



Dental Public Health Activity Descriptive Report Submission Form

The Best Practices Committee requests that you complete the Descriptive Report Submission Form as follow-up to acceptance of your State Activity Submission as an example of a best practice.

Please provide a more detailed description of your **successful dental public health activity** by fully completing this form. Expand the submission form as needed but within any limitations noted.

ASTDD Best Practices: [Strength of Evidence Supporting Best Practice Approaches](#)
Systematic vs. Narrative Reviews: <http://libguides.mssm.edu/c.php?g=168543&p=1107631>

NOTE: Please use Verdana 9 font.

CONTACT PERSON PREPARING THE SUBMISSION AND TO ANSWER QUESTIONS
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PROVIDE CONTACT INFORMATION FOR ONE ADDITIONAL PERSON WHO COULD ANSWER QUESTIONS REGARDING THIS PROGRAM
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SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Statewide School Fluoride Program

Public Health Functions*: Check one or more categories related to the activity.

"X"	Assessment
	1. Assess oral health status and implement an oral health surveillance system.
	2. Analyze determinants of oral health and respond to health hazards in the community
	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
Policy Development	
X	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
	5. Develop and implement policies and systematic plans that support state and community oral health efforts
Assurance	
	6. Review, educate about and enforce laws and regulations that promote oral health and ensure safe oral health practices
X	7. Reduce barriers to care and assure utilization of personal and population-based oral health services
	8. Assure an adequate and competent public and private oral health workforce
X	9. Evaluate effectiveness, accessibility and quality of personal and population-based oral health promotion activities and oral health services
	10. Conduct and review research for new insights and innovative solutions to oral health problems

***[ASTDD Guidelines for State and Territorial Oral Health Programs that includes 10 Essential Public Health Services to Promote Oral Health](#)**

Healthy People 2020 Objectives: Check one or more key objectives related to the activity. If appropriate, add other national or state HP 2020 Objectives, such as tobacco use or injury.

"X"	Healthy People 2020 Oral Health Objectives
X	OH-1 Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth
X	OH-2 Reduce the proportion of children and adolescents with untreated dental decay
	OH-3 Reduce the proportion of adults with untreated dental decay
	OH-4 Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease
	OH-5 Reduce the proportion of adults aged 45 to 74 years with moderate or severe periodontitis
	OH-6 Increase the proportion of oral and pharyngeal cancers detected at the earliest stage
X	OH-7 Increase the proportion of children, adolescents, and adults who used the oral health care system in the past year
X	OH-8 Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year
	OH-9 Increase the proportion of school-based health centers with an oral health component
	OH-10 Increase the proportion of local health departments and Federally Qualified Health Centers (FQHCs) that have an oral health component
	OH-11 Increase the proportion of patients who receive oral health services at Federally Qualified Health Centers each year

OH-12	Increase the proportion of children and adolescents who have received dental sealants on their molar teeth
OH-13	Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water
OH-14	Increase the proportion of adults who receive preventive interventions in dental offices
OH-15	Increase the number of States and the District of Columbia that have a system for recording and referring infants and children with cleft lips and cleft palates to craniofacial anomaly rehabilitative teams
OH-16	Increase the number of States and the District of Columbia that have an oral and craniofacial health surveillance system
OH-17	Increase health agencies that have a dental public health program directed by a dental professional with public health training

"X"	Other national or state Healthy People 2020 Objectives: (list objective number and topic)

Provide 3-5 Key Words (e.g. fluoride, sealants, access to care, coalitions, policy, Medicaid, etc.) These will assist those looking for information on this topic:

Fluoride mouthrinse, fluoride tablets, school-based oral health, access to care, children oral health, children services, prevention, fluoride in schools

Executive Summary: Complete after Section II: Detailed Activity Description. Please limit to 300 words in one or two paragraphs.

Provide a brief description of the dental public health activity. Include information on: (1) what is being done; (2) who is doing it and why; (3) associated costs; (4) outcomes achieved (5) lessons learned, both positive and negative.

