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ORAL HEALTH

Fact Sheet

Federal Regulation of Fluoride in Drinking Water

Overview

The U.S. Centers for Disease Control and Prevention (CDC) has identified community water fluoridation as one of the ten great public health achievements of the 20th century.[1]

Dental caries (tooth decay) is the most prevalent chronic disease among children and adults globally.[2] According to the World Health Organization, "[a]dequate exposure to fluoride is an essential factor in the prevention of dental caries." Community water fluoridation is considered the most efficient way to prevent cavities.[3] Community water fluoridation is a passive public health intervention that provides ready access to fluoride to all individuals "regardless of their access to dental care or their ability to routinely participate in home oral hygiene practices."[4]

Appropriate exposure to fluoride generates many health benefits while posing virtually no risk. Community water fluoridation protects individuals of all ages against cavities, preventing at least 25 percent of cavities.[5] According to the CDC, children living in communities with water fluoridation programs have on average 2.5 fewer decayed teeth compared to children living in communities without water fluoridation.[6] Additionally, community water fluoridation is cost-effective. Researchers estimate that just one year of water fluoridation in the United States would save an estimated $6.5 billion in prevented direct and indirect dental treatment costs.[7]

Community water fluoridation is necessary for cavity prevention, particularly for children. After Calgary, Canada discontinued its fluoridation program in 2011, the prevalence of cavities in children significantly increased.[8] Similarly, after Juneau, Alaska ceased its fluoridation program in January 2007, researchers found a statistically significant increase in the number of dental caries procedures and associated treatment costs among children on Medicaid by 2012.[9] These increases in cavities occurred "even in modern conditions with widely available fluoride toothpaste, rinses, and professionally applied prophylaxis."[10] Cessation of community water fluoridation has negative health ramifications beyond the cavities themselves, including increases in the number of children requiring IV antibiotics or needing operative dental care under general anesthesia.[11]

Fluoride ingestion at an optimal level of 0.7 mg/L is safe. Fluoride ingestion at higher concentrations between birth and 8 years of age presents a risk of dental fluorosis.[12] Dental fluorosis (discoloration of teeth) is a cosmetic condition that is not painful and usually does not affect the health or function of teeth.[13] Most cases of dental fluorosis in the United States are very mild or mild.[14] The prevalence of severe enamel fluorosis is near zero at fluoride concentrations of less than 2 mg/L.[15] Dental fluorosis can be corrected with cosmetic treatment.

Health Disparities

Removing drinking water fluoridation risks diminishing oral health overall and exacerbating existing oral health disparities. Children from low-income households are much more likely to have untreated cavities than children from higher income households. Per the CDC, children of low income aged 2 to 5 years suffer from untreated dental caries nearly three times as often as their counterparts in higher income households (18 vs. 7 percent).[16] There are also oral health disparities by race/ethnicity; for example, 70 percent of Mexican American children aged 6 to 9 years have had cavities compared with 43 percent of non-Hispanic White children.

Nearly 25 million Americans live in “dental deserts,” which are areas that have less than 1 dentist per 5,000 population.[17] Rural populations and populations with higher levels of Black and Hispanic segregation from the White population are more likely to experience dental care shortages. Further, rural counties, counties with a high uninsured population, and counties with high levels of socioeconomic disadvantage are more likely to face inequality in access to dental care. Even patients insured by Medicaid face access barriers to dental care, as only one third of dentists treat patients on Medicaid.[18]

Nearly 30 percent of the counties where over half of residents live in a shortage area do not have community water fluoridation.[19] These overlapping issues leave individuals with very limited access to dental care at greater risk of tooth decay.

Despite the recognized health benefits and minimal risk of fluoridation, Robert F. Kennedy, Jr., the recently confirmed Secretary of the Department of Health and Human Services (HHS), has announced that “the Trump White House will advise all U.S. water systems to remove fluoride from public water.”[20]

This Fact Sheet will discuss the federal government’s power to regulate fluoride in drinking water. It will also discuss the role of state and local government in this space.

