



American Environmental Health Studies Project

May 15, 2023

National Toxicology Program (NTP)
Board of Scientific Counselors (BSC)

RE: Correction to BSC WG report

Dear Chairperson Gray, members of the BSC, and members of the BSC Working Group:

This comment is in regard to the correction to the BSC WG report that you will be considering at your May 16, 2023 BSC meeting. I would appreciate if you could share this letter with all the BSC members and read it at the meeting.

The proposed correction that is posted on the NTP website and that you will be voting on removes the incorrect BSC WG comment that confused Standardized Mean Difference (SMD) with IQ point difference and made the incorrect inference that the loss of IQ from fluoride was very small. However, the correction has left unchanged the BSC WG comment that the NTP's authors' response to the original reviewer comment is "inadequate". This should be changed to "adequate" since the remaining part of the BSC WG comment after the deletion of the erroneous part agrees with the NTP's authors:

"The BSC WG **agrees** that subtle shifts in mean IQ at the population level could have a large impact. The BSC WG notes that fluoride exposure among individuals in optimally fluoridated areas could be higher or lower than 0.7 mg/L depending on personal behaviors and habits."

The second sentence of this BSC WG comment is almost a verbatim restatement of what the NTP authors had stated so it also does not justify classifying the NTP authors' response as "inadequate". Here is the NTP authors' statement that is so similar to the BSC WG restatement:

"... total fluoride exposure among individuals living in optimally fluoridated areas (0.7mg/L in drinking water) may be higher than 0.7mg/L, dependent on personal behaviors and habits. We discuss the potential for this type of variation in the manuscript."

However, the BSC WG has made two subtle changes in their restatement which could be interpreted as trying to downplay the NTP authors' conclusions and give the mistaken impression that no people in areas with drinking water fluoride concentrations of 0.7 mg/L may suffer loss of IQ. The BSC WG removed "total" from "total fluoride exposure" which makes the NTP's author's original statement less clear. The BSC WG

has also now underlined for emphasis the phrase “or lower” when referring to some individual exposures amongst the distribution of exposures found in a population with a drinking water fluoride concentration of 0.7 mg/L. It is tautological that in a distribution some individuals will have lower and some will have higher exposures than the mean. The issue is not whether individuals with **total** exposure lower than the mean may suffer loss of IQ but whether some individuals with **total** exposures **higher** than the mean will have **total** exposures in the same range (≥ 1.5 mg/L **total** exposure equivalent) that NTP is most confident causes loss of IQ.

The BSC WG’s emphasis on the irrelevant individuals with lower than mean total exposure appears to try to downplay or even contradict the conclusions of the NTP authors.

While this may seem to be a subtle point, it is disturbingly similar to what was done by the New Zealand Royal Society when they “corrected” the exact same error of conflating SMD with IQ point difference. Dr. Connett’s slides and written comments to the BSC describe what the Royal Society did after being alerted to their error:

- Their mistake was bad enough, but their “correction” was even worse. They simply changed “less than one IQ point” to “less than one standard deviation” without changing their conclusion that this was “of no practical significance”!
- Their sham review was used to support the introduction of mandatory fluoridation into NZ!

[Connett comments to BSC, April 28, 2023; slides 15-18]

https://ntp.niehs.nih.gov/ntp/about_ntp/bsc/2023/may/publiccomm/connett20230428_bsc_508.pdf

Given the history of how this same error was “corrected” but not really corrected by a biased government agency, I request that the BSC make two changes to their proposed correction of their assessment of comment 8.P. The word “inadequate” should be changed to “adequate”. The second sentence of the BSC WG comments should be removed because it is simply a restatement of the NTP authors’ reply but with reduced clarity and misleading emphasis.

I would be happy to answer any questions you may have.

Sincerely,



Christopher Neurath
Research Director
American Environmental Health Studies Project (AEHSP)