The Oral Health Unit of the Oregon Health Authority (OHA), Public Health Division administers the statewide School Fluoride Program, a school-based program providing weekly fluoride mouthrinses or daily chewable fluoride tablets to children in grades K-6. The fluoride mouthrinse program began statewide in 1974. Chewable tablets were added as an option in 1987. Schools are eligible if at least 30% of the students are eligible for the National School Lunch Program (NSLP). Only 22% of Oregon's population is served by optimally fluoridated water systems, so participation in the tablet program is encouraged in non-fluoridated areas; the mouthrinse program is recommended in fluoridated areas.

The School Fluoride Program is supervised and coordinated statewide by a dental hygienist who serves as the School Oral Health Programs Coordinator. A hygienist seeking the position of coordinator goes through the normal hiring process used by the OHA. An advanced degree or public health experience is given preference, but is not required. The Coordinator introduces the program to new schools and provides training and technical support to the school staff responsible for administering the fluoride. The training is based on national guidelines, but the format is determined by the program coordinator. The program provides fluoride rinse, tablets, toothbrushes, and training materials at no cost to the schools. The fluoride is administered to the students by school nurses, teachers, health aides, school administrative staff, parents and/or volunteers as determined by each school. Funding for the program comes from Maternal and Child Health Title V block grant. The biennium budget is \$95,100 for program supplies and services (e.g., toothbrushes, fluoride supplies, form translations and printing, etc.). The School Fluoride Program costs approximately \$5.39 per child per school year. During the 2016-17 school year, 49 grade schools participated in the program, providing fluoride mouthrinses or tablets to a total of 8,814 children. The program has decreased from serving 79 schools in the 2006-07 school year to serving 49 schools in 2016-17. This decrease may be due to the additional internal demands placed on school staff or that many school oral health programs in Oregon have begun to provide fluoride varnish in addition to dental sealant services.

SECTION II: DETAILED ACTIVITY DESCRIPTION

Provide detailed narrative about the dental public health activity using the headings provided and answering the questions. Include specifics to help readers understand what you are doing and how it's being done. References and links to information may be included.

****Complete using Verdana 9 font.**

Rationale and History of the Activity:

1. What were the key issues that led to the initiation of this activity?

Dental caries is the most common disease of childhood. Community water fluoridation and school dental sealant programs are the most effective intervention to prevent caries in a community. Oregon ranks 48th out of 50 states in community water fluoridation, and has ranked this low for decades. Only 22% of Oregonians have access to community water fluoridation.

The school fluoride mouthrinse program began statewide in 1974. The Oregon legislature passed a community water fluoridation mandate in 1978, but it was rescinded in 1980. Chewable tablets were added to school programs as an option in 1987. School fluoride programs are an attempt to provide an additional fluoride resource, although only the students that have parental permission in participating schools benefit.

Fluoridation mandates were attempted again in the legislature in 1999, 2001, 2005 and 2007, and all of them failed. The 2007 Oregon Smile Survey of 1st, 2nd, and 3rd graders found that in every major measurement of children's oral health, outcomes had worsened since the first 2002 Smile Survey. There was a 38% increase in caries in permanent teeth, an increase in rampant decay, and a 49% increase in untreated decay. In 2007, after the last failed fluoridation mandate attempt, the Oregon legislature provided general funds for a state dental sealant program coordinator position. The Oregon Health Authority (OHA) continued to provide funding for the School Fluoride Program, using federal funds from the Maternal and Child Health Title V block grant.

The 2012 Oregon Smile Survey showed an improvement in all areas. The 2017 Smile Survey is currently being conducted, with results expected in the fall of 2018.

2. What rationale/evidence (may be anecdotal) did you use to support the implementation of this activity?

Since it seems unlikely that Oregon will have any significant increase in community water fluoridation, the OHA will continue to provide funding for the statewide School Fluoride Program. One of Oregon's largest counties, Multnomah County, discontinued its School Fluoride Program in 2015. One reason cited was that school fluoride programs were difficult to monitor adequately (i.e., there was no reliable way to ensure students were receiving the fluoride consistently). The county decided to repurpose the fluoride funds to expand their School Dental Sealant Program.

