

Testimony for LD 1570: An Act to Prohibit Fluoridation of the Public Water Supply

Thank you to Senator Henry Ingwersen, Representative Michele Meyer, and the Health and Human Services Committee for allowing me to share my written testimony. My name is Kelly Gao, MD, and I am a pediatric resident physician who lives in Scarborough, Maine. I am writing on behalf of the Maine Chapter of the American Academy of Pediatrics, and thus, represent a large network of pediatricians across the state of Maine focused on promoting policies that contribute to the health and well-being of Maine's children. We stand in opposition of LD 1570 because we feel passionate that prohibiting fluoridation of the public water supply will lead to poorer health outcomes in children, create larger health disparities, and result in significantly higher healthcare costs.

As pediatricians, we dedicate our lives to supporting and promoting the health and safety of children so that they not only grow, develop, and thrive in present time, but so that they can also go on to reach their full adult potential. Tooth decay is the most common chronic disease in children, as well as the most easily preventable chronic disease. It is about 5 times more common than asthma, and 7 times more common than hayfever.¹ There is a wealth of evidence that shows children with poor dental health and tooth decay have poorer health outcomes, chronic pain, and higher risks for life threatening infections. These in turn lead to social isolation, poorer performance in school, difficulty with nutrition and sleep, and many other detrimental effects. It's clear that prohibiting fluoridation of public water supply would have an unspeakable effect on public health, which also leads to a significant increase in healthcare cost utilization.

I work in an outpatient pediatrics clinic and see families from all walks of life – and I commonly see dental caries, particularly in lower socioeconomic families. I've seen children who are in excruciating pain with multiple cavities scattered through their mouth, who haven't been able to eat normally in months as a result. I see more children than not who do not have access to a dentist and must be added to a waitlist that grows larger each day. Some don't even own toothbrushes or toothpaste. Our clinic even recently started an SDF (silver diamine fluoride) clinic out of necessity, which is a substance that arrests active cavity progression when applied, because the rates of tooth decay and risk of serious implications are simply that high. There are many factors contributing to poor dental health that are difficult to control and differ widely between families' unique circumstances, but all families, regardless of where they come from, use the same public water supply. This is why it is so crucial to maintain fluoridation of the public water supply; there is an incredible amount of evidence that clearly demonstrates its protective effect on dental health and subsequent health effects, and it is the one thing that reaches everybody regardless of their status or life circumstances.

A 2018 study of over 13,000 U.S. children showed that for every 100 children with access to fluoridated water, there were 130 fewer decayed surfaces of primary teeth, and 30 fewer decayed surfaces of permanent teeth.² Another study found that preschool-age children who didn't have fluoridated water had an 86% higher rate of potentially preventable hospitalizations for serious dental conditions.³ It is clear that fluoridation of public water supplies lead to statistically

significant differences in dental health. Moreover, it also leads to fewer hospital admissions, and therefore lower healthcare costs. A U.S. study found that each person in a fluoridated community saves an average of \$32.19 a year in dental care that would otherwise be needed to treat decay. If non-fluoridated water systems were to fluoridate, the authors estimated that as much as \$2.5 billion might be saved every year.⁴ With these savings, this would open countless doors for patients to engage in their community, and for hospitals and healthcare systems to be able to more effectively use savings to improve other health outcomes.

There is also a growing concern regarding the safety of fluoridation in the public water supply. Fluoride itself is a naturally occurring mineral found in all water supplies to begin with; it is not a chemical that is artificially added. Its levels are simply adjusted to the correct amount to best prevent tooth decay. Additionally, there have been no studies that have found an association between fluoride and cancer. For example, a study reviewed by the Public Health Service evaluated the relationships between water fluoridation and both the number of cancer deaths in the United States during a 36-year period and the number of new cancer cases during a 15-year period. After examining more than 2.2 million cancer death records and 125,000 cancer case records in counties using fluoridated water, the researchers found no indication of increased cancer risk in people who consumed fluoridated drinking water.⁵ There are many other high quality, comprehensive reviews and studies that demonstrate the same result.

LD 1570 is an important piece of legislation to oppose for Maine's children in order to safely achieve better health outcomes and effectively cut healthcare costs in the process. The research has already shown ample evidence on effectiveness of water supply fluoridation on preventing tooth decay, the reasons why dental health is so important, its effect on healthcare costs, and its safety profile. The stories from my own personal medical practice are even more convincing for the necessity of supporting dental health, and its important role in a family's and child's life. Please join Maine's pediatricians in supporting this bill. We owe it to supporting Maine's children, who are our future.

References

1. Benjamin RM. Oral health: the silent epidemic. *Public Health Rep.* 2010;125(2):158-159. doi:10.1177/003335491012500202
2. Slade GD, Grider WB, Maas WR, Sanders AE. Water Fluoridation and Dental Caries in U.S. Children and Adolescents. *J Dent Res.* 2018;97(10):1122-1128. doi:10.1177/0022034518774331
3. Rogers JG, Adams GG, Wright FAC, Roberts-Thomson K, Morgan MV. Reducing Potentially Preventable Dental Hospitalizations of Young Children: A Community-Level Analysis. *JDR Clin Trans Res.* 2018;3(3):272-278. doi:10.1177/2380084418764312
4. O'Connell J, Rockell J, Ouellet J, Tomar SL, Maas W. Costs and savings associated with community water fluoridation in the United States. *Health Affairs.* 2016;35(12):2224-2232. doi:10.1377/hlthaff.2016.0881
5. Committee to Coordinate Environmental Health and Related Programs, Ad Hoc Subcommittee on Fluoride (February 1991). *Review of Fluoride: Benefits and Risks* Exit Disclaimer. Public Health Service, Department of Health and Human Services.