



Dental Public Health Activities & Practices

Practice Number: 05003
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SECTION I: PRACTICE OVERVIEW		
Name of the Practice: Policy for Private Water Source Fluoride Testing		
Public Health Functions: Policy Development – Oral Health Program Policies Assurance – Population-based Intervention		
Healthy People 2010 Objectives: 21-1 Reduce dental caries experience in children. 21-9 Increase persons on public water receiving fluoridated water. 21-10 Increase utilization of the oral health system.		
State: Arkansas	Region: South Region VI	Key Words: Policy, fluoride, fluoridation, testing fluoride level
Abstract: Proper prescription of fluoride supplements requires knowing the background level of fluoride in the drinking water to determine fluoride dosage. Providing testing of home drinking water is an assurance activity for oral health programs. Because no such program existed in Arkansas, the new state dental director initiated the program by developing policy within the state health department to realize this goal. Various divisions within the health department were brought together to gain support for the policy, to make revisions in current guidelines and work practices, and to finalize the policy within the department's structure.		
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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

In October of 1999, the new Office of Oral Health began to work on community water fluoridation activities (after two years without leadership and activity since the retirement of the previous dental director). While focusing on the initiation and maintenance of water fluoridation programs, the initiative also needed to work with physicians and dentists on prescribing proper fluoride supplement dosages in non-fluoridated areas of the state. The fluoride supplement dosage schedule is based on knowing the background level of fluoride in the primary drinking water. However, no central resource existed in the state to provide the background level of fluoride.

Justification of the Practice:

Over-prescribing of fluoride supplements has often been implicated in cases of fluorosis (defects in the tooth surface enamel that range from white specks or streaks to discoloration and pitting). Prescribing supplements without knowing the level of fluoride in the drinking water supply, or thinking the level is lower than it is, leads to excess fluoride intake resulting in fluorosis.

Administration, Operations, Services, Personnel, Expertise and Resources:

The Office of Oral Health prepared a draft policy to initiate a fluoride testing program. The State Health Laboratory, the agency responsible for water testing, was involved in developing needed work practice changes to implement the program and for their input on the policy language. The laboratory also had to approve the testing application form to be sent from dentists and physicians. Various management levels within the department approved the new policy.

Announcement of the new testing program was sent to dentists and physicians and offered an opportunity to educate providers about excess fluoride intake. Equally important was the inclusion of a state map showing where the fluoridated communities were located. Professionals were urged to use the new testing service and prescription guidelines for non-fluoridated communities, as well as to explore community water fluoridation, a proven public health measure, if their communities were not fluoridated.

The laboratory implemented new work practices to process the test requests. The Office of Oral Health became the focal point for receiving test requests, sending out sample bottles, receiving samples, checking paperwork for completeness, conveying samples to the laboratory, receiving the test results from the lab and notifying the submitting provider. The first year of the program had a total of 18 inquiries and 7 samples submitted for testing. Feedback from participating dentists and physicians has been extremely supportive.

Budget Estimates and Formulas:

The policy development for fluoride testing requires no funding beyond personnel time. However, budgetary concerns are addressed in deciding how to fund the testing and processing of the water samples. Due to the expected low volume of testing requests at any given time for the program, and the importance of obtaining accurate fluoride testing levels, the Office of Oral Health was able to negotiate with the State Health Laboratory to make the testing cost-free to providers.

Lessons Learned and/or Plans for Improvement:

Prior to the program start-up, the exact number of test requests expected in a given time period was unknown. The use of this service has been far less than expected. While this is a budget bonus, the laboratory management was initially discouraged with the lack of provider participation. To alleviate anxiety in the laboratory management, efforts might have taken place before announcement of the program to determine the level of use. After one year, the test requests have remained constant and personnel are able to plan testing on an appropriate schedule.

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

- Arkansas Department of Health Policy on Fluoride Testing for Private Well and Spring Water Sources
- Arkansas state map showing fluoridated communities

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

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

Proper prescribing of fluoride supplements is impossible without knowing the background level of fluoride in the source drinking water. The testing service provides that information, while at the same time provides important information on community water fluoridation and the importance of fluorides to health care professionals that can help influence local and state policy makers.

Efficiency

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

Policy development requires no budget beyond personnel time to draft, acquire input/feedback and obtain approval. However, initiation of the testing program did require budgetary decisions for implementing work practices to provide this important service to citizens free of charge.

Demonstrated Sustainability

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

The program is sustainable as long as the laboratory agrees to provide the service free of charge to citizens. Without this commitment, the Office of Oral Health is poised to fund fluoride testing. The program is easily replicated in every state with dental public health and public health lab resources.

Collaboration / Integration

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

Development of the policy required diverse programs within the health department to address a single problem. This collaboration helped to institutionalize the fluoridation program and to create new partners in promoting this proven public health measure. Notifying dentists and physicians across the state provided additional opportunities to provide information to various healthcare providers on the importance of fluoride.

Objectives / Rationale

Does the practice address Healthy People 2010 objectives, the Surgeon General's Report on Oral Health, and/or building basic infrastructure and capacity?

Development of the new testing policy provided a nexus for increased community water fluoridation along with encouraging appropriate fluoride supplementation.

Extent of Use Among States

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

The ASTDD State Synopsis showed that in 1999-2000, 47 states and 4 territories reported having a community water fluoridation program. Although it is not known which states offer fluoride water testing free of charge, many of the states do test the fluoride levels of the community water supplies.