Fluoridation of Public Water Systems: Federal, State, and Local Roles

This fact sheet was developed by the State Board of Health policy staff as an educational resource for Board Members. It is intended solely for informational purposes and should not be considered or relied upon as legal advice.

Background:

Fluoride is a mineral that occurs naturally in the environment, including in soil, rocks, and water. Most drinking water sources contain some level of fluoride due to natural processes such as the breakdown of rocks and minerals. 1,2 Fluoride may also be added to everyday products like toothpaste and to public drinking water in a controlled way to help prevent tooth decay. 3

Community Water Fluoridation (CWF) is the practice of adjusting fluoride levels in public water systems to help reduce cavities.⁴ While some water systems may have naturally occurring fluoride, other systems choose to add it.⁵ Approximately 64% of the population in Washington State drinks water from a public water system that fluoridates.⁶

Decision-Making Authority for CWF:

- In the U.S., the decision to fluoridate public water systems is made at the state or local level.^{7,8}
- The federal government provides direction and guidance on the safety and effectiveness of CWF.
 - The U.S. Environmental Protection Agency (EPA) sets national safety standards for fluoride in drinking water (4.0 mg/L and 2.0 mg/L) under the <u>Safe Drinking Water Act</u> of 1974 (SDWA).
 - The U.S. Public Health Service (USPHS) recommends the optimal fluoride level in public water systems for systems that choose to fluoridate (currently 0.7 mg/L).
- In Washington State, decisions about whether to fluoridate public water systems are made at the local level, by public water systems or local governments.⁵
- <u>RCW 70.05.060 (3)</u> authorizes local boards of health to enact rules necessary to preserve and improve public health, including whether to require fluoridation of public water systems within their jurisdiction (<u>AGO 2008 No. 5</u>).
- In addition, <u>RCW 57.08.012</u> authorizes fluoridation of a water district's water by a majority vote of water district commissioners.
- If communities choose to fluoridate, they must follow public water system rules set by the Washington State Board of Health (Board).

State Board of Health's (Board) Role:

- State law (RCW 43.20.050) requires the Board to set health and safety standards for public water systems to ensure safe drinking water.
- Under this regulatory authority, the Board:
 - Sets the *optimal fluoride level* for large public water systems (Group A) that choose to fluoridate. This is established in state rule (<u>WAC 246-290-460</u>) and is currently aligned with <u>the U.S. Public Health Service (USPHS) recommendation</u> of 0.7 mg/L (last updated in 2015).

- Adopts the maximum contaminant level (MCL) for fluoride in drinking water (<u>WAC 246-290-310</u>), consistent with federal standards. This determines the highest allowable concentration of fluoride before a water system must take corrective action. The MCL adopted by the Board must be at least as stringent as the MCL established in the SDWA.
- These are two distinct regulatory authorities:
 - The optimal fluoride level supports public health benefits for systems that choose to fluoridate.
 - The MCL addresses potential health risks from fluoride, whether from natural sources or added sources that exceed the optimal level.
- The optimal level is based on guidance from USPHS, while the MCL is based on standards set by the U.S. Environmental Protection Agency (EPA).
- The Board does not require or ban fluoridation in its rules.

Federal Government's Role:

- The federal government's role in regulating water fluoridation is limited.
- The two agencies primarily involved in CWF are: the Environmental Protection Agency (EPA) and the United States Public Health Service (USPHS).
- The federal government does not require communities to add or remove fluoride from drinking water, as long as levels stay below the EPA's Maximum Contaminant Level (MCL) of 4.0 mg/L.
- USPHS does not have the same public health authority as state or local governments to regulate water fluoridation. They only issue guidance. This guidance is not a regulation, and it is not legally binding.

Federal Agencies and their Roles:

U.S. Environmental Protection Agency (EPA)

- Regulates fluoride levels in public drinking water under the 1974 Safe Drinking Water Act (SDWA).⁹
- Sets both primary (enforceable) and secondary (non-enforceable) standards for fluoride in drinking water.⁷
- The primary standard sets the maximum contaminant level (MCL) at 4.0 mg/L to protect against health risks.¹⁰
- The secondary standard sets the MCL at 2.0 mg/L as a guideline, primarily to address cosmetic concerns such as tooth discoloration.¹¹
- Focuses on managing fluoride concentrations that pose health risks, whether naturally occurring or added and exceeding the optimal level.⁷

U.S. Public Health Service (USPHS)

- Part of the U.S. Department of Health and Human Services (HHS), USPHS includes the Centers for Disease Control (CDC), Food and Drug Administration (FDA), and Agency for Toxic Substances and Disease Registry (ATSDR).
- Recommends the *optimal fluoride level* in public water systems that choose to fluoridate (currently 0.7 mg/L) to prevent tooth decay while minimizing health risks.

 Provides guidance and recommendations to support state and local decisionmaking on fluoridation. These are not enforceable standards.^{4,7}

U.S. Food and Drug Administration (FDA)

- Also under HHS oversees the safety and effectiveness of fluoride in consumer products such as toothpaste, mouthwash, and dietary supplements.¹² This authority is granted through the Food, Drug, and Cosmetic Act (FD&C Act).¹³
- Sets labeling and safety standards for fluoride-containing products sold to the public.
- Coordinates with the CDC, EPA, and USDA to ensure product safety and consumer protection under the FD&C Act.
- Regulates fluoride as an over-the-counter drug when it is intended to prevent or treat disease. In the case of fluoride, the disease is tooth decay.^{14,15}
- Regulates fluoride levels in bottled water and ensures that those standards are compatible with EPA regulations for public drinking water. When the EPA sets a new standard for a contaminant, the FDA either adopts the same standard for bottled water or determines it is not necessary.¹⁶
- Regulates fluoride levels in bottled water but does not regulate fluoride in public drinking water—that role belongs to the EPA under the SDWA.

