



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
<p>Name: Bob Russell, DDS, MPH</p> <p>Title: Public Health Dental Director</p> <p>Agency/Organization: Iowa Department of Public Health</p> <p>Address: 321 E. 12th Street Des Moines, IA 50319</p> <p>Phone: 515-281-4916</p> <p>Email: bob.russell@idph.iowa.gov</p>

SECTION I: ACTIVITY OVERVIEW

Title of the dental public health activity:

Fluoride Varnish Application 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.
x	2. Analyze determinants of oral health and respond to health hazards in the community
x	3. Assess public perceptions about oral health issues and educate/empower them to achieve and maintain optimal oral health
	Policy Development
	4. Mobilize community partners to leverage resources and advocate for/act on oral health issues
x	5. Develop and implement policies and systematic plans that support state and community oral health efforts
	Assurance
x	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 varnish, prevention, partnerships, children services, children oral health pregnant women services, pregnant women oral health

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 Iowa Department of Public Health (IDPH) contracts with 25 regional public and/or private non-profit organizations to provide Title V Maternal and Child Health (MCH) services in all 99 Iowa counties. The I-Smile™ dental home initiative is the oral health component for the contractors, who are responsible for assuring access to preventive and restorative dental services for their clients.

Application of fluoride varnish by Title V contractors first began in 1999 (seven years prior to the start of I-Smile™), after IDPH developed a fluoride varnish protocol. Currently, dental hygienists and nurses employed by the contracted organizations provide oral screenings and fluoride varnish applications to low-income children and pregnant women.

Several oral health objectives in Healthy People 2020 are being met through this program. Awareness about the importance of oral health is communicated to families and pregnant women; fluoride varnish is a proven effective preventive intervention; and going to locations children are located within - WIC clinics, preschools, schools, day care facilities, and Head Start centers - reduces disparities in access. In addition, pregnant women receive fluoride varnish applications in WIC clinics. All clients receive referrals for dental care. Assistance with making appointments, appointment reminders, and help with transportation is also available through the I-Smile™ /Title V contractors through care coordination services. Using fluoride varnish within the I-Smile™ Program is improving the oral health of children and pregnant women.

A close working relationship with Iowa Medicaid has been a critical component of the success of including fluoride varnish services within I-Smile™.

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?

Fluoride varnish studies have found a 25-45 percent reduction in tooth decay. The Iowa Department of Public Health (IDPH) contracts with 25 local public and/or private non-profit organizations for the Title V Maternal and Child & Adolescent Health (MCAH) program. The contractors assure preventive and restorative dental services for their MCAH clients. Since 1999, IDPH has administered a fluoride varnish application program through these Title V agencies.

IDPH worked with The University of Iowa College of Dentistry to develop a fluoride varnish protocol in 1999 and sponsored training for dental hygienists to perform early childhood dental screenings and fluoride varnish applications. In addition, in the late 1990's the Iowa Department of Human Services (DHS) collaborated with IDPH to allow EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Exception to Policy for Title V agencies, enabling them to be reimbursed for oral screenings and fluoride varnish applications provided by dental hygienists when an exception was requested of DHS. This exception is no longer required; reimbursement has become a standard of care as part of the EPSDT program. Medicaid reimburses Title V contractors for up to four fluoride varnish applications a year per client, when provided by a dental hygienist or by a trained nurse or physician assistant. (All non-dental personnel must be trained using an IDPH-approved training.)

In December 2006, the I-Smile™ dental home initiative became the oral health component of the local Title V contracts. This additional emphasis on oral health statewide has resulted in far greater numbers of children and pregnant women receiving fluoride varnish application in public health settings

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

Anecdotally, hygienists working in Iowa's school-based sealant programs report seeing less decay than in the past, likely related to the large increases in the number of at-risk children receiving fluoride varnish applications and referrals to dentists at early ages since the I-Smile™ program began statewide.

However, initially Iowa's surveillance system did not include an indicator of the number of teeth or sites with decay, limiting the ability to fully measure incidence of decay. In response, IDPH has incorporated the addition of the "number of teeth with decay" to its screening tools. This data will allow IDPH to further consider the impact of the provision of fluoride varnish within I-Smile™/Title V.

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

IDPH worked with The University of Iowa College of Dentistry to develop a fluoride varnish protocol in 1999 and sponsored training for dental hygienists to perform early childhood dental screenings and fluoride varnish applications. In addition, in the late 1990's the Iowa Department of Human Services (DHS) collaborated with IDPH to allow EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Exception to Policy for Title V agencies, enabling them to be reimbursed for oral screenings and fluoride varnish applications provided by dental hygienists when an exception was requested of DHS. This exception is no longer required; reimbursement has become a standard of care as part of the EPSDT program. Medicaid reimburses Title V contractors for up to four fluoride varnish applications a year per client, when provided by a dental hygienist or by a trained nurse or physician assistant. (All non-dental personnel must be trained using an IDPH-approved training.)

In 2017, there are 25 Maternal and Child Health contract organizations that employ dental hygienists and nurses to provide fluoride varnish to at risk children and pregnant women. Fluoride varnish is provided to children who have one or more of the following risk factors: visible plaque on primary incisors, carious lesions, white spot lesions, history of decay, and/or low socioeconomic status. Screenings and fluoride varnish applications are provided at WIC clinics, preschools, schools, day care facilities, and Head Start centers. Fluoride varnish is provided to pregnant women who have one or more of the following risk factors: carious lesions, white-spot lesions, a history of decay and/or low socioeconomic status. Screenings and fluoride varnish applications are provided at WIC clinics. Women and children are referred to dentists for regular and restorative dental care.

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.)

