer tip or the applicator tool prior to curing. Do not overfill or underfill and do not cover the marginal ridges with sealant.

Tips

Seal the most posterior tooth first. If isolation can be maintained, wait 15 seconds after placement of light-cured sealant to allow resin to penetrate fissure and enamel pores before curing. Use of the applicator/delivery system that comes with the manufacturer's product is not required. If possible, programs may choose to purchase different or additional applicators than those supplied with the sealant product.

Step 7. Light Cure

Hold light tip as close to surface as possible without touching sealant material. Follow manufacturer's instructions for curing time, consider this the minimum. Manufacturer's instructions assume proper wavelength and intensity for each type of curing light. Check light with meter for output and intensity monthly.

³ Seal America. 2011. At <http://www.mchoralhealth.org/seal/>

²⁰ Gooch, et al. Preventing Dental Caries Through School-Based Sealant Programs. JADA, 2009; 140 (11):1356-1365.

Step 8. Remove Oxygen-inhibited Layer

To remove the oxygen-inhibited layer and reduce the possibility of unpolymerized bisphenol A (BPA) remaining on the tooth: *(from a sealant material that contains BPA, usually in trace amounts or as a byproduct)*

- Rinse sealed teeth for 30 seconds with water and HVE
- Use a mild abrasive, such as a fine pumice or toothpaste, on a cotton applicator
- Have student gargle with tepid water for 30 seconds and expectorate

Step 9. Inspect Sealants for Quality, Retention, and Occlusion

Inspect sealants for voids (bubbles) and complete coverage of pits and fissures. Attempt to dislodge the sealant with the explorer to ensure good retention. For incomplete coverage or voids, apply more sealant and cure if the tooth has not been contaminated. Otherwise, re-etch for at least 10 seconds, wash, dry, add additional sealant and cure.

Check sealant retention paying attention to problems related to placement technique, or materials used. For school-based sealant programs using sealant materials with less than ten percent filler, occlusal adjustment is not undertaken. Sealants are expected to self-adjust in a short time (one to two days).²¹

Allergy

A small percentage of the population is known to have allergy to acrylate resins, such as those used in sealants. Avoid use of this product on students with known acrylate allergies. In general, avoid contact of uncured sealant with skin, eyes and soft tissue. If uncured sealant inadvertently contacts skin, rinse immediately with soap and water. If uncured sealant contacts glove, remove it, wash with soap and water immediately and re-glove. If contact with eyes or prolonged contact with oral soft tissues, flush with large amounts of water. If irritation persists, consult a physician.

²¹ Adapted from Ohio Department of Health. (2009). School-based Dental Sealant Program Manual.

CHAPTER 10

Quality Assurance

Retention Checks

Retention checks can detect clinical problems related to application technique, equipment and/or dental materials. Short-term checks (within a few days or weeks) are situational and long-term checks (one year) are routine. Complete retention of all sealants is expected at short-term retention checks. Ninety (90%) percent or more of sealants should be retained at long-term retention checks.

Short-term

Short-term retention checks may be performed by a licensed clinician who did not place the sealants being checked. This may be a quality control check from the local health jurisdiction, sealant program clinical manager or an oral health coalition member. Use visual and tactile techniques within a few days or weeks of sealant placement for early interception of problems with the retention of dental sealants. A sample evaluation of 10–15 children per school is sufficient for a short-term retention check.

The most common triggers for short-term retention checks are licensed dental personnel who are new to the program and/or do not have a substantial positive track record and changes to clinical procedures (e.g., technique or materials). Short-term retention checks offer an opportunity to correct problems with sealant application techniques. It is most convenient for the program to conduct short-term retention checks before the team leaves a school, and replace missing sealants promptly; this is not always possible.

Long-term

Long-term retention checks are performed approximately one year after the initial placement of dental sealants. The examining clinician uses visual and occasional tactile techniques to check as many third and seventh graders who received sealants in the target grades (second and sixth) as possible. If sealants are not retained long-term, an improvement plan, including a time line, must be implemented to identify and correct the problem.

Selecting Existing Sealants for Repair or Replacement

Clinicians who evaluate long-term retention should use professional judgment when determining the need for repair or replacement of sealants placed by the program the previous year.

Clinicians should consider the following information:

- Defects in sealant material (e.g., bubbles) do not require repair unless underlying tooth surface is exposed by the defect.
- Catches in marginal areas do not require repair unless they expose non cleansable caries-prone areas of the fissure system.
- Although staining at the interface of sealant and enamel does not, of itself, indicate caries, it may suggest an area of micro leakage that could benefit from coverage with additional sealant material.
- Partially retained sealants need to be checked and repaired. If the remaining sealant can be dislodged, it requires the entire sealant to be replaced.

Troubleshooting

Common problems and possible causes found during sealant placement:

Common Problems	Possible Causes
Sealant will not polymerize (harden)	<ul style="list-style-type: none">• Sealant material is past the expiration date• Sealant was not at room temperature
Sealant sets up slowly	<ul style="list-style-type: none">• Salivary contamination• Improper curing time• Improper cleaning of the tooth• Improper etching time• Incomplete rinsing after etching
Sealant comes off when checked with an explorer	<ul style="list-style-type: none">• Salivary contamination• Improper curing time• Improper cleaning of the tooth• Improper etching time• Incomplete rinsing after etching
Bubbles are present in sealant surface	<ul style="list-style-type: none">• Brushing or dabbing sealant on tooth rather than allowing sealant to flow into grooves• Excessive mixing or stirring of sealant before placement
Excessive occlusal interference is present	<ul style="list-style-type: none">• Sealant is placed too thick• Excess material was not removed before curing



Fluoride Varnish Guidelines & Placement Technique

Introduction

Fluoride varnish is a thin coating of resin applied to the tooth surface to protect it from decay. The FDA classifies fluoride varnish in the category of “drugs and devices” that present minimal risk and is subject to the lowest level of regulation.

Background

Dental sealants and water fluoridation are best practices for individuals and communities in preventing dental caries.²² Dental sealants reduce more dental caries in the grooves of first and second permanent molars in children than fluoride varnish application,²³ but the number of studies supporting this evidence is very low.²⁴ Fluoride varnish offers additional opportunities toward improving the prevention and control of dental caries. Fluoride varnish alone may be more effective on pit and fissure caries than other fluoride products. Fluoride varnish is not to be confused as a replacement for dental sealants on the occlusal and buccal surfaces of permanent molars.

Fluoride varnish is a resin or synthetic base that contains a high concentration of fluoride and sets quickly on contact with teeth in the presence of saliva. Some fluoride remains on caries-free teeth as a temporary layer of calcium fluoride-like material on the enamel surface. The fluoride in the material releases when the pH drops in response to acid production and becomes available to remineralize enamel. This layer slowly disappears over the following months and needs repeated application of the varnish to maintain effectiveness as a primary prevention strategy. Fluoride varnish enhances enamel remineralization with the initial fluoride uptake in early carious lesions (white spots) until it is brushed or flaked off. The fluorhydroxyapatite formed overtime during the remineralization process in an initial caries lesion is more resistant to future demineralization. Therefore, the use of fluoride varnish and other highly concentrated fluorides, as a secondary prevention strategy, is most cost-effective when active, noncavitated, smooth surface caries are detectable.²⁵

Children with moderate or high-risk of dental caries may benefit from school-based varnish programs. Fluoride varnish is used in school-based programs for its safety, efficacy, and ease of application for children. Varnish delivers a higher concentration of fluoride than other professionally applied fluoride gels and foams; therefore it is applied in smaller amounts. Fluoride varnish application sometimes takes place in settings outside the dental office, unlike foams and gels. Due to the high concentration of fluoride, be sure not to exceed the recommended dosage. Care should be taken to ensure that the amount applied is within the manufacturer guidelines and within a safe dose for the age and weight of the child.