Federal Government’s Role in Fluoride Regulation

The federal government regulates fluoridation primarily through two administrative bodies: the Environmental Protection Agency (“EPA”) and the United States Public Health Service (“PHS”).

a. Environmental Protection Agency

The Safe Drinking Water Act (SDWA)[21] authorizes the Environmental Protection Agency (EPA) to set **standards for drinking water quality**. The EPA can cede this authority to states that meet the requirements for state primacy.[22] The primary purpose of the SDWA is to protect public health. Under the

SDWA, the EPA issues both primary and secondary drinking water regulations for various inorganic elements, including fluoride, and has done so since 1975.[23] Unlike PHS, which focuses on the optimal level for oral health and the minimization of risk, the EPA focuses exclusively on the level of fluoride that presents a health risk.

i. **National Primary Drinking Water Regulations (NPDWRs) are "legally enforceable standards** that apply to public water systems."[24] On April 2, 1986, the EPA set the maximum goal for contamination levels ("MGCL") of fluoride in drinking water at **4.0 mg/L**.[25] Public drinking water that exceeds this standard is considered unsafe for consumption and the EPA may take action to mandate a reduction in fluoride to below 4.0 mg/L. Our research identified zero enforcement actions from the EPA for public water systems providing drinking water. This is highly indicative that we are simply not seeing water at or above 4.0 mg/L, the level at which we are concerned about human health.

ii. **National Secondary Drinking Water Regulations (NSDWRs) are not federally enforceable**. NSDWRs apply to "any contaminant in drinking water which may adversely affect (1) the odor or appearance of such water," causing "a substantial number" of people served by the public water system to not use it, or (2) the public welfare. Per the EPA, "NSDWRs (or secondary standards) regulate contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water."[26]

On April 2, 1986, the EPA set the secondary standard for fluoride at **2.0 mg/L.** Though this standard is not legally enforceable, when fluoride levels exceed 2.0 mg/L, community water systems must provide (1) special notice to the EPA and (2) public notice within one year of its knowledge of excessive fluoride levels.[27]

Again, we are not seeing enforcement for secondary standard violations with fluoride. There is no public water system that wants to **overfluoridate** because it costs money to fluoridate. The EPA's standards are set at a much higher level than the optimal level of 0.7 mg/L, set by the U.S. Public Health Service.

Through the SDWA, Congress requires the EPA to review national primary drinking water regulations every six years and revise the regulations as appropriate.[28] The SDWA does not define when revisions are appropriate, though the EPA, as of May 2024, considers a revision appropriate where "at minimum, it presents a meaningful opportunity to: improve the level of public health protection, or achieve cost savings while maintaining or improving the level of public health protection."[29] **In July 2024,** the EPA announced the results of its most recent Six-Year Review of existing NPDWRs and "determined that there are no additional candidates identified for regulatory revision."[30] Fluoride regulations have since remained unchanged, though the EPA has recently announced plans to review the standards.[31]

a. United States Public Health Service (PHS)

PHS, a component of HHS, is comprised of eight divisions, including the CDC, FDA, and the Agency for Toxic Substances and Disease Registry.[32] PHS focuses on providing and supporting essential public health services. There are legal limits on the federal government's power to require local water fluoridation. PHS does not have the same public health authority as state or local governments to regulate water

fluoridation. Therefore, PHS only issues **guidance**. This guidance is **not a regulation** and is **not legally binding**.

PHS issued initial fluoride guidance in 1945 and updated the guidance in 1962, recommending maximum levels of fluoride in drinking water.[33] Most recently, in 2015, PHS issued a **final recommendation** for optimal fluoride concentration in drinking water of **0.7 milligrams/liter (mg/L)**.[34] This recommendation was made after a years-long, transparent process through interagency collaboration and considering public comment. PHS weighed the public health benefits and risks of water fluoridation in making its recommendation. Ultimately, PHS's recommendation reflects a measured approach for: (1) maintaining caries (cavity) prevention benefits and (2) reducing the risk of dental fluorosis (visually detectable changes in tooth enamel).

In making its final 2015 recommendation, PHS considered the following factors:

- increased availability and use of fluoridated toothpaste;
- prevalence and severity of caries in the population;
- prevalence of dental fluorosis;
- impact of outdoor air temperature on water consumption; and
- cost-effectiveness.

PHS also considered oppositional feedback regarding severe dental fluorosis, bone fractures, skeletal fluorosis, carcinogenicity, lowered IQ and other neurological effects, and endocrine disruption. In response, PHS completed a new review of the scientific literature and, after a careful consideration of the literature and thorough review of the oppositional comments, "the panel did not identify compelling new information to alter its assessment that the recommended fluoride concentration (0.7 mg/L) provides the best balance of benefit to potential harm."[35]

PHS guidance on water fluoridation focuses on optimal levels for dental health whereas the EPA regulates maximum level of fluoride for public safety and aesthetic considerations of public water.