Partnerships with contracted Title V Maternal, Child and Adolescent Health (MCAH) agencies to implement the program and provide the workforce. Partnership with Department of Human Services that houses Iowa Medicaid provided the ability to bill Medicaid for fluoride varnish applications up to 4 times per year allows the program to be sustainable. Partnering with WIC, Head Start, schools and daycares allows the program access to children (and pregnant women) with needs.

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.

IDPH staff oversee the I-Smile™ program, administered through 25 local MCAH Title V contracted organizations. IDPH staff are responsible for contract management, technical assistance, and quality control. Registered Dental Hygienists (RDH) and Registered Nurses or Physician Assistants must be trained by an I-Smile™ Coordinator using IDPH-approved training, prior to providing fluoride varnish and other services. Services include oral screenings, fluoride varnish and education. Sealants may also be applied by RDH staff.

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.)

In 2017, costs for the Title V contractors to employ or contract a dental hygienist ranged from \$35 to \$60 per hour. Agency costs to apply fluoride varnish to a child range from \$18- \$33 and from \$22 - \$145 for an adult. Maximum Medicaid reimbursement is \$13.95.

With the I-Smile™ dental home initiative in place since the fall of 2006, Title V contractors are able to reach many more at-risk clients. In the first year of fluoride varnish application through Title V, prior to I-Smile™, Medicaid-enrolled children received 348 fluoride varnish applications, increasing to more than 860 the second year. By the end of 2017, over 57,200 fluoride varnish applications had been provided to children, including those who are Medicaid-enrolled, through Title V child health contractors, and over 2,100 fluoride varnish applications were provided to pregnant women through Title V maternal health contractors.

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 fluoride varnish program has significantly increased the number of children and pregnant women, particularly those who are Medicaid-enrolled, who have received preventive dental services including oral screenings, fluoride varnish and education to achieve the goal of reduced dental disease. These services provide not only improved health status but also increase knowledge about the importance of good oral health. Long term impact is improved oral health of Iowans.

Through a new data system, TAVConnect, IDPH is able to collect data for all dental services provided by Title V MCAH contractors. The new system allows IDPH to run reports for any number of parameters including any time frame requested. Title V contractors are required to enter data by the 15th of the month following the month of services. CMS 416 and Medicaid paid claims data is also used to determine the number of Medicaid-enrolled children receiving dental services. These systems allow IDPH staff a clearer picture of the number of type of dental services provided throughout the state.

Budgetary Information:

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

1. What is the annual budget for this activity?

There is not a specific budget for this activity. The administrative costs to IDPH are funded through the Title V and I-Smile™ budgets. Contractors receive Title V and I-Smile™ funds to carry out services. Contractors also receive Medicaid reimbursement for fluoride applications provided to Medicaid-enrolled clients.

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

Costs for the fluoride varnish program include IDPH staff time for oversight and collecting data. Costs for the Title V contractors include supplies and staff time to provide the service along with data entry time.

3. How is the activity funded?

Through the I-Smile™ Dental Home Initiative funds, Title V block grant funds, state appropriations for I-Smile™ and Title V, and Medicaid revenue for services provided.

4. What is the plan for sustainability?

Sustainability is achieved through the ability of Title V contracted MCAH agencies to bill Iowa Medicaid for the dental services provided.

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?

Having a fluoride varnish protocol reinforces the safety and effectiveness of fluoride to reduce the risk of dental caries and encourages public health and other health professionals to incorporate its use

within practice. This has resulted in not only increased use within the Title V child health and maternal health programs, but some medical practices in Iowa include it within well-child examinations for Medicaid-enrolled children younger than age 3. This expansion of dental prevention within public and private settings has also increased the ability for at-risk children to receive screenings, risk assessments, anticipatory guidance for parents, and referrals for early and regular dental care. The interest by medical providers has been woven within the I-Smile™ Dental Home Initiative – trainings and tools have been created to assist medical providers in becoming part of a child’s dental home through screenings, fluoride applications, and oral health education. Finding a physician to champion this activity in medical practices, along with Bright Futures adding a specific line in the 2017 Periodicity Schedule for fluoride varnish has helped increase the number of physicians incorporating fluoride varnish into their pediatric practices.

A close working relationship with the Medicaid program/Department of Human Services has also been crucial to the success and sustainability of this program. When evidence showed that four fluoride varnish applications a year would benefit at-risk children, Iowa’s Medicaid program agreed to reimburse Title V contractors for application every 90 days. Medicaid also allows nurses employed by Title V agencies and trained by I-Smile™ Coordinators to apply fluoride varnish and bill Medicaid; adding to the sustainability of the program. Unfortunately, the reimbursement rate has remained quite low for this service.

Anecdotally, hygienists working in Iowa’s school-based sealant programs report seeing less decay than in the past, likely related to the large increases in the number of at-risk children receiving fluoride varnish applications and referrals to dentists at early ages. Iowa’s screening forms however, did not include a way to measure the number of teeth or sites with decay. As a result, there has not been a way to compare past decay experience with present experience for Iowa children. In response, IDPH has incorporated the addition of the “number of teeth with decay” to its screening tools. This data will allow IDPH to further consider the impact of the provision of fluoride varnish within I-Smile™/Title V.

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

Low reimbursement for services and static grant funding has been a challenge

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.

TO BE COMPLETED BY ASTDD	
Descriptive Report Number:	18002
Associated BPAR:	Use of Fluoride: School-based Fluoride Mouthrinse and Supplement Programs
Submitted by:	Iowa Department of Public Health
Submission filename:	DES18002IAfluoridevarnish-2018
Submission date:	July 2018
Last reviewed:	July 2018
Last updated:	July 2018