***Apply fluoride varnish to all teeth of moderate or high-risk children.
Multiple applications of fluoride varnish in a single year for children
at moderate or high risk is most effective.***

²² Gooch, B. et al. A Comparison of Selected Evidence Reviews and Recommendations on Interventions to Prevent Dental Caries, Oral and Pharyngeal Cancers, and Sports-Related Craniofacial Injuries, 2002; 23:55-80.

²³ Tagliaferro, E. et al. Occlusal caries prevention in high and low risk schoolchildren - A clinical trial. Am J Dent., 2011; 24(2):109-14.

²⁴ Hiiri, A. et al. Pit and fissure sealants versus fluoride varnishes for preventing dental decay in children and adolescents. Cochrane Database of Systematic Reviews 2010, Issue 3. Art. No.: CD003067.

²⁵ ASTDD Research Brief on Fluoride Varnish: An Evidence-Based Approach. 2007.
At <http://www.astdd.org/docs/FluorideVarnishPaperASTDDSept2007.pdf>

Authorized Health Professionals

In Washington, dental personnel working under the guidelines of WAC 246-814-020 and 246-815-260 may apply fluoride varnish in school settings. Medical personnel working under the delegation of a licensed physician with documentation of completion of a training program on fluoride varnish are also qualified. This may be a school nurse.

Fluoride Varnish Training

Smiles for Life, a [National Oral Health Curriculum](#) is available on-line for educators, individual physicians, physician assistants, nurse practitioners, students, and other clinicians to learn about oral health. This course focuses on early childhood dental caries and is appropriate for Head Start and Early Childhood Education Assistance Programs (ECEAP). Additionally, this course serves as a good review for dental professionals.

Smiles for Life – Module 6: Fluoride Varnish Training is acceptable for up to 2.5 prescribed credits by the American Academy of Family Physicians (AAFP). Of these credits, one conforms to the AAFP criteria for evidence-based CME clinical content. CME credit reflects two for one credit for only the EB CME portion until March 2012.

Additional information on fluoride varnish and oral health training for medical professionals is located on the Children’s Oral Health web site sponsored by the American Academy of Pediatrics:
<http://www.aap.org/oralhealth/EducationAndTraining.html>

Risk Assessment Forms

Risk assessment is part of a fluoride varnish program. Fluoride varnish is applied to all teeth of children with moderate or high-risk of dental decay. Dental caries is a multifactorial disease; therefore, more than one risk factor must be present to identify children at high risk for developing dental caries. Children with a low risk and who drink optimally fluoridated water or receive routine dental care in a dental office, are usually not candidates for a fluoride varnish program. Each program should use a caries-risk assessment form that works with the age appropriate population. The risk assessment form helps determine the type of treatment, intensity of treatment, and frequency for re-evaluation. Appendix F contains an American Academy of Pediatric Dentistry caries risk assessment tool.

Frequency of Application

The ADA (2006) recommends at least biannual applications at six-month intervals as effective in controlling or reducing dental caries in primary or permanent teeth for moderate or high-risk children. While one application of fluoride varnish may provide some benefit the majority of professionally applied fluoride studies demonstrate that at least two applications biannually, for at least two years, are necessary to demonstrate effective reductions in dental caries.²⁶

Scheduling

Plan to schedule fluoride varnish programs at least twice during the school year. While not all children will receive two applications, many will. You may need to plan three or more visit to maximize the number of students that receive at least two applications. Fluoride varnish programs can see approximately 60–75 students per day. If applicable, combine a sealant retention check at the follow up visit for a second fluoride varnish application. For more on scheduling, see Chapter 7 Scheduling School Sites.

Supplies and Equipment

Some fluoride varnish programs use portable dental chairs, but they are not necessary. For visibility, inexpensive penlights or small Maglights are good choices. If using a headlamp, be careful not to shine it directly into the child’s eyes. See Appendix H for a complete list of recommended supplies.

²⁶ Weintraub, J.A., et al. Fluoride varnish efficacy in preventing early childhood caries. *J Dent Res.* 2006;85(2):172-6.

Application Tools

Disposable mirrors work well for the assessment and fluoride varnish application. Select high quality disposable applicators that can bend during application. Using disposables eliminates the need for sterilization.

Fluoride Varnish

Most studies demonstrating effectiveness use a varnish containing 5 percent sodium fluoride as the active ingredient. Fluoride varnish comes in individual pre-measured doses and a larger 10 ml. multiple dose tube. Fluoride has a tendency to separate from the resin component in fluoride varnish. It is important to mix all types of fluoride varnish thoroughly, as recommended by the manufacturer before applying the varnish to the teeth.

Multiple dose tubes must be thoroughly massaged and individual doses stirred well to assure even distribution of the fluoride within the varnish medium. On average, 1–2 pea-sized drops equals about 0.3 ml. of varnish for children with 1 to 8 teeth. For children with more than 8 teeth, 2–3 small drops equals about 0.4 ml. Use a good quality disposable applicator that can bend during application.

Pre-Measured Unit Dosage²⁷

- | | |
|----------------------|--|
| 0.25ml dosage | Used to treat patients with primary dentition only.
Used to treat any patient requiring limited tooth surface or cavity area coverage. |
| 0.40ml dosage | Used to treat patients with mixed dentition who require extensive tooth surface or cavity area coverage. Not intended for primary dentition only. |
| 0.50ml dosage | Used to treat only patients with permanent dentition that requires extensive coverage. Not intended for primary dentition only. |

Placement Steps

The program assistant can instruct children to brush their teeth while waiting. Use this time for oral health education and review any missed areas of plaque. A professional cleaning is not necessary for fluoride varnish application to be effective. Remove obvious food and heavy plaque prior to a fluoride varnish application with a toothbrush. To prevent toothbrush contamination in a school setting, visit: [Recommended measures for hygienic tooth brushing in schools \(Centers for Disease Control and Prevention\)](#).

Position

Position the child so that you are able to dry off the teeth and paint on the varnish. For infants or toddlers, it may be easier to use the “knee to knee” posture and have the caretaker/assistant lower the child’s head into your lap. In a school setting this may be a student chair or portable equipment.

Application

Dry the teeth with 2 x 2 gauze sponges as the varnish is applied. The provider may dispense the well mixed varnish on the backside of the glove of the non-dominate hand for varnish application. This will save time by eliminating the “reaching time”. Use the applicator brush to paint a thin coating of fluoride varnish on all the tooth surfaces that have been dried with the 2 x 2 gauze sponge. Contact with saliva will harden the varnish.

Varnish is very sticky, avoid touching the lips or face with applicator. Applying petrolatum or lip balm to the lips prior to treatment is helpful. If varnish gets on the face or lips, try rubbing lightly with 2 x 2 gauze soaked with alcohol-based mouthwash. If varnish gets on the instruments or mirror, simply wipe off or remove with alcohol.