The federal government has no legal authority to require state and local communities to fluoridate drinking water, nor to require the cessation of fluoridation so long as fluoride levels do not exceed the EPA's primary regulation at 4.0 mg/L. As a result, state and local governments retain significant control over public water fluoridation and have exercised that authority since 1945, when Grand Rapids, Michigan became the first city in the world to fluoridate drinking water.[36]

State and Local Government's Role in Water Fluoridation

State and local governments retain authority over the decision to fluoridate water systems for public health. States may also set their own maximum fluoride levels for public safety, which must be at least as stringent as federal standards set by the EPA.[37] For example, Minnesota limits the maximum contaminant level of fluoride to 1.5 mg/L, lower than the EPA's primary and secondary levels.[38]

Fourteen states (Arkansas, California, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Minnesota, Mississippi, Nebraska, Nevada, Ohio, and South Dakota) require water systems of a certain size to provide fluoridated water, whereas other states leave this decision to local actors, such as city or county officials. States may also leave this decision to voters "who decide via local referendums."[39]

State	State Statute/Administrative Code	Water Fluoridation Requirement	Optimum Fluoride Concentration Range (mg/L)
Arkansas	A.C.A. § 20-7-136	A water system that holds, treats, or supplies water to at least 5,000 people	0.7-1.2[40]
California	Cal. Code Regs. tit. 22, § 64433 Cal. Code Regs. tit. 22, § 64433.2	Any public water system with at least 10,000 service connections	0.7-1.2
Connecticut	Conn. Gen. Stat. Ann. § 19a-38	Any public water system that serves at least 20,000 people	0.55-0.85[41] "an average monthly fluoride content that is not more or less than 0.15 of a milligram per liter different than the United States Department of Health and Human Services' most recent recommendation for optimal fluoride levels in drinking water to prevent tooth decay."
Delaware	Del. Code Ann. tit. 16 § 124 16 Del. Admin. Code pt. 4462 § 9.1.14.1	All municipal water supplies	0.6-1.0
Georgia	Ga. Code Ann. § 12-5-175(a) Ga. Comp. R. & Regs. 511-5-2-.01	All incorporated communities	0.7-1.0
Illinois	415 Ill. Comp. Stat. 40/7a 35 Ill. Admin. Code tit. 35, § 611.125	All public water supplies	0.7
Kentucky	902 Ky. Admin. Regs. 115:010	A water system serving at least 3,000 people	0.6-1.2

		A water system serving between 1,500 and 3,000 people only if adequate fluoride feed equipment is available from the cabinet, Department of Public Health	
Louisiana	La. Stat. Ann. § 40:5.11 La. Admin Code tit. 48, § V-1305 La. Admin. Code tit. 48, § V-1101	All public water systems with at least 5,000 service connections and natural levels of fluoride that are outside the optimal range	0.7-1.2
Minnesota	Minn. Stat. Ann. § 144.145 Minn. R. 4720.0030	All municipal water supplies	0.5-0.9
Mississippi	15 Miss. Code Pt. 20, Subpt. 72, R. 3.1	Community water systems serving at least 2,000 people	0.6-1.2
Nebraska	Neb. Rev. Stat. Ann. § 71-3305 179 Neb. Admin. Code, ch. 1, § 003	Any city or village having a population of at least 1,000 people	0.5-0.9
Nevada	Nev. Rev. Stat. Ann. § 445A.055 Nev. Admin. Code § 445A.6682	All water delivered for human consumption in counties with populations of 400,000 or more	0.7-1.2
Ohio	Ohio Rev. Code Ann. § 6109.20	All public water systems with natural fluoride content of less than 0.8 mg/L	0.8-1.3
South Dakota	S.D. Codified Laws § 34-24A-3 S.D. Admin. R. 74:04:01:03	All municipal water supplies serving at least 500 people	0.5-0.9

