Educating Water Plant Operators

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.

**Lessons Learned:**

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.

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