

Dental Public Health Activity Descriptive Report

Practice Number: 12008
Submitted By: Oral Health Program, Georgia Department of Public Health
Submission Date: January 2015
Last Updated: January 2015

SECTION I: PRACTICE OVERVIEW		
Name of the Dental Public Health Activity: Educating Water Plant Operators		
Public Health Functions: Assessment – Acquiring Data Assessment – Use of Data Policy Development – Collaboration and Partnership for Planning and Integration Policy Development – Use of State Oral Health Plan Policy Development – Oral Health Program Organizational Structure and Resources		
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-4 Reduce the proportion of adults who have ever had a permanent tooth extracted because of dental caries or periodontal disease OH-13 Increase the proportion of the U.S. population served by community water systems with optimally fluoridated water		
State: Georgia	Federal Region:	Key Words for Searches: Prevention, fluoridation, community water fluoridation, water operators, fluoridation education
Abstract: Georgia began adjusting the fluoride level of community water on May 27, 1951 in Athens, GA. Georgia implemented mandatory fluoridation in 1965 and is one of thirteen states with mandatory fluoridation laws. Community water systems are required to adjust the fluoride level to 0.85 mg/L within an optimal range of 0.7 – 1.0 mg/L. Once a system begins adjusting their fluoride level, a local referendum is required to cease adjusting the fluoride level. The Department of Natural Resources (DNR) and the Department of Public Health (DPH), Oral Health Program (OHP) oversee the Community Water Fluoridation (CWF) program. The DPH OHP contracts with the Georgia Rural Water Association (GRWA) to help with monitoring, evaluation, and engineering concerns for the CWF program. Currently over 96% of Georgian’s, 10 million people, enjoy access to the benefits of fluoridated water, with about 575 community water systems either adjusting their fluoride level within the optimal range, reporting a natural level of fluoride within the optimal range, or being a consecutive system from an adjusting system. All of the larger urban water systems in Georgia adjust their fluoride within the optimal range. The systems not adjusting are very small mostly rural systems totaling less than 4% of the population, approximately 375,000 people. The OHP and GRWA have collaborated to not only achieve the Healthy People (HP) 2010 goals for CWF; they have now achieved the HP 2020 goals as well. Maintenance of water fluoridation along with the improved quality of fluoridation operations in community water systems has been assisted by a long-running contract with the Georgia Rural Water Association (GRWA) and since 2010 with a Fluoridation Specialist hired when the OHP received federal funding from the Centers for Disease Control and Prevention (CDC). GRWA assists with the evaluation of water systems on fluoridation, compliance monitoring, and has provided the engineering connection with water operators. When an across-the-board reduction in state funds threatened the contract with the GRWA the Maternal Child Health Title V Block Grant (Title V) was utilized to maintain the contract and collaboration with GRWA for the community water fluoridation		

program.

The OHP also uses the CDC Grant and additional Title V funding to sustain a full time Fluoridation Specialist who provides technical assistance to local public health departments, water system personnel, policymakers, health providers, other state departments, as well as the public. The Fluoridation Specialist collaborates with the GRWA for state wide fluoridation training of water operators.

CWF program activities include surveillance, education, and compliance monitoring. The OHP and GRWA monitor the fluoridation status of every system in the state and the performance of those systems adjusting their fluoride level. The program maintains records of fluoridation status for all community water systems and receives and records all fluoride level testing results in the Water Fluoridation Reporting System (WFRS). The program also follows up on variant fluoride readings and notifies noncompliant systems regarding monthly and daily testing issues. The fluoridation specialist and GRWA provide educational training classes and present information at water association meetings to water system personnel and other key stakeholders. Water systems are also recognized through an award program for systems in perfect or near perfect compliance with CDC water fluoridation quality awards and the Association of State and Territorial Dental Directors (ASTDD) longevity fluoridation awards. Program staff continuously evaluates the fluoridation program performance as related to national Healthy People 2020 objectives.