Some states and municipalities expressly refer to the PHS Guidance or EPA standards for drinking water quality when setting forth the legal requirements for fluoride concentration. For example, Louisiana explicitly defines “Optimal Fluoride Level Range” as “that level of fluoride which has been deemed to be most beneficial to health as set forth by the Centers for Disease Control and Prevention (CDC) for community water supplies.”[42] Similarly, Illinois gives the PHS guidance legally binding effect, stating “public water supplies shall

be in compliance with the recommendations on optimal fluoridation for community water levels as proposed and adopted by the U.S. Department of Health and Human Services and the Centers for Disease Control and Prevention."[43]

In the 2025 legislative session, some states are considering legislation to remove statewide mandates, ban water fluoridation, or both. So far, one state has passed such legislation.

a. On March 27, 2025, **Utah** became the first state to ban water fluoridation.[44] This law prohibits fluoridation of public water systems and prohibits political subdivisions from enacting or enforcing ordinances requiring or permitting community water fluoridation. This law will take effect on May 7, 2025.

b. **Arkansas** ranks worst in the nation for dental health across all states and Washington, D.C.).[45] A failed 2025 proposed bill would have repealed a state law mandating the fluoridation of drinking water.[46]

c. Despite **Kentucky** ranking 44th in the nation for dental health, a bill that would let local water systems' governing bodies decide whether to add fluoride to public water systems recently passed the Kentucky House (68 to 29).[47] This bill would repeal Kentucky's current law, which currently requires water utilities servicing more than 3,000 customers to add low levels of fluoride. If passed, this bill would make water fluoridation programs optional.[48]

d. Though **Texas** ranks 48th in the nation for dental health, a proposed bill would prohibit community water fluoridation at any concentration and impose a penalty of a first-time fine of $500 and $1000 fine for subsequent violations.[49]

e. Despite **Louisiana** ranking 47th in the nation for dental health, a proposed Louisiana bill would repeal the state water fluoridation program and prohibit the fluoridation of local public water systems.[50]

f. A proposed **Massachusetts** bill would permit any town, city, or district with community water fluoridation programs to choose instead to ban water fluoridation via local ordinance.[51] This bill would also permit water superintendents or water commissioners to unilaterally suspend fluoridation programs "at will" if "in their opinion, the water fluoridation program is posing a risk to consumers, workers, infrastructure or environment."

g. A failed 2025 **New Hampshire** bill would have prohibited community water fluoridation.[52]

h. A failed 2024 **Georgia** bill would have repealed a state law mandating water fluoridation.[53]

These legislative challenges to community water fluoridation are commonly in states with the worst-ranking dental health; however, they are becoming more numerous.

Though some states require water systems of a certain size to fluoridate water, the majority of states leave the decision to fluoridate up to local ordinance, regulation, or other policy. Most states which do not have state

mandates for community water fluoridation still have a majority of counties with at least one fluoridated water system.

State	# of Counties/Localities with Fluoridated Community Water Systems	Total # of Localities Surveyed	Estimated Percent of Localities with Fluoridated Community Water Systems (to nearest tenth)
Alabama	64	70	91.4
Alaska	12	27	44.4
Arkansas	67	75	89.3
Colorado	52	71	73.2
Florida	43	66	65.2
Idaho	28	44	63.6
Indiana	89	92	96.7
Iowa	96	98	98.0
Kansas	80	105	76.2
Maine	15	16	93.8
Massachusetts	11	14	78.6
Michigan	69	83	83.1
Missouri	78	116	67.2
New Hampshire	10	10	100
North Carolina	82	100	82.0
North Dakota	53	54	98.1
Oklahoma	53	77	68.8
Rhode Island	5	5	100
South Carolina	40	46	87.0
Tennessee	85	95	89.5
Texas	227	254	89.4
Vermont	13	14	92.9
Virginia	120	130	92.3
West Virginia	53	55	96.4

This table's county fluoridation data is based on CDC data as of December 1, 2024.[54]

