

Public Water Supply Fluoridation Study Report
Session Law 2024-1, Section 2.10



Report to the
Joint Legislative Oversight Committee on
Health and Human Services

By

NC Department of Health and Human Services
on behalf of
The Secretaries' Science Advisory Board

December 19, 2024

Background

Session Law 2023-134, Section 8.16.(d,e), as amended by Session Law 2024-1, Section 2.10, directs the Secretaries' Science Advisory Board to review the National Toxicity Program's ("NTP") September 2022 draft report titled "Monograph on the State of the Science Concerning Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects: A Systematic Review" ("2022 Draft NTP Report")¹ and other studies relevant to an assessment of the association between fluoride exposure and IQ in children, to determine whether sufficient evidence exists for a link between fluoride in the public water supply and cognitive decline or any other neurological detriment to children, and to provide a report of its findings and recommendations to the General Assembly on or before December 1, 2024. The legislation requires that this report shall include a recommendation on whether the current level recommended by the US Public Health Service (i) is protective of public health and (ii) should be lowered.

The 2022 Draft NTP Report conducted a review of scientific research on fluoride exposure and health effects in humans. This draft received feedback from the National Academies of Science, Engineering, and Medicine and the NTP Board of Scientific Counselors. The NTP report was effectively split into two documents – The State of the Science Monograph and a corresponding meta-analysis of research articles relevant to this topic. In August 2024, the NTP published the finalized document titled "Monograph on the State of the Science Concerning Fluoride Exposure and Neurodevelopment and Cognition: A Systematic Review".² The corresponding systematic review and meta-analysis of studies assessing potential correlations between fluoride and children's intelligence has been accepted by a scientific journal for publication but is not yet available as of December 4, 2024.³

After consultation with the Secretaries' Science Advisory Board, it has been determined that the meta-analysis is relevant to the requested assessment and resulting recommendation. As this meta-analysis is not yet available, finalization of this report within the requested timeframe would be premature.

This report is submitted by the Department of Health and Human Services (DHHS) Division of Public Health in consultation with and with approval by the Secretaries' Science Advisory Board.

1 National Toxicology Program (NTP). 2022. Fluoride: Assessment for Developmental Neurotoxicity, U.S. Department of Health and Human Services, National Toxicology Program. Available at <https://ntp.niehs.nih.gov/whatwestudy/assessments/noncancer/ongoing/fluoride#:~:text=The%20report%20underwent%20two%20peer,cognitive%20neurodevelopmental%20hazard%20for%20humans> (accessed January 25, 2024).

2 National Toxicology Program (NTP). 2024. NTP monograph on the state of the science concerning fluoride exposure and neurodevelopment and cognition: a systematic review. Research Triangle Park, NC: National Toxicology Program. NTP Monograph 08. Available at https://ntp.niehs.nih.gov/sites/default/files/2024-08/fluoride_final_508.pdf (accessed October 29, 2024).

3 DTT Meta-analysis, Taylor KW, Eftim SE, Sibrizzi CA, Blain RB, Magnuson K, Hartman PA, Rooney AA, Bucher JR. 2024. Fluoride exposure and children's intelligence: A systematic review and meta-analysis. In Press.