²⁷ 3M ESPE Clinpro White Varnish. Technical Product Profile. 2008 At: multimedia.3m.com

Post-Application Advice

The child may rinse with water immediately after the application being sure to spit out all excess material. Recommend a soft diet, avoiding sticky or hard food until the next day. Advise parent or caregivers that varnish is slightly yellow and may be visible for a few hours. Send home a handout requesting the parent or caregivers not resume brushing or flossing until the next day, to keep the varnish coating in contact with teeth for as long as possible. Let the parent or caregivers know when you will return to the school for follow-up applications. Fluoride varnish treatments are most effective if received at least twice a year. A single fluoride varnish treatment provides minimal protection.

Allergy

According to the ADA there are no confirmed allergic reactions to fluoride.²⁸ Though uncommon, allergic reactions can occur in individuals with a known sensitivity to colophony/rosin or pine nuts. Colophony is a contact sensitizer present in fluoride varnish and in many household products such as cosmetics, nail varnish, sticking plasters, and chewing gum, as well as in some dental materials. Fluoride varnish is contraindicated when ulcerative gingivitis and stomatitis is present and should not be applied on or near large open lesions.



A caries risk assessment and applying fluoride varnish at least twice during the school year are vital for successful programs.

²⁸ ADA Council on Scientific Affairs. Professionally Applied Topical Fluorides – Executive Summary of Evidence-Based Clinical Recommendations. May 2006. At <http://www.ada.org>

CHAPTER 12

Student Referral

Develop a Referral System

A referral system needs to be in place to assist families in obtaining needed dental treatment for their children. Determine the referral sources available in the community. Prepare a list of resources by neighborhood. Community health clinics, pediatric dentistry training programs, hospital dental programs, dental schools, local United Way agencies, and private practitioners are all options for referrals. For additional resources in your county, visit: Washington Information Network 2-1-1 at <http://www.win211.org/>.

Parent or Caregiver Letters

Send a letter home with each child who participates in the program. The letter informs the parent or caregiver of treatment provided and whether any obvious dental caries is present. Use the letter as a health promotion tool by explaining the importance of regular dental check-ups and provide a telephone number to call if the parent or caregiver has any questions. Mail a letter home to those students who have an immediate treatment need. To ensure a student receives follow-up treatment, a telephone call to the parent or caregivers may be useful.

Working with School Nurses

When a child has urgent dental needs (i.e., abscess, swelling, or infection) notify the school nurse or personnel whenever possible and arrange telephone calls to parent or caregivers. The goal is to assist families in finding appropriate dental care for their child. Provide the school nurse with a list of children who have obvious dental treatment needs. Often, they have contact with parent or caregiver regarding other health concerns and can include the need for dental care in their discussion with them. Provide the school nurse and school secretary with a list of dental resources available in the local area.

Tracking System

Develop a system to track the success of the program's referral component. Re-visit student referrals given at sealant retention checks or when returning for additional fluoride varnish applications. Document whether students received the necessary care within the year. Evaluate the impact of the program on increasing children's access to dental care and the success of various strategies for follow-up.

CHAPTER 13

Evaluate the Process and Outcomes

Quality Control

Evidence-based dentistry provides proof of the effectiveness of sealants and fluoride to prevent caries in school-age children. Program administrators should concentrate evaluation efforts on the quality of sealant placement, ability to apply varnish multiple times, acceptability and cost effectiveness of the program. Applying quality preventive strategies in a cost efficient manner is important to supporting the operation of a school-based program. Evaluation is a critical component of any program.

Sealant Retention

The quality of the dental sealants applied is measurable in one of two ways as listed in Chapter 10 Quality Assurance. Re-evaluate a sample of children who receive sealants within a few days or weeks of sealant application to ensure that the sealants are still intact and adequately cover surfaces. This form of evaluation is particularly effective for new providers as feedback concerning the quality of the sealants is immediate and any problems detected can be corrected quickly. The number of children evaluated and the regularity of the checks will vary among programs depending upon the results of previous long-term and short-term retention checks, staff turnover, and program protocols. Secondly, a long-term retention check of sealants must occur the next school year.

Evaluating the Program

Keep accurate records. Collect necessary data carefully for reporting. Look at your original program plan and evaluate whether you have reached your objectives. By continuing to evaluate the program, and making the needed changes, the future year's activities will improve.

Evaluation Components

- Population served is at high risk for dental caries
- Community participation and support of program is present for continuation
- Provider is adequately trained and follows guidelines
- Appropriate equipment and necessary supplies are available
- Policy and procedure protocols are updated annually
- Adequate data is collected
- Referral rates are monitored
- Community referral resources are developed
- Records are properly documented
- Sealant retention rates at one year are within acceptable limits
- Fluoride varnish applications occur multiple times yearly
- Participation rates are high
- Program is cost effective

APPENDIX A

Washington State Laws

Washington Administrative Code WAC 246-814-040

No agency filings affecting this section since 2003.

Training and the Provision of Services.

- (1) The “Washington State Department of Health sealant/fluoride varnish program guidelines” have been developed, maintained, and distributed by the Department of Health in partnership with the oral health community and health care practitioners. To obtain copies of the “guidelines” contact the Department of Health.
- (2) The Washington State Department of Health sealant/fluoride varnish program guidelines is designed to assist the local public health jurisdictions and oral health care communities in the planning, implementation, and evaluation of school dental sealant and fluoride varnish programs. Every school dental-based sealant and fluoride varnish program should design their program to provide, at minimum, for the following:
 - (a) Assessing and targeting the population.
 - (b) Establishing community capacity and infrastructure.
 - (c) Determining staffing needs and training.
 - (d) Securing equipment and supplies.
 - (e) Developing policies, procedures and data collection forms.
 - (f) Scheduling schools/sites.
 - (g) Preparing sites for implementation.
 - (h) Providing services.
 - (i) Evaluating the process and outcomes.
- (3) The Washington State Department of Health sealant/fluoride varnish program guidelines also provides the training required for dental hygienists and dental assistants providing services under this chapter. Applicants for endorsement must obtain training as contained in these specific guidelines, which can be met through any one of the following methods:
 - (a) Graduation from a dental assisting, dental hygiene or dental educational program, accredited by the American Dental Association, which has incorporated the Washington State Department of Health sealant/fluoride varnish program guidelines.
 - (b) Continuing education courses which teach the Washington State Department of Health sealant/fluoride varnish program guidelines.
 - (c) Individual training provided by a Washington licensed dentist, which has incorporated the Washington State Department of Health sealant/fluoride varnish program guidelines.



[Statutory Authority: [RCW 43.70.650](#). 02-21-128, § 246-814-040, filed 10/23/02, effective 11/23/02.]

Washington Administrative Code WAC 246-814-010

No agency filings affecting this section since 2003

Purpose.

The purpose of this chapter is to implement [RCW 18.29.220](#) and [18.32.226](#). These laws are intended to improve access to dental care for low-income, rural, and other at-risk children by enhancing the authority of dental hygienists and dental assistants to provide dental sealant and fluoride varnish treatments in school-based programs. The Department of Health encourages partnerships within geographical regions and among participants in the oral health care community in implementing this law.

[Statutory Authority: [RCW 43.70.650](#). 02-21-128, § 246-814-010, filed 10/23/02, effective 11/23/02.]



Washington Administrative Code WAC 246-814-020

No agency filings affecting this section since 2003

Practices authorized.

