



## Prosthodontics Associates, P.A.

P O R T L A N D

April 19, 2025

RE: Written Testimony Regarding LD 1570 An Act to Prohibit Fluoridation of the Public Water Supply

Dear Distinguished members of the Health and Human Services Committee:

I submit this written testimony regarding the LD 1570 policy (An Act to Prohibit Fluoridation of the Public Water Supply). I come before you today not just as a dental specialist, but as someone who has witnessed firsthand the profound difference that preventive dental care makes in people's lives.

I am a practicing dentist with 6 years of clinical experience in private practice in Portland, Maine. I am a specialist in Prosthodontics with a focus on oral rehabilitation to treat and replace missing and/or damaged teeth and related oral structures. For 7 years, I have volunteered with the Cahaba Valley Health Care organization in Alabama as a volunteer oral health educator, radiology technician, dentist, and served as President of the Junior Board. This is an organization dedicated to helping underserved communities with limited access to dental care. I have held the hands of patients in pain, looked into the eyes of parents worried about their children's teeth, and treated preventable conditions that drastically reduced quality of life.

Every day in my practice, I see the consequences when prevention fails. I rebuild smiles damaged by decay and infection. I create prosthetics to replace teeth that could have been saved. And through all this work, one truth has become abundantly clear: fluoridated water makes a remarkable difference, especially for our most vulnerable populations—children, individuals with dry mouth conditions, and cancer patients who've undergone radiation treatments.

Water fluoridation is not a new or experimental concept. For over 75 years, communities across America have benefited from this public health measure, beginning with Grand Rapids, Michigan in 1945. The Centers for Disease Control and Prevention (CDC) has recognized water fluoridation as one of the ten greatest public health achievements of the 20th century (CDC, 2024). Current recommendations maintain that the optimal fluoride concentration in drinking water is 0.7 milligrams per liter (mg/L), a level that provides substantial dental benefits while minimizing any risk of dental fluorosis.

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The evidence supporting water fluoridation's effectiveness in preventing dental caries is substantial:

1. A systematic review published in Community Dental Health (Iheozor-Ejiofor et al., 2024) found that water fluoridation reduces the incidence of tooth decay in children by 25-30% compared to non-fluoridated communities.
2. Research in Israeli Journal of Health Policy Research (Nezihovski et al., 2024) demonstrated that communities that discontinued water fluoridation experienced a 2-fold increase in the number of dental treatments performed in 5 years.
3. A study in the Journal of Dental Research (Griffin, 2007) showed that any fluoride (self- and professionally applied or water fluoridation) prevented caries in approximately 27%. The findings suggested fluoride benefits to prevent dental caries in adults of all ages.
4. A 7-year follow-up of the effect of public water fluoridation cessation in children's dental caries experience in Calgary, Canada revealed significant increase in dental caries compared to Edmonton, Canada which continued its fluoridation. The study published in Community Dental Oral Epidemiology (McLaren et al., 2021) found dental caries prevalence to be 64.8% in Calgary compared to 55.1% in Edmonton.

Water fluoridation represents one of the most cost-effective public health interventions available:

1. An economic analysis published in the American Journal of Preventive Medicine (Ran et al., 2016) found that per capita annual intervention cost ranged from \$0.11 to \$4.89 in 2013. The benefit-cost ratios ranged from 1.12:1 to 135:1 with the ratios positively associated with community population size.
2. The CDC estimated that water fluoridation saves about \$65 billion per year in dental treatment costs and offers an average return on investment of \$20 per every \$1 spent. (CDC, 2024).

Water fluoridation provides significant benefits to vulnerable populations:

1. Research in the Journal of Dentistry (Jones et. al, 2000) highlighted the strong association of dental caries with social deprivation in 12-year-old children. Water fluoridation significantly reduced tooth decay and the socio-economic dental health inequalities.
2. A review in the Journal of Public Health Dentistry (Burt, 2002) argues that the most practical and effective method of reducing socioeconomic status-based disparities in the burden of dental caries is water fluoridation.

Extensive research has consistently affirmed the safety of community water fluoridation:

1. A comprehensive review by the U.S. National Toxicology Program (2025) confirmed that there is insufficient data to determine if the lower fluoride level of 0.7 mg/L currently recommended for U.S. community water supplies has a negative effect on children's IQ.
2. The World Health Organization's comprehensive analysis (WHO, 2006) reaffirmed that water fluoridation at recommended levels poses no significant health risks and continues to recommend it as a public health measure.
3. A meta-analysis evaluating low fluoride exposure and children's intelligence (Kumar et al, 2023) found fluoride exposure due to community water fluoridation was not associated with lower IQ scores in children.

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Based on the robust scientific evidence, I strongly recommend:

1. Maintaining current community water fluoridation programs at the optimal level of 0.7 mg/L as recommended by the U.S. Public Health Service.
2. Expanding fluoridation infrastructure to reach the Americans who still lack fluoridated water
3. Increasing public education efforts to counter misinformation about fluoridation with evidence-based information about its safety and benefits.
4. Continuing regular monitoring of fluoride levels and health outcomes to ensure ongoing safety and effectiveness.
5. Allocating sufficient funding to support aging water infrastructure to maintain precise control of fluoride levels.

In closing, I ask you to consider the faces behind the statistics—the child who won't have to miss school due to tooth pain, the senior who maintains the ability to eat nutritious foods, the family spared the financial burden of extensive dental work. Water fluoridation represents public health at its most effective: prevention that reaches everyone.

Removing this protective measure would disproportionately harm those with the least access to dental care. I respectfully urge this Committee to maintain support for community water fluoridation as an essential component of our public health infrastructure and prevent an easily preventable oral disease.

Thank you for your consideration.

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