



Dental Public Health Activities & Practices

Practice Number: 39001
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SECTION I: PRACTICE OVERVIEW		
Name of the Practice: Oklahoma Water Fluoridation Program		
Public Health Functions: Policy Development – Oral Health Program Policies Assurance – Population-based Interventions Assurance – Building Linkages and Partnerships for Interventions Assurance – Building Community Capacity for Interventions		
HP 2010 Objectives: 21-9 Increase persons on public water receiving fluoridated water. 21-1 Reduce dental caries experience in children. 21-2 Reduce untreated dental decay in children and adults.		
State: Oklahoma	Region: Region VI	Key Words: Fluoridation, community water fluoridation, prevention
Abstract: The Oklahoma State Department of Health, Dental Health Service, administers a community water fluoridation program. The state dental director and an administrative officer share the demands and duties of the program. The community water fluoridation program promotes fluoridation to the public, supports communities to become fluoridated, provides start-up costs for initiating fluoridation that includes the purchase of equipment, and collaborates with the Department of Environmental Quality in monitoring compliance related to water fluoridation. In 1992, Oklahoma only had 58% of the population that receives their water from public water systems getting optimally fluoridated water. In 2001, that percentage is up to 74.6%. Furthermore, the efforts of the fluoridation program have resulted in the development of a coalition of supporters for fluoridation including the state medical association, the state dental association, PTA groups, nursing groups, private practice dentists, physicians and other healthcare providers, and local community leaders. The program has also successfully collaborated with numerous organizations, including the Oklahoma Medical Association and Public Health Association to develop their resolutions supporting the benefits and implementation of fluoridation.		
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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The community water fluoridation program, initiated in the early 1950's, has always been a part of the Oklahoma oral health program. However, there has not been a consistent funding source to support fluoridation activities. In the early 1980's, the state received fluoridation dollars from CDC. In FY2000, funding was secured with state-appropriated dollars to help pay some or all of the initial start-up costs. This achievement was a result of a collaborative effort by the Commissioner of Health, the state dental association, Oklahoma dentists and the state dental director.

Justification of the Practice:

Scientific evidence documents the effectiveness of water fluoridation. Most recently, as reported by the MMWR of August 2001, a special Task Force in developing a Guide for Community Preventive Services strongly recommended water fluoridation after a systematic review of scientific evidence on water fluoridation's effectiveness.

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

Oklahoma State Department of Health, Dental Health Services' personnel (the state dental director and an administrative officer), in cooperation with county health departments, the Oklahoma Dental Association and other partners administer the community water fluoridation program. The program includes the following activities:

- (1) Promote water fluoridation to the public and policy makers.
- (2) Support of communities to obtain fluoridation of their community water. Program activities are developed based specifically for a community and its needs in passing fluoridation legislation or preventing defluoridation. Efforts include the state dental director enlisting health authorities and local leaders to support fluoridation, providing testimony at city council meetings, working with citizen groups, and letter writing campaigns.
- (3) Provide financial support to communities in starting up fluoridation. The program provides partial or full start-up costs that include the fluoridation and testing equipment, fluoride chemicals for the first year, a permit for fluoridation, engineering and installation.
- (4) Maintain a coalition of fluoridation supporters including the state medical association, state dental association, state public health association, private practicing dentists, physicians and other healthcare providers, PTA groups, nursing groups and community leaders.
- (5) Work with agencies, organizations and associations to develop their resolutions or policy statements supporting water fluoridation. Both the Oklahoma Medical Association and Public Health Association have established such resolutions.
- (6) Collaborate with the Department of Environmental Quality and provide technical support and education for fluoridation. The program promotes the CDC fluoridation training for the water engineers. The state dental director meets regularly with this Department.
- (7) Participate in the CDC's Water Fluoridation Reporting System (WRFS), a surveillance database.

Budget Estimates and Formulas of the Practice:

The state has appropriated \$100,000 per year for the program – approximately \$25,000 devoted to start-up costs for each water system.

Lessons Learned and/or Plans for Improvement:

The Oklahoma Water Fluoridation Program is very successful. In a ten-year period, the program has supported efforts that resulted in approximately a 17% increase in the population served by optimally fluoridated water, 58% in 1992 to 74.6% in 2001 (over 2.1 million people).

Strategies to successfully achieve fluoridation for a community must be developed specific for each community's need. Other health authorities such as the state medical association, in addition to dental experts, can be very influential in supporting fluoridation. Having a good collaborative partnership with the Department of Environment Quality (who has the legal authority of overseeing compliance related to fluoridation) has provided many benefits in promoting and implementing water fluoridation. State appropriated dollars for fluoridation results in fewer restrictions in the use of the funding and provides flexibility in how best to use the funding to support specific needs of a community in initiating fluoridation.

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

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)?

The Oklahoma Water Fluoridation Program has been very effective. In 1992 Oklahoma only had 58% of the population receiving water from public water systems with optimally fluoridated water. In 2001 that percentage reached 74.6% (over 2.1 million people). In addition, the program has built a strong coalition of fluoridation supporters that includes key health authorities. Furthermore, the program has successfully worked with organizations to develop their resolutions and policy statements supporting water fluoridation.

Efficiency

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

Community water fluoridation is very cost-effective and well documented in the scientific literature. Researchers from the CDC and Terry College of Business, University of Georgia, found that under typical conditions, the annual per person cost savings in fluoridated communities ranged from \$16 in very small communities (<5,000) to nearly \$19 for larger communities (>20,000). The analysis takes into account the costs of installing and maintaining necessary equipment and operating water plants, the expected effectiveness of fluoridation, estimates of expected carious lesions in non-fluoridated communities and treatment of caries, and time spent visiting the dentist for treatment.

Demonstrated Sustainability

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

The Oklahoma Water Fluoridation Program was started in the early 1950's and has demonstrated sustainability. In FY2000, the program acquired state appropriated funding of \$100,000 per year, which will further sustain the program and help communities with their start-up costs in fluoridating their community water.

Collaboration/Integration

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

The program builds collaboration and integrates oral health with other health projects. The program has successfully developed a coalition of fluoridation supporters including the county health departments, the state dental association, the state medical association, the state public health association, PTA groups, nursing groups, private practice dentists, physicians and other health providers, community leaders, and citizens.

Objectives/Rationale

Does the practice address HP 2010 objectives, the Surgeon General's Report on Oral Health, and/or build basic infrastructure and capacity for state/territorial oral health programs?

The Oklahoma Water Fluoridation Program supports efforts to address HP 2010 objectives and the Surgeon General's Report on Oral Health by increasing the proportion of the population served by community water systems with optimally fluoridated water and providing the benefits of fluoridation in preventing dental decay, thereby lowering the cost of dental care and reducing disparities in preventing dental decay among different socioeconomic, racial and ethnic groups.

Extent of Use Among States

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

ASTDD State Synopsis shows that in 2001, 51 states including District of Columbia have programs for fluoridated community water supplies. Oklahoma may be the only state that has state

appropriated money for funding the initial cost of fluoridation equipment for water systems that fluoridate.