Recent Federal Court Decision Related to Fluoride

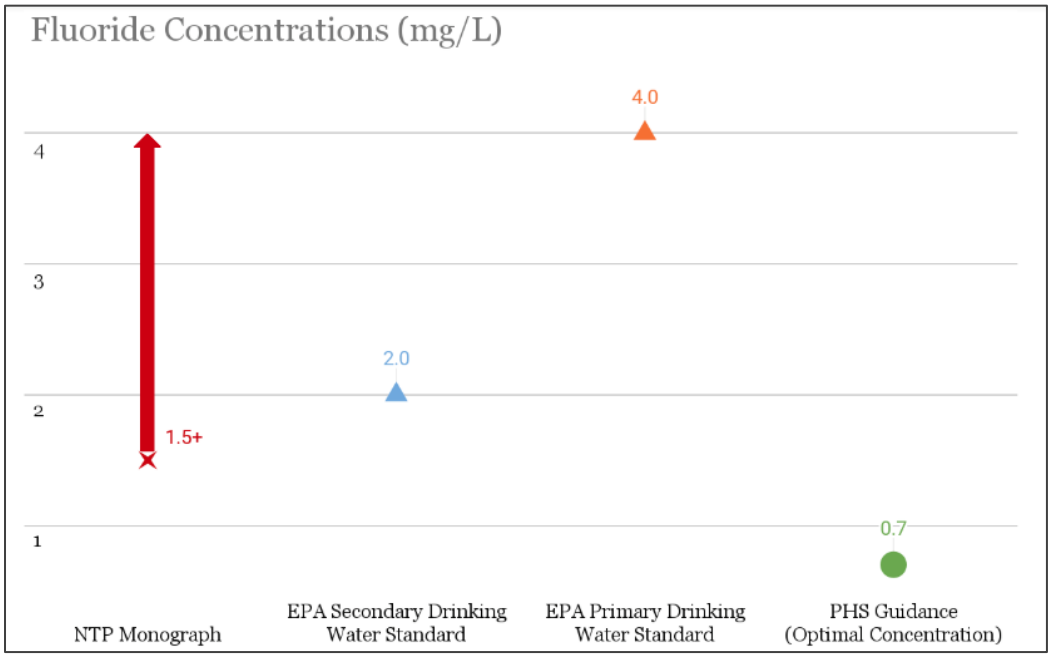
Advocates who oppose water fluoridation filed litigation challenging the EPA's primary standard of 4.0 mg/L:

Food & Water Watch, Inc. v. United States Environmental Protection Agency: Misplaced Reliance on the NTP Monograph for Conclusions about Community Water Fluoridation at Optimal Levels

Plaintiffs in this case consist of a group of advocacy organizations and individuals opposed to fluoridation. In April 2017, Plaintiffs sued the EPA and Scott Pruitt, in his official capacity as EPA Administrator, "to prohibit the addition of fluoridation chemicals to drinking water supplies."[55]

In **September 2024**, the U.S. District Court for the Northern District of California found that "there is substantial and scientifically credible evidence establishing that fluoride poses a risk to human health; it is associated with a reduction in the IQ of children and is hazardous at dosages that are far too close to fluoride levels in the drinking water of the United States. And this risk is unreasonable under Amended [Toxic Substances Control Act]."[56]

In making this determination, the court heavily relied on the National Toxicology Program's (NTP) draft monograph *Systemic Review of Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects*.[57] This monograph included scientific studies finding a correlation between lower IQ scores and fluoride concentration of greater than 1.5 mg/L.[58] This concentration is more than double the PHS guidance for optimal level of community water fluoridation (0.7 mg/L). These studies took place in China, Mexico, Canada, India, and Iran — notably, none took place in the United States. The NTP has explicitly stated, "***It is important to note that there were insufficient data to determine if the low fluoride level of 0.7 mg/L currently recommended for U.S. community water supplies has a negative effect on children's IQ.*** The NTP found no evidence that fluoride exposure had adverse effects on adult cognition."[59]



- The referenced NTP monograph is scientifically deficient, at best. Given the monograph's controversial nature, the NTP requested review by the National Academies of Sciences, Engineering, and Medicine (National Academies). The National Academies "identified deficiencies in the analysis of various aspects of some of the studies and in the analysis, summary, and presentation of the data in the draft monograph" and "concluded that NTP had not adequately supported its conclusions."[60] After this robust criticism of the draft monograph, the NTP issued a revised final monograph and addendum. The NTP authors once again affirmed that the NTP monograph does not apply to community water fluoridation at optimal levels in the United States. The authors explicitly stated under a section entitled "*What this Monograph Does Not Do*," that "[t]his Monograph and Addendum do not address whether the sole exposure to fluoride added to drinking water in some countries (i.e., fluoridation, at 0.7 mg/L in the

United States and Canada) is associated with a measurable effect on IQ."[61]

- Even accepting the NTP monograph at face value as acceptable science and the premise that fluoridation at 1.5 mg/L or above is harmful to health, its findings still would not give cause to change the PHS guidance. And now, the monograph has been cited as a valuable piece of evidence for conclusions it does not reach.