Georgia has found educating water plant operators is an important piece of maintaining a quality CWF program along with the collaborative aspects of working with GRWA. Our state objectives are to maintain the present level of CWF in Georgia, increase the populations served by community water systems with optimal levels of fluoride, and increase the compliance of system monitoring and reporting. The OHP anticipates working with communities throughout the state to identify those most in need of updating and repairing fluoridation equipment and for new equipment start-ups with funding from the contract with the GRWA. In case of an emergency or technical difficulty a GRWA employee can be at the facility the same day to address the issue. The Georgia state lab receives the monthly split samples and tests them for accuracy and compliance.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The contract with GRWA for administration of community water fluoridation was first developed in 1997 with state funding; soon after the state funding was replaced with funding from the Preventive Health and Health Services Block Grant. In 2008 funding was changed to partially state funded and partially the Title V Block Grant. The contract with GRWA has provided engineering support for the water plants and OHP and assisted the quality of fluoridation education to water operators provided by the program. When state funding was cut across the board in 2010 CWF came solely under the Title V Block Grant and the contract for GRWA was maintained with use of Title V Block Grant funding. CWF is well supported in Georgia and funding has always been made available. In February 2010, the Georgia DPH was able to hire a Fluoridation Specialist after receiving funding in a CDC infrastructure grant. Hiring the Fluoridation Specialist was a major step forward in management of CWF by allowing for staff dedication to fluoridation monitoring and increased interaction with water operators for training and feedback on fluoridation compliance from daily/monthly water operator reports on

fluoride concentration for water fluoridation. The GRWA contract has continued to be supported with the MCH Title V Block Grant and there are no plans to change this support at this time.

Justification of the Practice:

The GRWA has assisted with the OHP connection to water operators in Georgia. Additionally, the contract with GRWA provides engineering expertise to the water systems and OHP. Without dedicated staff to work on fluoridation management the CWF Program experienced increased problems with water system reporting on fluoridation and fewer water systems qualified for the CDC Water Fluoridation Quality Awards. Each year the CDC in conjunction with the ASTDD give water systems throughout the United States awards for properly maintaining the CWF program at their facility by consistently keeping fluoride levels within the suggested range and reporting to the state FS each month. There is also an award for those systems maintaining a CWF program for 50 years. The hiring of the Fluoridation Specialist in 2010 increased monitoring of water operator reports, provided feedback to water operators, and increased fluoridation training for water operators. The resulting personal relationship with water operators provided by face-to-face meetings and ongoing communication has increased the overall quality of the CWF Program.

Inputs, Activities, Outputs and Outcomes of the Practice:

The Fluoridation Specialist, in collaboration with GRWA, began holding classes for water plant operators to education them on the preventive benefits of CWF. GRWA staff continues to lead on the engineering components of CWF. The tables below highlight the trainings (activities) and outputs (number of water systems with CDC quality awards):

Year	Operators trained	Number of sessions
2010	169	Seven
2011	119	Four
2012	118	Four
2013	86	Four
2014	121	Six
2015	As yet to be determined	Six

Year	Number of CDC Quality Awards for Georgia
2004	55
2005	58
2006	78
2007	160
2008	Unknown
2009	54
2010	164
2011	177
2012	163
2013	158
2014	No final number yet

Since 2005 Georgia has consistently had 96% or higher for the number of citizens with the opportunity to benefit from the CWF program. However, as the table above indicates the Georgia CWF Program has resumed and maintained a higher number of systems qualifying for CWF Quality Awards with the water operator training by the Fluoridation Specialist and GRWA implemented in 2010.

Budget Estimates and Formulas of the Practice:

The annual contract with GRWA is \$170,000 and is supported with MCH Title V Block Grant funding. The funding for the Fluoridation Specialist comes from CDC grant funding (0.5 FTE) and MCH Title V Block Grant funding (0.5 FTE). CDC funding supports the Fluoridation Specialist for state wide water

operator training and fluoridation education activities. Materials utilized for water operators training are taken from the CDC water fluoridation training manual.

Lessons Learned and/or Plans for Improvement:

The addition of a Fluoridation Specialist in the OHP increased fluoridation compliance including requirements for optimal fluoridation standards in the CWF program. The personal attention given to each water system by the Fluoridation Specialist, and collaboration with GWRA, has improved communication with local water systems and compliance with water fluoridation guidelines. The one-on-one and face-to-face attention with this approach has proven to be the best incentive in working with Georgia water systems. While many water system personnel have considerable experience and competencies, there is significant turnover of water plant operators. With the high turnover rate, maintaining good communication with the state office, education on the value of water fluoridation, and support with reporting has improved the program.