3. What month and year did the activity begin and what milestones have occurred along the way? (May include a timeline.)

The "Swish and Swash" fluoride mouth rinse program began statewide in September of 1974. Chewable tablets were added as an option in 1987 and the name was changed to the King Fluoride Program, and later to the School Fluoride Program. From 2005 to 2009, school participation increased slowly from 87 schools to 100 schools due to the OHA's active promotion of the program. Information about the School Fluoride Program was included in the email introducing the new School Dental Sealant Program (i.e. "School Fluoride Programs reduce cavities 20 to 35%. School Dental Sealant Programs reduced cavities by 50%. Using both programs provides the best results, but using even one program provides significant benefits.") From 2009 on, participation began to decline – for example, only 70 schools were participating in 2013-14 and 49 schools were participating by the 2016-17 school year. This decline may be contributed partly to the redirection of limited OHA staff time to promoting the OHA's School Dental Sealant Program. The negative findings of the 2007 Smile Survey also caused

a considerable increase in the school oral health programs provided by community or philanthropic organizations. Schools went from “no oral health programs” to being inundated with programs. Unfortunately, many of these well-meaning programs had failed to conduct needs assessments or do program planning prior to approaching schools (i.e. were there already existing oral health programs in the schools? What evidence-based services should be offered? Is this program sustainable?). Some schools took on the formidable task of coordinating multiple oral health programs, but eventually many schools simply declined additional services.

The sections below follow a logic model format. For more information on logic models go to: [W.K. Kellogg Foundation: Logic Model Development Guide](#)

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
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1. What resources were needed to carry out the activity? (e.g., staffing, volunteers, funding, partnerships, collaborations with various organizations, etc.)

The Oregon Health Authority (OHA) provides Maternal and Child Health Title V funding for the statewide School Dental Fluoride Program (\$51,549 per year). The funding pays for a portion of the OHA’s School Oral Health Programs Coordinator position, supplies (fluoride rinse/jugs/pumps, fluoride tablets, toothbrushes) forms translations and printing, and training. Training is provided via initial contact with schools, new school visits, online modules, email attachments, mailed hard copies, and person-to-person technical assistance. The primary partnership is with the school staff.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
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2. Please provide a detailed description the key aspects of the activity, including the following aspects: administration, operations, and services.

Schools are approached to implement the program via an introductory email. The email details the need for the program, benefits of the program, and program protocols. When a school accepts the program, the OHA School Oral Health Programs Coordinator meets with the school nurse and applicable staff to share details of the program. The school submits an order for the fluoride in February, via Survey Monkey, prior to the school year that the program is to be implemented. The OHA Coordinator determines the supplies needed for each school and orders the supplies in April. The parent permission forms and training packet are sent to the schools in early August, so the forms can be included in the school registration packet and staff trained. Supplies are received by the OHA staff in early August and are labeled and sent to the schools in late August. The designated fluoride contact person at the school ensures that all people administering the program (school nurses, staff, or volunteers) are trained. The OHA provides ongoing technical assistance throughout the school year.

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
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3. What outputs or direct products resulted from program activities? (e.g., number of clients served, number of services units delivered, products developed, accomplishments, etc.)

2013-14

- 70 schools participated in the OHA School Fluoride Program
- 11,429 students participated

2014-15

- 48 schools participated in the OHA School Fluoride Program
- 9,206 students participated

2015-16

- 44 schools participated in the OHA School Fluoride Program
- 7,568 students participated

2016-17

- 49 schools participated in the OHA School Fluoride Program

- 8,814 students participated

The OHA program developed the following:

- Parent permission forms
 - [Fluoride tablet](#)
 - [Fluoride rinse](#)
- [Training materials \(Power point PDF\)](#)
- [Research information \(Power point PDF\)](#)

The OHA also created a Survey Monkey template to ask programs about their product needs for the ensuing year and asked for their comments about the program (e.g., What worked? What do you need help with?)

The comments received included:

- Tablet Program. We liked the:
 - Convenience of ordering
 - Prompt receipt of the tablets and forms before registration
 - Simplicity and clarity of the training materials
- Rinse Program. We liked the:
 - Supplies being sent directly
 - Forms being provided
 - Ease of mixing the fluoride
 - Choice of flavors

The number of consent forms returned varied by school, but the average per school was 60% positive consent. For the 2016-17 school year, 49 schools participated – 24 schools used the tablets (4,618 students); 25 schools used the rinse (4,196 students).