In response to the district court ruling, the American Dental Association (ADA) reiterated its steadfast support for community water fluoridation.[62] The ADA criticized the district court's ruling, specifically its lack of scientific basis and reliance on "pseudo-scientific information." A coalition consisting of the ADA and twelve other groups wrote in a January 10 letter that the ruling "reflects a fundamental misunderstanding and misapplication of the prevailing scientific literature on the safety of fluoride and community water fluoridation."[63]

On **January 17, 2025**, the Biden EPA filed a notice of appeal, and the case is proceeding before the U.S. Court of Appeals for the Ninth Circuit.[64] However, it appears that the EPA is complying with the district court's order in advance of the Ninth Circuit appeal. On April 7, 2025, EPA Administrator Lee Zeldin, appointed by President Trump, announced that the EPA will "expeditiously review new scientific information on potential health risks of fluoride in drinking water."[65] In its announcement, the EPA referenced the NTP monograph's conclusion "that fluoride exposure above 1.5 milligrams per liter is associated with lower IQ in children." [66] The EPA press release indicated that the EPA will provide an updated health effects assessment for fluoride "that will inform any potential revisions to EPA's fluoride drinking water standard."

Potential Federal Action and Opportunities for States to Respond

EPA Prohibition of Water Fluoridation Would Likely Be Stricken Down in Court

The EPA could theoretically amend the NPDWRs, lowering the permissible level of fluoride in drinking water from 4.0 mg/L to 0 mg/L or some miniscule level of fluoride. Such a change would likely be incredibly difficult for the EPA to achieve, as such an amendment would be subject to another rulemaking process, including a notice-and-comment period and development of a full administrative record.[67] Administrative agencies are required to provide a reasoned showing for taking agency action and be responsive through a public notice and comment period.

The Administrative Procedure Act (APA) establishes procedures for agency rulemaking and adjudication and codifies bases by which federal courts may set aside an agency's action or determinations.[68] The APA requires courts to defer to agencies except where agency action is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law."[69] Reviewing courts may strike down agency action in a formal rulemaking when it is "unsupported by substantial evidence."[70] Agencies reserve the right to change their minds, but they cannot complete an absolute reversal in rulemaking without a reasoned analysis.[71]

Any potential change to NPDWRs could be challenged in court and struck down as "arbitrary and capricious." Courts consider the following factors when determining whether an agency's rulemaking was arbitrary and capricious:

(1) agency relied on factors Congress did not intend for it to consider;

(2) agency "entirely failed" to consider part of the problem;

(3) agency offered an explanation that runs counter to evidence; or

(4) agency decision is so implausible that it could not be ascribed to agency expertise.[72]

The arbitrary and capricious standard is generally considered a low bar for agencies to meet. However, given the overwhelming amount of scientific evidence in support of community water fluoridation, it is highly likely that reduction of the NPDWR to 0 mg/L or some negligible amount would be found to be an arbitrary and capricious rulemaking.

Agency action is arbitrary and capricious when the agency misinterprets the rulemaking record, such as "cherry picking" information, omitting information, or overemphasizing information.[73] Agencies may not complete rulemaking that runs so counter to available evidence that the decision cannot be ascribed to agency expertise. Agencies must demonstrate findings and analysis to justify choices made and an indication of the basis on which it exercised **expert** discretion.[74] The APA notice and comment requirements would force the EPA to "reveal[] for public evaluation . . . the 'technical studies and data' upon which the agency relie[d] . . .' in rulemaking."[75] As established above, the NTP monograph (1) lacks scientific credibility and (2) does not apply to community water fluoridation at optimal levels in the United States. The NTP monograph's deficiencies, taken together with the plethora of evidence demonstrating the well-established benefit of water fluoridation, would make it more likely that agency action to outright prohibit water fluoridation runs so counter to the scientific literature that it cannot be ascribed to agency expertise and is therefore arbitrary and capricious.

To alter the primary fluoride standard, the EPA would be required to address the contrary studies demonstrating the efficacy and importance of community water fluoridation.[76] An agency must provide a reasoned analysis for its rulemaking decisions, and if that reasoning is insufficient, a court will not supply reasons or accept post-hoc rationales.[77] Given the present lack of sound scientific evidence that would support elimination or near elimination of fluoride in drinking water, the EPA would likely struggle to provide adequate rationale for such a decision. The Trump Administration could only rely on the present scientific literature – which overwhelmingly supports community water fluoridation at optimal levels.