- (1) **Dental hygienists.** Solely for purposes of providing services under this chapter, dental hygienists holding endorsements under this chapter may assess by determining the need for (i.e., the absence of gross carious lesions and sealants) and acceptability of dental sealant and/or fluoride varnish treatment for children in school-based programs and may apply dental sealants and fluoride varnish treatments, without the supervision of a licensed dentist. This determination does not include or involve diagnosing conditions or constitute a dental examination.
- (2) **Dental assistants.** A dental assistant is currently defined by the Dental Quality Assurance Commission in [WAC 246-817-510](#) as an unlicensed person working under the close supervision of a licensed dentist. Solely for purposes of this chapter, authorized dental assistants may apply dental sealants and fluoride varnish treatments to children in school-based programs under the general supervision of a Washington state licensed dentist, as described in this chapter.
 - (a) *Close supervision* requires the licensed supervising dentist to first determine the need for and acceptability of dental sealant and fluoride varnish treatments, refer the treatment and the dentist must be in the treatment facility when the treatment is provided.
 - (b) *General supervision* requires the licensed supervising dentist to first determine the need for and acceptability of dental sealant and fluoride varnish treatments, refer the treatment and the dentist does not have to be in the treatment facility when the treatment is provided.
- (3) Dental assistants and their supervising dentists, as well as dental hygienists shall coordinate with local public health jurisdictions and local oral health coalitions prior to providing services under this chapter, consistent with [RCW 18.29.220](#) and [18.32.226](#).

[Statutory Authority: [RCW 43.70.650](#). 02-21-128, § 246-814-020, filed 10/23/02, effective 11/23/02.]



Washington Administrative Code

WAC 246-814-030

No agency filings affecting this section since 2003

Application process and documentation of training required to qualify for endorsement.

- (1) The Department of Health has issued endorsements to all dental hygienists holding valid licenses on or before April 19, 2001, the effective date of [RCW 18.29.220](#).
- (2) Dental hygienists licensed after April 19, 2001, must obtain an endorsement to provide services under this chapter. Applicants must meet the additional requirements in [RCW 18.29.220](#) and must submit the following to the department:
 - (a) Application for endorsement;
 - (b) Fee;
 - (c) Information of having a valid Washington state dental hygiene license for reference; and
 - (d) Proof of the completion of training that has incorporated the Washington State Department of Health sealant/fluoride varnish program guidelines as described in [WAC 246-814-040\(3\)](#).
- (3) Dental assistants employed by a Washington state licensed dentist on or before April 19, 2001, are not required to obtain an endorsement but may voluntarily do so without having to meet the additional requirements in [RCW 18.32.226](#).
- (4) Dental assistants employed by a Washington state licensed dentist for two hundred hours after April 19, 2001, must obtain an endorsement to provide services under this chapter. Applicants must meet the additional requirements in [RCW 18.32.226](#) and must submit the following to the department:
 - (a) Application for endorsement;
 - (b) Fee;
 - (c) Proof of two hundred hours of employment as a dental assistant by a Washington state licensed dentist that has included theoretical and clinical training in the application of dental sealants and fluoride varnish treatments, verified by a declaration provided by the licensed dentist who provided the training; and
 - (d) Proof of completion of training that has incorporated the Washington State Department of Health sealant/fluoride varnish program guidelines as described in [WAC 246-814-040\(3\)](#).
- (5) Dental assistants and their supervising dentists, as well as dental hygienists should use the Washington State Department of Health sealant/fluoride varnish guidelines described in [WAC 246-814-040](#) and other protocols that may be in place for the geographic region when coordinating with local public health jurisdictions. To assist the local public health jurisdictions and the practitioners in coordinating these services, a “letter of understanding” is recommended and would provide a means to address mutual concerns. It may include, but is not limited to:
 - (a) Data collection requirements;
 - (b) Delineation of responsibilities of the treatment providers and the local public health jurisdictions;
 - (c) Quality assurance mechanisms; and
 - (d) Communication with schools being served.
- (6) Dental assistants and their supervising dentists, as well as dental hygienists shall coordinate with the local oral health coalitions by participating in oral health coalition meetings that may be held in the geographical region.

[Statutory Authority: [RCW 43.70.650](#). 02-21-128, § 246-814-030, filed 10/23/02, effective 11/23/02.]



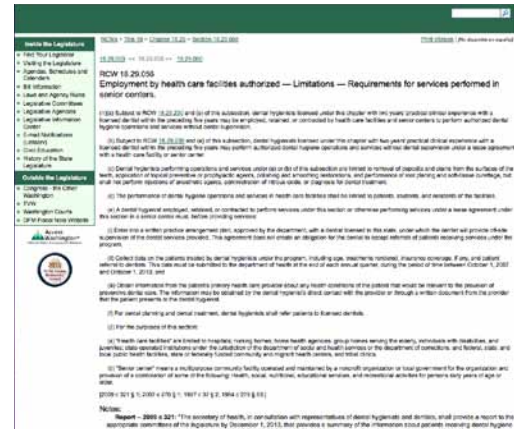
Revised Code of Washington RCW 18.29.056

Employment by health care facilities authorized — Limitations — Requirements for services performed in senior centers.

- (1) (a) Subject to [RCW 18.29.230](#) and (e) of this subsection, dental hygienists licensed under this chapter with two years' practical clinical experience with a licensed dentist within the preceding five years may be employed, retained, or contracted by health care facilities and senior centers to perform authorized dental hygiene operations and services without dental supervision.
- (b) Subject to [RCW 18.29.230](#) and (e) of this subsection, dental hygienists licensed under this chapter with two years' practical clinical experience with a licensed dentist within the preceding five years may perform authorized dental hygiene operations and services without dental supervision under a lease agreement with a health care facility or senior center.
- (c) Dental hygienists performing operations and services under (a) or (b) of this subsection are limited to removal of deposits and stains from the surfaces of the teeth, application of topical preventive or prophylactic agents, polishing and smoothing restorations, and performance of root planing and soft-tissue curettage, but shall not perform injections of anesthetic agents, administration of nitrous oxide, or diagnosis for dental treatment.
- (d) The performance of dental hygiene operations and services in health care facilities shall be limited to patients, students, and residents of the facilities.
- (e) A dental hygienist employed, retained, or contracted to perform services under this section or otherwise performing services under a lease agreement under this section in a senior center must, before providing services:
- (i) Enter into a written practice arrangement plan, approved by the department, with a dentist licensed in this state, under which the dentist will provide off-site supervision of the dental services provided. This agreement does not create an obligation for the dentist to accept referrals of patients receiving services under the program;
 - (ii) Collect data on the patients treated by dental hygienists under the program, including age, treatments rendered, insurance coverage, if any, and patient referral to dentists. This data must be submitted to the Department of Health at the end of each annual quarter, during the period of time between October 1, 2007, and October 1, 2013; and
 - (iii) Obtain information from the patient's primary health care provider about any health conditions of the patient that would be relevant to the provision of preventive dental care. The information may be obtained by the dental hygienist's direct contact with the provider or through a written document from the provider that the patient presents to the dental hygienist.
- (f) For dental planning and dental treatment, dental hygienists shall refer patients to licensed dentists.

(2) For the purposes of this section:

- (a) "Health care facilities" are limited to hospitals; nursing homes; home health agencies; group homes serving the elderly, individuals with disabilities, and juveniles; state-operated institutions under the jurisdiction of the department of social and health services or the department of corrections; and federal, state, and local public health facilities, state or federally funded community and migrant health centers, and tribal clinics.



(b) “Senior center” means a multipurpose community facility operated and maintained by a nonprofit organization or local government for the organization and provision of a combination of some of the following: Health, social, nutritional, educational services, and recreational activities for persons sixty years of age or older.

[2009 c 321 § 1; 2007 c 270 § 1; 1997 c 37 § 2; 1984 c 279 § 63.]

