

**STATEMENT OF THE**

**AMERICAN DENTAL ASSOCIATION**

**TO THE**

**NATIONAL TOXICOLOGY PROGRAM  
BOARD OF SCIENTIFIC COUNSELORS**

**ON THE**

**NTP MONOGRAPH ON THE STATE OF THE SCIENCE CONCERNING  
FLUORIDE EXPOSURE AND NEURODEVELOPMENTAL AND  
COGNITIVE HEALTH EFFECTS: A SYSTEMATIC REVIEW**

**SUBMITTED BY**

**HOWARD POLLICK**

**PROFESSOR, DEPARTMENT OF PREVENTIVE AND  
RESTORATIVE DENTAL SCIENCES**

**SCHOOL OF DENTISTRY  
UNIVERSITY OF CALIFORNIA SAN FRANCISCO**

**May 4, 2023**

Good afternoon, Dr. Gray and members of the Board. I am Howard Pollick, Clinical Professor in the Department of Preventive and Restorative Dental Sciences at the School of Dentistry, University of California San Francisco. I am a dentist, board certified in Dental Public Health, and an advisor to the California Department of Public Health. Today, I'm speaking on behalf of the American Dental Association.

Community water fluoridation is the controlled adjustment of the natural fluoride content in water to levels recommended by the U.S. Public Health Service to help prevent tooth decay. For more than 75 years, it has been a safe and inexpensive way to reduce tooth decay in children and adults by at least 25 percent.<sup>1</sup> The CDC hailed it as one of ten great public health achievements of the 20th century.<sup>2,3</sup>

The ADA was initially pleased that NTP was examining the literature, as were others, to determine whether there was an association between fluoride exposure and IQ. Unfortunately, we're now in the position of having to ask if you really want to stake NTP's reputation on a report whose research methods, conclusions, clarity, and transparency have been so unorthodox.

First, the public deserves to know that its research agencies are not arbitrarily changing peer reviewers when the results are not to their liking. NTP started by asking the National Academies of Sciences, Engineering and Medicine to serve as the report's peer reviewer. NASEM is the acknowledged gold standard for reviewing complex scientific issues.

After the NASEM committee reported the first two drafts would not survive scientific scrutiny without major revision, NTP abandoned that course of peer review and, instead, hand-picked its own panel to review the draft before you. That is not consistent with the spirit of a truly independent peer review.

NTP also has not resolved what NASEM identified as “worrisome inconsistencies”<sup>4</sup> in its risk-of-bias determinations. NASEM questioned several instances where NTP appeared to favor studies supporting its hypothesis and dismiss others refuting it. In response, NTP removed its meta-analysis from the current draft. Meta-analysis findings are used to reveal the biases, strengths, and weaknesses of existing studies.<sup>5</sup>

Both of these actions are red flags for transparency and scientific integrity.

Second, we question why NTP has been so averse to adding a disclaimer, as NASEM recommended, clarifying that its literature review did not validate the hypothesis that consistent exposure to low levels of fluoride impact IQ. The lay reader would have difficulty ascertaining that the report’s findings are limited to fluoride exposures that are more than double what the USPHS recommends for community water fluoridation. A disclaimer would help prevent the findings from being mischaracterized in debates about fluoridating local water systems.<sup>6</sup>

Finally, even if NTP published its report today, it would already be out of date.

NTP’s finding is based on 19 studies, and at least nine more have been published since the study period ended in 2020, including two meta-analyses. One found, “[T]he limitations of most studies...raise uncertainties about both the causal nature of such

relation and the exact thresholds of exposure involved. Such key issues can only be confirmed by additional, high-quality longitudinal studies.”<sup>7</sup> Another, published last week, found, “Uncritical acceptance of fluoride-IQ studies...has hindered methodological progress.”<sup>8</sup>

In other words, the current state of the science does not validate the hypothesis that fluoride exposure is consistently associated with lower IQ in children. We therefore generally support the BSC Working Group’s recommendations regarding NTP’s meta-analysis manuscript.<sup>9</sup>

At a time when the public’s trust in federal research is declining,<sup>10</sup> we urge you to consider whether this report is consistent with the White House Task Force on Scientific Integrity’s recommendations for federal agencies to improve their research processes and adopt better methods of communicating scientific findings to lay audiences.<sup>11,12,13</sup>

Since there is no compelling *scientific* or *public health* reason for rushing this report to publication, we urge NTP not to publish this report until our concerns—identified both here and in our written comments—are resolved.

