

Dental Public Health Activity Descriptive Report

Practice Number: 28004
Submitted By: Oral Health Program, Missouri Department of Health and Senior Services
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SECTION I: PRACTICE OVERVIEW		
Name of the Dental Public Health Activity: Community Water Fluoridation Program		
Public Health Functions: Assessment – Use of Data Policy Development – Oral Health Program Policies Policy Development – Oral Health Program Organizational Structure and Resources Assurance – Oral Health Communications Assurance – Building Population-based Interventions		
Healthy People 2020 Objectives: OH-1 Reduce the proportion of children and adolescents who have dental caries experience in their primary or permanent teeth 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-13 Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water		
State: Missouri	Federal Region: Midwest Region VII	Key Words for Searches: Fluoridation, community water fluoridation, fluoridated water supply
Abstract: The Centers for Disease Control and Prevention recognizes community water fluoridation as one of the 10 most important public health advances of the 20th Century. The Missouri Department of Health, Oral Health Program administers the Community Water Fluoridation Program, funded by an MCH Block Grant, since the 1960's. The mission of the program is to maintain and monitor the current communities that adjust their fluoride to the optimal level and to have new communities fluoridating each year. The program collaborates extensively with the Department of Natural Resources, Public Drinking Water Program and works closely with their state fluoridation engineer. Currently, 107 communities fluoridate their water supply. Approximately 77% of Missourians utilizing public water supplies receive optimally fluoridated water.		
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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

Missouri's water fluoridation efforts have been in existence since the 1960's, with the State Department of Health providing support to communities. Missouri has no state mandate to fluoridate water, and currently does not have a program funded by state general revenue. Funds for current

initiatives are received through the Centers for Disease Control and Prevention's, Preventive Health and Health Services (PHHS) Block Grant.

Justification of the Practice:

The Association of State and Territorial Dental Directors' Guidelines for State and Territorial Oral Health Programs (July 1997) refers to community water fluoridation as essential in both the core public health functions of assessment and assurance. The Centers for Disease Control and Prevention (CDC) reports community water fluoridation as one of the 10 most important public health advances of the 20th Century. In the Guide to Community Preventive Services, the Task Force on Community Preventive Services (an independent, non-federal Task Force with multi-disciplinary representatives) strongly recommends community water fluoridation as a population-based and public health intervention based on the strength of the evidence of effectiveness found during systematic reviews.

Inputs, Activities, Outputs and Outcomes of the Practice:

The Missouri Department of Health and Senior Services, Oral Health Program supports the practice of water fluoridation with coordination and advocacy provided by the State Dental Director. Key services of the program include promoting fluoridation through education for communities, providing technical support for water plants to initiate the process, tracking the fluoride content of all community water supplies in the state, and participating in the CDC's Water Fluoridation Reporting System (WFRS). The program provides fluoridation equipment at no cost to the community starting fluoridation and in some situations provides replacement equipment. One form of communication of the state's fluoridation status is the use of a color map that graphically displays all natural and adjusted water supplies with the names of their water systems. The program collaborates extensively with the Department of Natural Resources, Public Drinking Water Program, where the state fluoridation engineer is located. Further, the program contracts with the Drinking Water Program to train water plant operators and monitor fluoridation installations and follows the CDC's engineering and administrative recommendations for water fluoridation (1995). As of December 2014, Missouri has 108 communities fluoridating their water supply, which combine to include nearly 77% of the population served by public water systems.

Budget Estimates and Formulas of the Practice:

The Missouri Oral Health Program utilized approximately \$400,000 through the PHHS Block Grant to provide funding for equipment and supplies to current and newly fluoridating communities throughout Missouri. Through December 2014, 17 communities have taken advantage of the opportunity for funds to replace and install new equipment.

Lessons Learned and/or Plans for Improvement:

Community Water Fluoridation is an integral part of Missouri's Oral Health Program, and provides one of the most effective and efficient means of prevention of dental caries. Missouri reached the HP 2000 and HP 2010 goal of 75% of the population on fluoridated community water supplies in 1998. Missouri's current goal for water fluoridation is 80% of the population on community water supplies by 2020.

Available Information Resources:

Association of State and Territorial Dental Directors (ASTDD). Guidelines for State and Territorial Oral Health Programs. July 1997.

Centers for Disease Control and Prevention. Engineering and Administrative Recommendations for Water Fluoridation, 1995. MMWR September 29, 1995/44 (RR-13);1-40.
(<http://www.cdc.gov/epo/mmwr/preview/mmwrhtml/00039178.htm>)

Centers for Disease Control and Prevention. Achievements in Public Health, 1900-1999: Fluoridation of Drinking Water to Prevent Dental Caries. MMWR Oct. 22, 1999 / 48(4);933-940. (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4850a1.htm>)

Guide to Community Preventive Services (http://www.thecommunityguide.org/home_f.html)
Missouri Fluoridation Status Map 2013. Missouri Department of Health, Oral Health Program. <http://health.mo.gov/living/families/oralhealth/pdf/fluoridationmap.pdf>

SECTION III: PRACTICE EVALUATION INFORMATION

Impact/Effectiveness

How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?

Missouri reached the HP 2000 and HP 2010 goal of 75% of the population on fluoridated community water supplies in 1998. As of 2014, Missouri has nearly 77% of its population served by fluoridated community water supplies. Missouri's current goal for water fluoridation is 80% of the population on community water supplies by 2020. In the Guide to Community Preventive Services, the Task Force on Community Preventive Services (an independent, non-federal Task Force with multi-disciplinary representatives) strongly recommends community water fluoridation as a population-based and public health intervention based on the strength of the evidence of effectiveness found during systematic reviews.

Efficiency

How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.

Community water fluoridation (CWF) is a safe and effective way to prevent tooth decay. It is also the most cost effective way to provide protection from cavities to individuals of all ages and socioeconomic groups. The Oral Health Program integrates activities related to community water fluoridation within the duties of the existing Oral Health Program.

Demonstrated Sustainability

How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?

Missouri's Community Water Fluoridation Program has been active since the 1960's. Having funding to purchase new and replacement fluoridation equipment sustains the capacity of the program to initiate fluoridation in communities annually. Integrating the program activities into the duties of the state oral health program's staff also contributes to the program sustainability.

Collaboration/Integration

How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?

The program has built a good partnership with the Department of Natural Resources, Public Drinking Water Program. The two programs collaborate extensively to implement and monitor fluoridation in the state. Collaborations with the Missouri Dental Association, the Missouri Coalition for Oral Health and Local Public Health Agencies around the state have been critical to the ongoing success of water fluoridation in Missouri. Through these collaborations we have been able to quickly gather local

governmental support, the support of local and state level dentists and dental establishments, and have quick, pro-fluoride responses via media outlets. Each partner has taken a role that is mutually beneficial to the goal of fluoridation and is within the scope of their operations. In a number of cases, such as in the city of Columbia with a population of more than 100,000, these collaborations have been critical to sustaining water fluoridation efforts.

Objectives/Rationale

How has the practice addressed HP 2020 objectives, met the National Call to Action to Promote Oral Health, and/or built basic infrastructure and capacity for state/territorial/community oral health programs?

HP 2020 calls for increasing persons on public water receiving fluoridated water. The Surgeon General's Report on Oral Health recognizes community water fluoridation as an effective, safe, and ideal public health measure that benefits individuals of all ages and socioeconomic strata. The Report also recognizes the need for further efforts over the next decade to increase persons receiving the benefits of fluoridated water. Promoting community water fluoridation is an essential dental public health service for state/territorial oral health programs.