Notes:

Report — 2009 c 321: “The secretary of health, in consultation with representatives of dental hygienists and dentists, shall provide a report to the appropriate committees of the legislature by December 1, 2013, that provides a summary of the information about patients receiving dental hygiene services in senior centers that is collected under [RCW 18.29.056\(1\)\(e\)\(ii\)](#), and in community-based sealant programs carried out in schools under [RCW 18.29.220](#). This report must also include the following:

- (1) For patients receiving scaling and root planning [planing] in senior center practices, an evaluation of the patient’s need for pain control;
- (2) For community-based sealant programs in schools, the number of sealants applied; the teeth cleaning method selected for the patient; whether the patient was reevaluated at a recall appointment; and the need for reapplication of the sealant at the recall appointment; and
- (3) For patients receiving treatment in either the senior center practices or the community-based sealant programs in schools, the number of referred patients that are seen by a dentist; the lessons learned from these practices; and any unintended consequences or outcomes.” [2009 c 321 § 3.]

Effective date — 2009 c 321: “This act is necessary for the immediate preservation of the public peace, health, or safety, or support of the state government and its existing public institutions, and takes effect July 1, 2009.” [2009 c 321 § 4.]

Report — 2007 c 270: “The secretary of health, in consultation with representatives of dental hygienists and dentists, shall provide a report to the appropriate committees of the legislature by December 1, 2008, that:

- (1) Provides a summary of the information about patients receiving dental services in senior centers that is collected under [*RCW 18.29.056\(1\)\(c\)\(ii\)](#), and in community-based sealant programs carried out in schools under [RCW 18.29.220](#), and describing the dental health outcomes, including both effects on dental health and adverse incidents, if any, related to the services these patients receive under the programs; and
- (2) Makes recommendations, as appropriate, with regard to the services that could be appropriately provided by dental hygienists in senior centers and community-based sealant programs carried out in schools, and the effects on dental health of patients treated.” [2007 c 270 § 4.]

***Reviser’s note:** [RCW 18.29.056](#) was amended by 2009 c 321 § 1, changing subsection (1)(c) to subsection (1)(e).

Severability — 1984 c 279: See [RCW 18.130.901](#).

Revised Code of Washington

RCW 18.29.220

Community-based sealant programs in schools — Data collection.

For low-income, rural, and other at-risk populations and in coordination with local public health jurisdictions and local oral health coalitions, a dental hygienist licensed in this state may assess for and apply sealants and apply fluoride varnishes, and may remove deposits and stains from the surfaces of teeth in community-based sealant programs carried out in schools:

- (1) Without attending the department's school sealant endorsement program if the dental hygienist was licensed as of April 19, 2001; or
- (2) If the dental hygienist is school sealant endorsed under [RCW 43.70.650](#).
A hygienist providing services under this section must collect data on patients treated, including age, treatment rendered, methods of reimbursement for treatment, evidence of coordination with local public health jurisdictions and local oral health coalitions, and patient referrals to dentists. This data must be submitted to the Department of Health at the end of each annual quarter, during the period of time between October 1, 2007, and October 1, 2013.

[2009 c 321 § 2; 2007 c 270 § 2; 2001 c 93 § 3.]

Notes:

Report — Effective date — 2009 c 321: See notes following [RCW 18.29.056](#).

Report — 2007 c 270: See note following [RCW 18.29.056](#).

Findings — Intent — Effective date — 2001 c 93: See notes following [RCW 43.70.650](#).



Revised Code of Washington

RCW 18.29.230

Services at senior centers and community-based sealant programs — Dental hygienist duties.

A dental hygienist participating in a program under [RCW 18.29.056](#) that involves providing services at senior centers, as defined in [RCW 18.29.056](#), or under [RCW 18.29.220](#) that involves removing deposits and stains from the surfaces of teeth in a community-based sealant program must:

- (1) Provide the patient or, if the patient is a minor, the parent or legal guardian of the patient, if reasonably available, with written information that includes at least the following:
 - (a) A notice that the treatment being given under the program is not a comprehensive oral health care service, but is provided as a preventive service only; and
 - (b) A recommendation that the patient should be examined by a licensed dentist for comprehensive oral health care services; and
- (2) Assist the patient in obtaining a referral for further dental planning and treatment, including providing a written description of methods and sources by which a patient may obtain a referral, if needed, to a dentist, and a list of licensed dentists in the community. Written information should be provided to the parent on the potential needs of the patient.

[2007 c 270 § 3.]

Notes: Report — 2007 c 270: See note following [RCW 18.29.056](#).



Revised Code of Washington

RCW 18.32.226 (dental assistants)

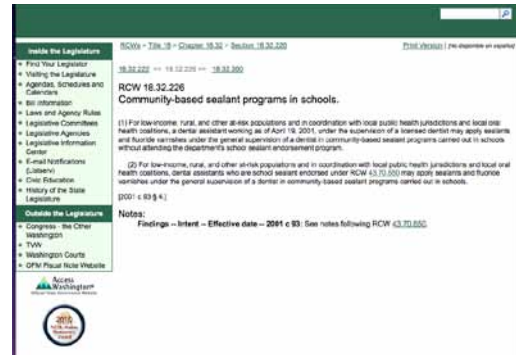
Community-based sealant programs in schools.

- (1) For low-income, rural, and other at-risk populations and in coordination with local public health jurisdictions and local oral health coalitions, a dental assistant working as of April 19, 2001, under the supervision of a licensed dentist may apply sealants and fluoride varnishes under the general supervision of a dentist in community-based sealant programs carried out in schools without attending the department's school sealant endorsement program.
- (2) For low-income, rural, and other at-risk populations and in coordination with local public health jurisdictions and local oral health coalitions, dental assistants who are school sealant endorsed under [RCW 43.70.650](#) may apply sealants and fluoride varnishes under the general supervision of a dentist in community-based sealant programs carried out in schools.

[2001 c 93 § 4.]

Notes:

Findings — Intent — Effective date — 2001 c 93: See notes following [RCW 43.70.650](#).



APPENDIX B

Samples of Memorandum of Understanding

SAMPLE 1



KLICKITAT COUNTY
DEPARTMENT OF PUBLIC HEALTH

228 W. MAIN STREET, SUITE B, GOLDENDALE WASHINGTON 98620 • VOICE 509-773-4565 • FAX 509-773-5991
501 NE WASHINGTON ST. P.O. BOX 159 WHITE SALMON, WA. 98672 • VOICE 509-493-1558 • FAX 509-493-4025

[Date]

To [whom it may concern];

Klickitat County Health Department is aware of [name of sealant provider or sealant business] 2011–12 service delivery plans to rural schools in the county. In cooperation with county-wide dental care efforts and planning for children and youth, any assessment data obtained during school visits can be reported to the department. This information is most appreciated.

Future collaborative planning efforts to provide preventive services in conjunction with KC Oral Health Coalition are encouraged. Participation in coalition meetings are recommended as a venue for collaboration. Email notification will be the method of notification.

Thank you for your part in making Klickitat County a healthy place to live, work and play.

Sincerely,

Community Health/Prevention Manager

Dental Providers for Community Based Services

This letter of understanding serves to define the role of a dental provider of community based dental services (hereafter called “provider”) and the role of Public Health – Seattle & King County (PHSKC), a department of King County, in addressing WAC 246-816-010 (Access to Dental Care for Children – Senate Bill 6020).