Having a personal relationship with the water operators and the acknowledgements of their work with water fluoridation makes a difference. Lack of a Fluoridation Specialist meant less contact with water operators and resulted in problems with fluoridation reporting. The Fluoridation Specialist and GRWA contract have been critical in addressing reporting issues, improving compliance, and increasing the overall quality of water fluoridation in Georgia.

Available Information Resources:

WFRS and EPD (www.gadrinkingwater.net)

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)?

In 2010, the number of Georgia water systems eligible for CDC quality awards increased to levels at or above the previous 2007 peak level. The number of systems meeting this criterion has remained relatively stable through 2013.

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.

Collaboration with GRWA under the contract increases the likelihood of higher attendance by water operators in the fluoridation training classes. GRWA can provide assistance with the training on the engineering and/or technical aspects of community water fluoridation during the trainings in addition to the administrative, reporting, and oral health aspects of training provided by the Fluoridation Specialist.

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?

Once water systems implement CWF the systems continue unless a local referendum is held to end fluoridation. The ongoing connection with water operators may assist in maintaining fluoridation at least in terms of the OHP education activities at water operator trainings and the open lines of communication with the water systems as a result of the trainings and collaboration with GRWA. Further, the training and education activities of the OHP have increased the number of local citizens who can speak to water fluoridation should local opposition activities emerge. Since 2010, there has been only one successful local referendum and that was during this last election (Nov 2014).

The GRWA contract is sustainable through MCH Title V Block Grant funding. The importance of this collaboration is illustrated by use of MCH Title V Block Grant funding to maintain the contract when state funding for the contract was reduced in across the board budget reduction measures in 2010. The Fluoridation Specialist position is currently sustained with the awarding of a new CDC grant through 2018.

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?

In 2010, the Arkansas Department of Health included "Securing Community Water Fluoridation" as a priority in the list of its strategic goals. As such, the over 5,000 employees of the health department became aware of oral health and its far-reaching effects on general overall health. The Fluoride Action Team (FAT) (later changed to the Fluoride Implementation Team after passage of the ACT) was established and composed of department leaders from all branches. Leaders from the engineering department, County Health Units, Chronic Disease Branch, Legal and Legislative department and more met every two weeks to discuss the progress of the bill and the strategies needed to insure its passage. The attention and emphasis brought to oral health by this department-wide effort to pass the community water fluoridation bill has solidified the Office of Oral Health's position within the Arkansas Health Department and has brought department-wide awareness of oral health's role in overall health.

In addition, community water fluoridation was the goal and purpose that originally united the various members of the Arkansas Oral Health Coalition. With over 35 members, the coalition played a big role in securing passage of the community water fluoridation bill. With a common purpose, stakeholders (Partners for Inclusive Communities, Arkansas State Dental Association, Arkansas State Dental Hygienists' Association, Arkansas Advocates for Children and Families, Arkansas Children's Hospital, to name a few) concerned with the oral health status of Arkansans joined together to forge a strong, closely knit coalition, integrating and solidifying the recognition of the role oral health plays in general overall health. Through its diverse membership and adoption of the common goal of fluoridation of Arkansas's drinking water, the coalition has demonstrated that collaborations established through an effort of this kind are solidly integrated and are highly effective, efficient and sustainable.

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?

The activity highlights the unique collaboration between the Georgia OHP and GRWA. This relationship has improved the efficiency and effectiveness of water operator training on fluoridation, collection of water operator reports and overall quality of the CWF program.

Additionally, the fluoridation management and water operator training activities have strengthened relationships with the Environmental Protection Division (EPD), Georgia Dental Association (GDA), Georgia Dental Hygienists' Association (GDHA), Centers for Disease Control and Prevention (CDC), Department of Public Health (DPH), Georgia Rural Water Association (GRWA), and Georgia Oral Health Coalition (GOHC).

Objectives/Rationale

Georgia exceeds HP2020 benchmarks and the approach of the OHP activities has improved the quality of water fluoridation in Georgia's fluoridating water systems.