The Rhode Island Department of Health (RIDOH) has taken into account the extensive research done on community water fluoridation since its inception and has formulated the following statement in response to claims of the practice being harmful to the public. This document provides a brief overview of the safety and efficacy of community water fluoridation as a public health practice to reduce the incidence of dental decay. It must be pointed out that this document is intended to be brief in nature and does not encompass the entire body of scholarly work on water fluoridation that overwhelmingly supports both the effectiveness and safety of community water fluoridation as a proven public health practice.

Water safety is defined and determined by federal, state, and local regulations. The main federal law that ensures the quality of Americans’ drinking water is the Safe Drinking Water Act (SDWA). Under SDWA, the U.S. Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. Our understanding about the safety of fluoridation is guided by federal regulations, comprehensive reviews conducted by expert panels, and individual studies. Some of those reviews and studies have been conducted by:

- National Health and Medical Research Council, Australian Government (2007)\(^1\)
- World Health Organization (1994, 1996, 2006)\(^4-6\)
- Agency for Toxic Substances and Disease Registry, U.S. Public Health Service (2003)\(^7\)
- International Programme on Chemical Safety, W.H.O. (2002)\(^8\)
- Forum on Fluoridation, Ireland (2002)\(^9\)
- Medical Research Council, U.K. (2002)\(^10\)
- University of York, U.K. (2000)\(^11\)
- Institute of Medicine, U.S.A. (1999)\(^12\)
- Health Canada (1999)\(^13\)
- Lewis and Banting, Canada (1994)\(^14\)
- U.S. Public Health Service (1991, 2015)\(^15\)

The effectiveness of water fluoridation has been documented in scientific literature for over 50 years. Since the introduction of fluoridation in 1945, numerous studies have been published making it one of the most widely studied public health measures in history. Studies prove water fluoridation continues to be effective in reducing tooth decay by 20-40%, even in an era with widespread availability of fluoride from other sources, such as fluoride toothpaste.

In August 2002, the U.S. Task Force on Community Preventive Services (Task Force) concluded that the evidence for the effectiveness of fluoridation is strong based on the number and quality of studies that have been done, the magnitude of observed benefits and the consistency of the
findings. The Task Force issued a strong recommendation that water fluoridation be included as part of a comprehensive population-based strategy to prevent or control tooth decay in communities. Additional documentation of this recommendation is listed below.


- The Centers for Disease Control and Prevention (CDC) has proclaimed community water fluoridation as one of 10 great public health achievements of the 20th century. http://www.cdc.gov/about/history/tengpha.htm

In addition to the listed documentation above, below are seventeen (17) scholarly articles (with links to the original article) that echo the fact that properly implemented community water fluoridation is safe and effective. Again, this is only a portion of the large amount of research supporting the safety and efficacy of this public health practice:


Recent opponents of water fluoridation have cited the Lancet Journal’s published article in which two authors claim that fluoride might cause neurodevelopmental harm, a claim based on a single study (Choi, AL, Sun, G, Zhang, Y and Grandjean, P. Developmental fluoride neurotoxicity, a systematic review and meta-analysis. Environ Health Prospect, 2012;120:1362-1368). RIDOH would refer these individuals to a response letter from two oral health professionals that was also published in the Lancet Journal and available at the following web-link: http://www.thelancet.com/journals/lanjur/article/PIIS1474-4422(14)70119-X/fulltext?hc_location=ufi. Their response addresses the various confounding variables that were not taken into account in the original meta-analysis and points to many various flaws in the study design that regularly leads to misuse and misinterpretation of the paper.
To help illustrate the national consensus on community water fluoridation being a benefit for communities, RIDOH recommends viewing the American Dental Association’s “National and International Organizations That Recognize the Public Health Benefits of Community Water Fluoridation for Preventing Dental Decay” List which is too long to include the body of this letter, however, is available at the following web-link: http://www.ada.org/en/public-programs/advocating-for-the-public/fluoride-and-fluoridation/fluoridation-facts/fluoridation-facts-compendium. This list shows over one hundred (100) national and/or international organizations that have recognized community water fluoridation as beneficial to the oral health of a population.

In conclusion, the large weight of scientific evidence shows that community water fluoridation is a safe and cost-effective public health intervention that yields substantial impacts in reducing early childhood caries (cavities).

That being said, community water fluoridation is not mandated by the State of Rhode Island or the Federal government, but is rather decided at the local level, with each municipality making their own decision on enacting community water fluoridation. Many Rhode Island municipalities have chosen to make this part of their drinking water supply; however none have been mandated or forced to fluoridate their water by the State or Federal government.

RIDOH continues to support communities that have enacted community water fluoridation as a public health practice and would encourage any communities lacking this proven preventive measure to begin adjusting their water fluoride levels to help prevent dental decay. For further documentation supporting this practice, please direct inquiries to the Oral Health Program’s current Sealant & Fluoridation Coordinator, Veronica Rosa-DaFonseca (v.rosadafonseca@health.ri.gov), or to the Dental Director, Sam Zwetchkenbaum, DDS, MPH (Samuel.Zwetchkenbaum@health.ri.gov)