Providers offering preventive oral health care in schools within King County will comply with Washington State Department of Health Sealant/Fluoride Guidelines. It is the provider’s responsibility to formalize agreements with individual school districts.

It is understood by both parties to the above mentioned arrangement that:

- Providers will deliver, without charge to or salary from the County, dental preventive services to children in schools in King County;
- Providers will formalize agreements with individual school districts and inform PHSKC of these agreements with the names of the elementary schools to be served;
- Providers will submit to PHSKC school data at the end of each school year including but not limited to the following:
 1. Number of students screened by grade
 2. Number of students receiving sealants by grade
 3. Number of permanent molars sealed by grade
 4. Number of students referred for treatment by grade
 5. One Year retention rates
 6. Number of students receiving fluoride varnish applications for both initial application and second applications by grade
- PHSKC currently serves schools in the Seattle School District and, occasionally by grant, schools in the Highline School District. Providers will need to consult with the Community Based Oral Health Program Supervisor for a current list of schools already being served to avoid duplications. Providers should also obtain information directly from the school districts regarding other Independent Prevention Programs being provided within the district.

In providing dental services under this agreement, providers are not employee(s) or contractors of King County and the County assumes no responsibility for the payment of any compensation, wages, benefits or taxes to you or on your behalf.

PHSKC assumes liability only for services offered directly through the programs delivered by PHSKC staff. It does not assume any liability for services offered through arrangements by providers and school districts.

This arrangement will begin September 1, 2011 and shall remain in effect until terminated by either party.

By our signatures below, both parties state their understanding and acceptance of the roles described above.

APPENDIX C

School Dental Sealant Program Checklist for Schools

This checklist is to assist school districts working with mobile or portable dental care providers, assure the health and safety of all students, and confirm school-based services are coordinated.

School Dental Sealant Program Checklist for Schools

Checklist	Objective	Mobile/Portable Dental Provider Responsibilities
	Quality Assurance	Display current Department of Health License with School Sealant and Fluoride Varnish endorsement. Licenses renew yearly.
	Quality Assurance	Read the <i>Washington State Dental Sealant & Fluoride Varnish Program Guidelines</i> at: www.doh.wa.gov/PublicHealthandHealthcareProviders/HealthcareProfessionsandFacilities/PatientCareResources/OralHealth/DentalSealants.aspx
	Quality Assurance	Provide copy of contract with a Local Health Jurisdiction or Oral Health Coalition. This may be a Memorandum of Understanding.
	Quality Assurance	Provide proof of Malpractice Insurance.
	Access	Provide equal access for all students to school services. Treat all children with consent regardless of ability to pay.
	Access	Address issues for children with special health care needs.
	Quality Assurance	Provide oral health education to all classes in the school.
	Sealant Application	Offer dental sealants on 1st and 2nd permanent molars.
	Quality Assurance	Offer sealant retention checks between six months and one year.
	Data Reporting	Report required sealant data to both the Local Health Jurisdiction and the state Department of Health on a quarterly basis.
	Background Check	Access provider background check at: https://fortress.wa.gov/doh/providercredentialsearch/SearchCriteria.aspx
	Referrals	Provide referrals for comprehensive care, fillings, tooth extractions and emergency care with a referring dentist or community clinic.
	Quality Assurance	Follow all school district policies and protocols.

Oral health information for school staff:

[Washington State 2010 Smile Survey Fact Sheet](#)
[Oral Health and Learning](#)
[Tooth Tutor Fact Sheet](#)

APPENDIX D

Quality Assurance Tool and Checklist

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
I. STRUCTURE					
A. Population & Community	1. Written work plan defining community to be served.	1			
	2. Populations are appropriately targeted.	1			
B. Infrastructure and Capacity	1. System to assure sustainability and community support.	2			
	2. Community based advisory group is established.	2			
	3. Funding is secured.	2			
C. Staff	1. Program supervisor and on-site coordinator.	4			
	2. Staff wears appropriate identification on-site.	4			
	3. Professional license with endorsement is on file.	4			
	4. Written personnel policies governing term of employment, working conditions, duties, benefits, and opportunities for training or advancement.	4			
	5. Personnel guidelines, OSHA, WISHA, WACs, HIPAA regulations are followed.	5			
	6. Policy and procedure manuals that govern program operations.	4			
	7. Written agreements or contracts with dental providers are available for review by DOH.	4			
	8. Documented staff training	4			
D. Equipment, Supplies, and Facilities	1. One fully functioning dental unit	5			
	2. Equipment is properly maintained and in good repair.	5			
	3. Appropriate supplies	5			
	4. Backup equipment and replacement parts	5			
	5. Appropriate facilities	5			

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
E. Sterilization, Disinfection, and Exposure Control	1. Written policies and procedures for OSHA/WISHA, HIPAA, and infection control are available on site.	5			
	2. Sterilization space is isolated from treatment area.	5			
F. Medical Emergency and Hazard Preparedness	1. Copy of current CPR card on file for all providers.	4			
	2. Emergency procedures at schools are followed.	8			
G. Forms, Data, and Documentation	1. Student/patient records are available for use and kept in a secure area.	8			
	2. Student/patient records include demographics.	6			
	3. Other pertinent forms are attached to the student/patient record.	6			
	4. Consent forms are complete and available in appropriate languages.	6			
	5. A medical history is obtained for all students.	6			
	6. Dental records are complete; signed/dated by the assessor and provider.	6			
	7. Referral forms are available and used appropriately.	4			
	8. Process and outcomes information about prevention program is obtained from schools, communities, parents, students, and staff.	13			
	9. Program cost and billing data is available.	13			
II. PROCESS					
A. Defining Population & Community	1. School serves low-income, rural or other at-risk population. Selection is determined by the following:				
	a) Ability of students to access dental care.	1			
	b) HP2020 objectives targeted	1			
	c) Free/Reduced Lunch percentage is large or greater than average.	1			
	d) High rate of minority, homeless, ESL, or DD students.	1			
	e) Level of community/school support and commitment.	1			

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
A. Defining Population & Community (continued)	2. Child selection is determined by the following parameters:				
	a) Caries risk assessment appropriate for sealants and/or fluoride varnish applications.	1/11			
	b) Second and Third Grade (6–8 year olds) for first permanent molar sealants. Sixth and Seventh Grade (11–12 year olds) for second permanent molar sealants.	11			
	c) Positive consent obtained from parent or caregiver.	6			
	d) Screened by licensed dentist or endorsed dental hygienist.	1			
	3. Tooth selection is determined by the following parameters:				
	a) First/second permanent molars for sealants.	9			
	b) Pit and fissure assessment.	9			
	c) Smooth surface assessment.	9			
B. Infrastructure and Capacity	1. Oral Health Coalition or Program Advisory group has been established.	1			
	2. Services are coordinated with LHJ's and/or oral health coalitions.	1			
	3. Services are billed appropriately.	3/6			
	4. Billing records are available.	6			
	5. Medicaid is billed fee for services or for Administrative Match.	3			
C. Staff Training	1. Staff is trained in equipment operation and maintenance and safety.	4/5			
	2. Staff is trained in sealant placement and evaluation and in fluoride varnish application.	4			
	3. Staff training is provided for policies, procedures, protocols, and program forms.	4			
	4. Staff training is documented.	4			
	5. Contractors and independent providers comply with training requirements as quality assurance mechanism.	4			