INPUTS	PROGRAM ACTIVITIES	OUTPUTS	OUTCOMES
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4. What outcomes did the program achieve? (e.g., health statuses, knowledge, behavior, care delivery system, impact on target population, etc.) Please include the following aspects:
- How outcomes are measured
 - How often they are/were measured
 - Data sources used
 - Whether intended to be short-term (attainable within 1-3 years), intermediate (achievable within 4-6 years), or long-term (impact achieved in 7-10 years)

The OHA measures process outcomes, not actual health outcomes, due to the many variables and the inability to track individual child health over time. The OHA relies on research to determine the value of fluoride mouthrinse and tablets in this population and primarily targets schools where at least 30% of the students are eligible for the NSLP. The process outcome measured is the number of students participating in the School Fluoride Program each school year. Teachers are required to track every instance that a student receives the daily fluoride tablets or the weekly fluoride mouthrinse. The school submits the participation data for the current year to the OHA in February, as a pre-requisite for ordering fluoride for the ensuing school year.

Budgetary Information:

NOTE: Charts and tables may be used to provide clarity.

1. What is the annual budget for this activity?

\$50,549 per year

2. What are the costs associated with the activity? (Including staffing, materials, equipment, etc.)

OHA Staff time (5%)	\$4,000
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Tablets	\$23,039
Rinse	\$20,000
Jugs/pumps	\$480
Toothbrushes (for grades 1-3)	\$1,627
Toothbrushes (for grades 4-6)	\$531
Forms printing	\$930
Forms translation	\$942
TOTAL	\$51,549

3. How is the activity funded?

The program is federally funded as part of Oregon’s Maternal and Child Health Title V block grant.

4. What is the plan for sustainability?

The program will continue to be funded through the Maternal and Child Health Title V block grant.

Lessons Learned and/or Plans for Addressing Challenges:

1. What important lessons were learned that would be useful for others looking to implement a similar activity? Was there anything you would do differently?

Oregon has debated which fluoride modality is the most effective and cost-effective to use in the school setting statewide. Administering fluoride varnish would be much less time-consuming than administering fluoride mouthrinse and tablets throughout the year – and less of a burden for school staff (although the CDC recommends low levels of fluoride received frequently). Evidence-based research requires 2 to 4 fluoride varnishes per year. The first fluoride varnish application could be completed in conjunction with a school dental sealant program. The subsequent fluoride varnish application(s), however, involves additional staff time which is expensive. In Oregon, varnish can only be administered by dentists, dental hygienists, trained staff in a WIC or Head Start program, or dental assistants under direct supervision (i.e. hygienist or dentist must be onsite). We are considering the possibility of a rule change to allow assistants to apply varnish under general supervision (i.e. the service can be prescribed and then provided by the assistants without the presence of a dentist/hygienist).

The OHA has found that a school champion, advocating for the School Fluoride Program, increases the chance of success. Once the protocols are understood and a routine is established, school staff reports that the program is easy to administer.

2. What challenges did the activity encounter and how were those addressed?

Parent permission forms are mailed to the schools in early August to be included in the school registration packet. When added to the registration packet, the forms produce about a 60% acceptance response. The main challenges are to persuade a school to participate and then to ensure the program is actually implemented once the school has made a commitment. There have been a few instances when a school committed to the program and then returned the fluoride at the end of the year, never having implemented the program. There are also indications the fluoride is not always administered consistently. Programs reported problems with teacher resistance, school protocols that allowed inconsistency, changes in school staff, lack of volunteers, and too many demands on staff time.

During the training, the OHA stresses the importance of tracking data to ensure accountability. When schools are ordering for the upcoming year, they are required to report on actual participation numbers from the current year. The OHA provides a paper form for them to track daily (tablets) or weekly (rinse) participation. The OHA also offers an Excel version of these forms, but few schools request or use it.

Available Information Resources:

Share any models, tools, and/or guidelines developed by the program specifically for this activity that may be useful to others seeking additional information. Hyperlink resources if possible.

[Fluoride tablet permission forms](#)

[Fluoride rinse permission forms](#)

[Training PDF](#)

[Current Research](#)

TO BE COMPLETED BY ASTDD	
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