An EPA prohibition on water fluoridation could also be found arbitrary and capricious as failure to consider an important aspect of the problem, such as alternatives or policy implications, since it does not consider that water fluoridation at optimum levels provides a safety net for all Americans' oral health.[78] An EPA decision to prohibit water fluoridation at optimal levels based on studies finding health risks at concentrations at double the current optimal level could be considered a failure to consider "alternatives."[79]

Under Secretary Kennedy, HHS Could Issue New PHS Fluoride Guidance Without Notice and Comment

On April 7, 2025, Secretary Kennedy publicly announced plans to tell the CDC to stop recommending community water fluoridation.[80]

This action could be taken with little transparency or opportunity for the public health community to advocate against it because on March 3, 2025, Secretary Kennedy rescinded HHS' Policy on Public Participation in Rule Making ("the Richardson Waiver").[81] Secretary Kennedy's rescission of the Richardson Waiver could foreshadow HHS's move toward less transparency in issuing PHS's fluoridation guidance. The rescission of the Richardson Waiver is unlikely to directly impact PHS guidance on fluoridation, as this regulatory action typically does not fall under "agency management, public property, loans, grants, benefits, or contracts."[82] However, in accordance with the Richardson Waiver, the "rule of thumb" for "good guidance practice" is to forgo the APA's exemption of notice-and-comment rulemaking for guidance.[83] Nonetheless, Secretary Kennedy has announced that notice-and-comment rulemaking is discretionary "except as otherwise required by law."[84]

Therefore, PHS could withdraw the current guidance or issue new guidance recommending a reduced optimal fluoride concentration to 0 mg/L without any input from the external scientific community, medical professionals, or the public. Such an outcome would starkly contrast with PHS's 2015 guidance, which was issued only after thorough, analytical consideration of public comment.

- If PHS guidance were reissued to a lower level than 0.7 mg/L, it would be subject to challenge. When agency guidance gets reviewed, we look to a case called ***Skidmore v. Swift & Co.***[85] Courts will specifically evaluate an agency's Guidance based upon "the thoroughness evident in its consideration, the validity of its reasoning, its consistency with earlier and later pronouncements, and all those factors which give it power to persuade, if lacking power to control."[86] ***Skidmore*** directs the court's inquiry to whether the agency has done its due diligence and whether it used its expertise when taking action on Guidance.

As explained above, there is no legitimate science-based argument to take the PHS Guidance down to zero. Even the agency's best evidence, the NTP monograph, does not say that community water fluoridation at the optimal level of 0.7 mg/L is unsafe for human consumption. At the same time, it is very difficult to predict the outcome of such litigation in the ever-evolving state of administrative law.[87]

Though this guidance would not be legally binding, some state and local laws explicitly reference the PHS guidance in their water fluoridation statutes. Moreover, with no guidance or guidance to eliminate fluoride in drinking water, anti-fluoridation advocates and state and local policy makers would have a seemingly legitimate basis for ceasing water fluoridation, harming public health.

State and Local Governments' Opportunity to Respond

State and local governments can take preventive action to:

(1) determine whether their statutes/codes explicitly reference PHS's guidance or the EPA's **standards for drinking water quality** and, if yes,

(2) amend these laws/regulations to include the specified optimal concentration of 0.7 mg/L;

(3) create systems for reviewing the standards in collaboration with other states and/or considering standards established in other countries.

These measures would ensure that state and local laws intending to mandate community water fluoridation at an appropriate concentration do not get swallowed up in the Trump Administration's efforts to limit or prohibit water fluoridation.

Conclusion

Ultimately, the scientific literature consistently reinforces community water fluoridation at an optimal level of 0.7 mg/L. Reliance on the NTP monograph for purposes of community water fluoridation is ill-advised and will likely bolster successful legal challenges of agency actions to reduce or prohibit water fluoridation. States and localities maintain final authority regarding the decision to fluoridate water systems and should craft their laws to ensure they are shielded from regulatory changes at the federal level.

This article was written by Lauren Gammer, J.D., student attorney, Public Health Law Clinic, University of Maryland Carey School of Law, and reviewed by Kathi Hoke, J.D., Director, Network for Public Health Law—Eastern Region.

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