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
D. Sterilization, Disinfection, and Exposure Control	1. Instruments are appropriately sterilized.	5			
	2. Sterilizing areas are properly vented.	5			
	3. Technique and effectiveness of sterilization are tested according to OSHA/WISHA.	5			
	4. Sterilized instruments are stored in the sterilizing bags.	5			
	5. Disposable instruments and supplies are used when feasible.	5			
	6. All surfaces are wiped with a suitable disinfectant.	5			
	7. Disposable covers are used for handles, switches, headrests, and trays.	5			
	8. Contaminated disposed materials are sterilized when possible and discarded in special sealed plastic bags.	5			
	9. Disposable items are brought back to the Health Department or appropriate facility for disposal and are not placed in the community general trash.	5			
	10. Hands are washed thoroughly before and after treatment. Approved hand-cleaning agents are used when water is not available.	5			
	11. Gloves, masks, and eye protection are worn. Gloves are disposed of after each patient.	5			
	12. High velocity evacuation is used.	5			
	13. Infection and exposure control policies along with MSDSs are available on site.	5			

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
E. Medical Emergency and Hazard Preparedness	1. Available accident and injury report forms along with appropriate phone numbers.	8			
	2. Staff is familiar with school emergency routines.	8			
	3. Staff is trained in prevention of accidents with chemicals and knowledge of emergency procedures in the event of injurious exposure. All hazardous chemicals are appropriately labeled and stored.	5/8			
	4. Noise a) Appropriate precautions are taken to reduce noise levels.	8			
	5. Earthquake a) Available earthquake preparedness kits at sites and in all vehicles.	8			
	6. Available emergency medical kits on site.	8			
F. Forms, Data, and Documentation	1. Internal documentation reviewed yearly and recorded.	6			
	a) Performance and documentation of medical/dental history.	6			
	b) Student/patient information data base is developed.	6			
	c) Medical history is obtained on all student/patients and all questions are answered.	6			
	d) Possible compromising conditions are followed up and documented.	6			
	e) Charts of student/patients with compromising conditions are flagged with a medical alert sign.	6			
	f) Health histories are dated and signed by parent or caregiver.	6			
	g) All histories are reviewed and signed by the provider.	6			
	h) Performance and documentation of student/patient assessment.	6			
	i) Oral health assessments are conducted using the Smile Survey format.	6			
	j) All findings are recorded and dated.	6			

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
F. Forms, Data, and Documentation <i>(continued)</i>	k) Assessment for sealant placement/ fluoride varnish application conforms to Washington State Guidelines.	1			
	l) Oral health status and treatment needs of each student screened are reported to parent or caregiver.	6			
	m) Assessment is documented in a clearly identified portion on the student/patient record.	6			
	n) A treatment plan based on the assessment is clearly written in the student/patient record.	6			
	o) Any field service beyond oral health assessments has informed consent.	6			
G. Sealant Placement and Fluoride Varnish Application	1. Sealant is applied using a four-handed approach.	9			
	2. Curing lights function properly and are checked by radiometer at regular intervals.	9			
	3. Sealant retention rates are 85% or higher.	9			
	4. Materials log is used noting type of material, brand name, and manufacturer's lot number.	9			
	5. Fluoride application provided following Washington State Guidelines.	9			
	6. Risk assessment form for fluoride varnish programs.	4			
III. PROGRAM EVALUATION					
A. Process Measures	1. Oral health assessments indicate that schools targeted for sealant programs have high-risk populations.	13			
	2. Sealant retention rate is 90% or higher.	10			
	3. Child receives multiple yearly fluoride varnish applications.	13			
	4. Documented evaluation complies with expected rates.	13			
	5. Other indicators as dictated by specific program needs are documented and reviewed yearly.	13			

Sections	Measures	Chapter Referenced	Completed		Notes
			YES	NO	
B. Access and Satisfaction	1. Qualitative data is collected and analyzed to measure school/ community satisfaction with services.	6			
	2. Data regarding untreated disease and treatment referrals are shared with the community.	6			
C. Utilization	1. Data are reported appropriately.	6			
	2. Indicators as dictated by specific program needs are documented and reviewed yearly.	6			
	3. Dental Hygiene Services – School Report form sent to DOH	6			

APPENDIX E

Characteristics of Major Resin-based Dental Sealant Products

Materials listed according to percent filler (2008)²⁹

Brand Name (Manufacturer)	Technique (ODH requires traditional)	Filler (%wt) (ODH requires <10% fill)	Color (Grantee choice: ODH recommends against clear)	Cure Method
Delton (Dentsply)	Traditional	0%	clear tinted white opaque	AUTO
Delton DDS (Dentsply)	Traditional	0%	clear white opaque	LIGHT
Helioseal/Helioseal Clear (Ivoclar)	Traditional	0%	clear white opaque	LIGHT
Seal America (Medical Products Laboratories, Inc.)	Traditional	0%	white opaque	LIGHT AUTO (2: fast set and regular set)
Conseal Clear (SDI)	Traditional	0%	clear	LIGHT
ClinPro (3M ESPE)	Traditional		pink when applied, off-white when expose to curing light	LIGHT
ClinPro Adper Prompt-LPop (3M ESPE)	Self Etch*	6%	pink when applied, off-white when expose to curing light	LIGHT
Baritone (Confi-dental)	Traditional	6.5%	white opaque	LIGHT
Natural Elegance (Schein)	Traditional	6.5%	white opaque	LIGHT
Conseal F (SDI)	Traditional	7.0%	white opaque	LIGHT
Seal-Rite Low-viscosity (Pulpdent)	Traditional	7.7%	off-white	LIGHT
Conseal Light Grey (SDI)	Traditional	8.0%	light grey	LIGHT
Guardian Seal (Kerr)	Traditional	30.0%*	white opaque	LIGHT
Seal-Rite (Pulp-dent)	Traditional	36.6%*	off-white	LIGHT

*Products **not** recommended

²⁹ Ohio Department of Health, Bureau of Oral Health Services School-based Dental Sealant Program Manual available on the ODH website at <http://www.odh.ohio.gov/odhPrograms/ohs/oral/oral1.aspx>

APPENDIX F

AAPD Caries Risk Assessment Tool (CAT)

	Low Risk	Moderate Risk	High Risk
Clinical Conditions	<ul style="list-style-type: none"> • No caries • No enamel demineralization • No visible plaque • No gingivitis 	<ul style="list-style-type: none"> • Carious teeth in past 24 months • One area of enamel demineralization (enamel caries “white spot lesions”) • Gingivitis 	<ul style="list-style-type: none"> • Carious teeth in the past 12 months • More than 1 area of enamel demineralization • Visible plaque on anterior teeth • Radiographic enamel caries • High titers of mutans streptococci • Wearing dental or orthodontic appliance • Enamel hypoplasia
Environmental	<ul style="list-style-type: none"> • Optimal systemic topical fluoride exposure • Consumption of simple sugars or foods strongly associated with caries imitation primarily at mealtimes • High caregiver socioeconomic status • Regular use of dental care in an established dental home 	<ul style="list-style-type: none"> • Suboptimal systemic fluoride exposure with optimal topical exposure. • Occasional (1-2) between-meal exposures to simple sugars or foods strongly associated with caries. • Mid-level caregiver socioeconomic status (i.e., eligible for school lunch program or SCHIP) • Irregular use of dental services 	<ul style="list-style-type: none"> • Suboptimal systemic fluoride exposure with optimal topical exposure. • Occasional (1–2) between-meal exposures to simple sugars or foods strongly associated with caries. • Mid-level caregiver socio-economic status (i.e., eligible for school lunch program or SCHIP) • Irregular use of dental services • Suboptimal topical fluoride exposure • Frequent (i.e., 3–4 or more) between-meal exposures to simple sugars or foods strongly associated with caries. • Low-level caregiver socio-economic status (i.e., eligible for Medicaid) • No usual source of dental care • Active caries present in the mother
General Health Conditions			<ul style="list-style-type: none"> • Children with special health care needs. • Conditions impairing saliva composition/flow

Circle the conditions that apply to each student. Each child’s overall assessed risk for developing caries is based on the highest level of risk indicator (i.e., a single risk indicator in any area of the “high risk” category classifies a child as being “high risk”).