U.S. Department of Agriculture (USDA)

- Oversees farming, food safety, and national nutrition programs.
- Collects and shares data on fluoride levels in food and beverages. 18,19
- Provides dietary guidance through tools like the National Nutrient Database and the Dietary Reference Intakes (DRIs), which consider fluoride intake from food sources.
- Agency does not regulate fluoride in drinking water or consumer products.

¹ Yale School of Public Health. Fluoride's Impact on Health. Fluoride: What to know about fluoride's impact on health. February 2025. Accessed July 22, 2025. https://ysph.yale.edu/public-health-research-and-practice/information-sheets/fluoride/

² US Preventive Services Task Force, Davidson KW, Barry MJ, et al. Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2021;326(21):2172. doi:10.1001/jama.2021.20007

³Centers for Disease Control and Prevention. About Fluoride. Oral Health. May 23, 2024. Accessed July 22, 2025. https://www.cdc.gov/oral-health/prevention/about-fluoride.html

⁴ Centers for Disease Control and Prevention. About Community Water Fluoridation. Community Water Fluoridation. September 12, 2024. Accessed July 22, 2025. https://www.cdc.gov/fluoridation/about/index.html

⁵ Washington State Department of Health EPHO of DW. Fluoridation of Drinking Water. Fluoridation of Drinking Water. n.d. Accessed July 22, 2025. https://doh.wa.gov/community-and-environment/drinking-water/fluoride-drinking-water

⁶Centers for Disease Control and Prevention. 2022 Water Fluoridation Statistics. Community Water Fluoridation. November 19, 2024. Accessed July 22, 2025. https://www.cdc.gov/fluoridation/php/statistics/2022-water-fluoridation-statistics.html

⁷The Network for Public Health Law. Federal Regulation of Fluoride in Drinking Water. Oral Health Fact Sheet. Accessed July 22, 2025. https://www.networkforphl.org/wp-content/uploads/2025/06/Federal-Regulation-of-Fluoride-in-Drinking-Water-1.pdf

⁸ Michaud J, Kates J, Published NN. Water Fluoridation in the U.S.: The Federal Role in Policy and Practice. KFF. December 13, 2024. Accessed July 22, 2025. https://www.kff.org/other/issue-brief/water-fluoridation-in-the-u-s-the-federal-role-in-policy-and-practice/

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⁹ US Environmental Protection Agency O. SDWA Evaluation and Rulemaking Process. January 14, 2020. Accessed July 22, 2025. https://www.epa.gov/sdwa/sdwa-evaluation-and-rulemaking-process

¹⁰ US Environmental Protection Agency O. National Primary Drinking Water Regulations. November 30, 2015. Accessed July 22, 2025. https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations

¹¹US Environmental Protection Agency O. Secondary Drinking Water Standards: Guidance for Nuisance Chemicals. September 2, 2015. Accessed July 22, 2025. https://www.epa.gov/sdwa/secondary-drinking-water-standards-guidance-nuisance-chemicals

¹² Food and Drug Administration. What does FDA regulate? FDA. March 29, 2024. Accessed July 22, 2025. https://www.fda.gov/about-fda/what-we-do/what-does-fda-regulate

¹³Library of Congress. Enforcement of the Food, Drug, and Cosmetic Act: Select Legal Issues. February 9, 2018. Accessed July 22, 2025. https://www.congress.gov/crs-product/R43609

¹⁴ Food and Drug Administration. Classification of Products as Drugs and Devices and Additional Product Classification Issues. May 12, 2021. Accessed July 22, 2025. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/classification-product-drugs-and-devices-and-additional-product-classification-issues

¹⁵ Food and Drug Administration. Is It a Cosmetic, a Drug, or Both? (Or Is It Soap?). FDA. September 11, 2024. Accessed July 22, 2025. https://www.fda.gov/cosmetics/cosmetics-laws-regulations/it-cosmetic-drug-or-both-or-it-soap

¹⁶ Food and Drug Administration. Bottled Water Everywhere: Keeping it Safe. Food and Drug Administration. April 22, 2022. Accessed July 22, 2025. https://www.fda.gov/consumers/consumer-updates/bottled-water-everywhere-keeping-it-safe

¹⁷ U.S. Department of Agriculture. About USDA. n.d. Accessed July 22, 2025. https://www.usda.gov/about-usda/general-information/our-agency

¹⁸ U.S. Department of Agriculture. USDA National Fluoride Database of Selected Beverages and Foods - Release 2 (2005). Published online April 23, 2015. doi:10.15482/USDA.ADC/1178143

¹⁹ U.S. Department of Agriculture. Fluoride: USDA National Fluoride Database of Selected Beverages and Foods - Release 2 (2005). USDA Agricultural Research Service: Methods and Application of Food Composition Library. January 30, 2020. Accessed July 22, 2025. https://www.ars.usda.gov/northeast-area/beltsville-md-bhnrc/beltsville-human-nutrition-research-center/methods-and-application-of-food-composition-laboratory/mafcl-site-pages/fluoride/