Thank you for giving us the opportunity to testify. I am happy to answer any questions.

- 
- <sup>1</sup> American Dental Association, *Fluoridation Facts*, 2018. Available at <https://www.ada.org/resources/community-initiatives/fluoride-in-water/fluoridation-facts> (accessed April 28, 2023)
- <sup>2</sup> Centers for Disease Control and Prevention. Ten Great Public Health Achievements – United States, 1900-1999. *MMWR* 1999; 48 (12): 241-243. Available at: <https://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm> (accessed April 28, 2023)
- <sup>3</sup> Murthy VH, Surgeon General's Perspectives: Community Water Fluoridation—One of CDC's 10 Great Public Health Achievements of the 20th Century, *Public Health Rep* 2015; 130(4): 296-298. doi:10.1177/003335491513000402
- <sup>4</sup> National Academies of Sciences, Engineering, and Medicine. 2021. *Review of the Revised NTP Monograph on the Systematic Review of Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects: A Letter Report*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/26030>.
- <sup>5</sup> Russo MW. How to Review a Meta-analysis. *Gastroenterol Hepatol* (N Y). 2007 Aug;3(8):637-42. PMID: 21960873; PMCID: PMC3099299.
- <sup>6</sup> Fluoride Action Network. Suppressed Government Report Finding Fluoride Can Reduce Children's IQ Made Public Under EPS Lawsuit. Press Release, March 15, 2023. Available at: <https://fluoridealert.org/articles/suppressed-government-report-finding-fluoride-can-reduce-childrens-iq-made-public-under-epa-lawsuit> (accessed April 28, 2023)
- <sup>7</sup> Veneri F, Vinceti M, Generali L, et al. Fluoride exposure and cognitive neurodevelopment: Systematic review and dose-response meta-analysis. *Environmental Res*. 2023 Mar 15;221:115239. doi: 10.1016/j.envres.2023.115239. Epub 2023 Jan 10.
- <sup>8</sup> Kumar JV, Moss ME, Liu H, Fisher-Owens S. Association between low fluoride exposure and children's intelligence: a meta-analysis relevant to community water fluoridation. *Public Health*. 2023;219: 73-84. doi.org/10.1016/j.puhe.2023.03.011 Available at: [www.sciencedirect.com/science/article/pii/S0033350623000938](http://www.sciencedirect.com/science/article/pii/S0033350623000938) (accessed April 28, 2023)
- <sup>9</sup> National Toxicology Program. April 2023. *NTP Board of Scientific Counselors Working Group Report on the Draft State of the Science Monograph and the Draft Meta-Analysis Manuscript on Fluoride*. Office of Health Assessment and Translation, National Institute of Environmental Health Sciences, National Institutes of Health, U.S. Department of Health and Human Services. Available at: [https://ntp.niehs.nih.gov/ntp/about\\_ntp/bsc/2023/may/wgrptbsc20230400.pdf](https://ntp.niehs.nih.gov/ntp/about_ntp/bsc/2023/may/wgrptbsc20230400.pdf) (accessed April 28, 2023)
- <sup>10</sup> Pew Research Center, Americans' Trust in Scientists, Other Groups Declines. Report, February 2022. Available at: <https://www.pewresearch.org/science/2022/02/15/americans-trust-in-scientists-other-groups-declines> (accessed April 28, 2023)
- <sup>11</sup> Scientific Integrity Fast-Track Action Committee of the National Science and Technology Council, Protecting the Integrity of Government Science, (January 2022). Available at: <https://www.whitehouse.gov/ostp/news-updates/2022/01/11/white-house-office-of-science-technology-policy-releases-scientific-integrity-task-force-report> (accessed April 28, 2023)
- <sup>12</sup> The White House, Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking (January 27, 2021). Available at: <https://www.whitehouse.gov/ostp/news-updates/2023/01/12/ostp-releases-framework-for-strengthening-federal-scientific-integrity-policies-and-practices> (accessed April 28, 2023)
- <sup>13</sup> Scientific Integrity Fast-Track Action Committee of the National Science and Technology Council, Protecting the Integrity of Government Science, (January 2022). Available at: <https://www.whitehouse.gov/ostp/news-updates/2022/01/11/white-house-office-of-science-technology-policy-releases-scientific-integrity-task-force-report> (accessed April 28, 2023)