APPENDIX G

Recommended Sealant Supply List

Checklist	Sealant Supplies	Checklist	Sealant Supplies
	Air-water syringe tips (disposable)		Ultrasonic cleaner solution
	Bib clips		Vacuum-Cleaner
	Bib		Tubs (Rubbermaid type) for contaminated instruments
	Eyewear (for provider and students)		Cotton roll holders/Isolators cotton rolls
	Disposable gloves		Dri Aids, Dry Tips, Dry Angles
	Gowns (laundry service/disposable)		Isolation devices, Isolite, vacuum mirror
	Hand soap		Etching liquid
	Hand wipes		Evacuator tips
	Head rest chair cover		Explorers
	Plastic sleeves for air/water syringe, vacuum, and hoses		Mirrors
	Curing light handle covers		Sealant material (Autocure/Light cure)
	Curing light		Etch applicator (brush, quick tip cotton pellet)
	Curing light tip covers		Disposable mouth props
	Surface covers (plastic roll)		Pencils, stickers (incentives)
	Autoclave/sterilizer bags		Heavy duty extension cords
	Autoclave/sterilizer cleaner		Power strips
	Autoclave/sterilizer spore test kits and service company		Tool kit for equipment repairs (Allen wrench, duct tape)
	Autoclave/sterilizer indicator tape		Cooler for sealant material storage
	Surface disinfectant		Office supplies (stapler, paper clips, tape, pens, extra forms, etc.)
	Distilled water		Electrical plug strip
	Emergency kits		Plug converter
	Gauze squares		Table covers
	Chemical disinfectant		Clock with second hand
	Refillable spray bottles		Radio/music
	Paper towels		Tubs (Rubbermaid type) for contaminated instruments
	Trash liners		Cotton roll holders/Isolators cotton rolls

APPENDIX H

Recommended Fluoride Varnish Supply List

Checklist	Fluoride Varnish Supplies	Checklist	Fluoride Varnish Supplies
	Disposable gloves		Tubs (Rubbermaid type) for contaminated instruments
	Hand wipes or waterless hand cleaner		5% Sodium Fluoride Varnish
	Plastic sleeves for light		Dappen dish or paper pad (if not using unit dose package)
	Tray covers		Applicator (if not using unit dose package)
	Eyewear (for provider and students)		Penlights, Maglight, or other light source
	Chemical disinfectant towelettes		Explorers
	Paper towels or disposable bibs		Mirrors
	Trash liners		Toothbrushes
	Autoclave/sterilizer bags		Stickers (Incentives)
	Autoclave/sterilizer cleaner		2 x 2 gauze
	Autoclave/sterilizer spore test kits and service		Office supplies (stapler, paper, clips, tape, pens, extra forms, etc.)
	Autoclave/sterilizer indicator tape		Tubs (Rubbermaid type) for transporting supplies
	Distilled water		Batteries, if using Maglights
	Refillable spray bottles		Portable emergency eye wash supplies or portable eye wash station
	Ultrasonic cleaner solution		Emergency kit

APPENDIX I

Useful Links

National Resources

[Centers for Disease Control and Prevention \(CDC\) – Oral Health Resources](#)
[National Institute of Dental and Craniofacial Research \(NIDCR\)](#)
[Health Resources and Services Administration \(HRSA\)](#)
[National Maternal & Child Oral Health Resource Center](#)
[Oral Health in America: A Report of the Surgeon General 2000](#)
[National Call to Action to Promote Oral Health 2003](#)
[Healthy People 2020](#)
[Association of State & Territorial Dental Directors \(ASTDD\)](#)

State Reports, Data and Resources

[Washington State Department of Health, Office of Healthy Communities, Oral Health Program](#)
[Health Systems Quality Assurance, Dental Hygiene Sealant/Fluoride Varnish Endorsement packet](#)
[Health Systems Quality Assurance, Dental Assistant Sealant/Fluoride Varnish Endorsement packet](#)
[Health Systems Quality Assurance, Dental Hygiene Services in Schools](#)
[Health Care Authority \(Washington State Medicaid\)](#)
[ProviderOne Listserv \(Washington State Medicaid\)](#)
[Washington State Legislature Laws and Agency Rules](#)
[Washington State Smile Survey 2010 \(Fact Sheet and Full Report\)](#)

Water Fluoridation

[Washington State: Fluoride Levels in Drinking Water](#)
[Center for Disease Control and Prevention: Community Water Fluoridation](#)

Sealants

[American Academy of Pediatric Dentistry: Guidelines on Caries – risk assessment](#)
[American Dental Association \(ADA\): Dental Sealants: Protecting Your Teeth](#)
[ADA – Preventing Dental Caries through School-Based Sealant Programs 2009](#)
[CDC – School-based Dental Sealant Programs](#)
[CDC – Dental Sealant Fact Sheet](#)
[CDC – Sealant Efficiency Assessment for Locals and States \(SEALS\) – Reporting Software](#)
[National Maternal & Child Oral Health Resource Center \(OHRC\) – Dental Sealants: A Resource Guide](#)
[OHRC – Preventing Tooth Decay and Saving Teeth with Dental Sealants, 3rd Edition](#)
[Seal America – The Prevention Invention 2011](#)
[Seal America – Video: Seal in a Smile](#)
[Seal Out Tooth Decay \(NIDCR\): English, Spanish](#)
[ASTDD Mobile – Portable Dental Services in Preschool and School Settings](#)
[ASTDD Mobile – Portable Dental Manual](#)

Fluoride Varnish

[ASTDD Fluoride Varnish: an Evidence-Based Approach](#)

[ASTDD Fluoride Varnish Policy Statement](#)

[Fluoride Varnish Fact Sheet for Parents](#)

[Fluoride Varnish Resource Guide](#)

Information for Parents on Fluoride Varnish: [English](#), [Spanish](#)

[Smiles for Life](#) – A National Oral Health Curriculum

Infection control and safety

[Emergency Preparedness Resource Guide](#)

[Bloodborne Pathogens: Control Employee Exposure](#) (WAC 296-823-140)

[WISHA – Bloodborne Pathogen Training](#)

[Organization for Safety, Asepsis and Prevention \(OSAP\)](#)

[Safety and Infection Prevention Guidance for Oral Healthcare Environments](#)

School resources

[Office of Superintendent of Public Instruction \(OSPI\) Free & Reduced-Price Meals Eligibility](#)

[OHRC – Oral Health and Learning](#)

[OHRC – Pain and Suffering Shouldn't Be an Option](#)

[Tooth Tutor 2010 – Full Curriculum and Fact Sheet \(PDF\)](#)

[Washington State Smile Survey 2010 Fact Sheet and Full Report](#)

Other

Assessing oral health needs: [ASTDD Seven Step Model](#)

[Health Education Resource Exchange \(H.E.R.E.\)](#)

APPENDIX J

Other Related Literature

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