Uncertainty about pending challenges to the lawfulness of Ministry of Health fluoride directives to TLAs.

PSGR

Physicians & Scientists for Global Responsibility

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NOTES:

1. Public servants have a duty to balance risk. Fluoride is not a nutrient.[1]
2. Health Act 1956: S 23 General powers and duties of local authorities in respect of public health
3. Water Services Act 2021: S 3 Purpose of this Act; S 7 Meaning of safe in relation to drinking water.
4. Marginal reduction in prevention of caries, extent of marginal prevention is age dependent.[2]
5. NZ: Auckland and Wellington have been fluoridated since the 1960s but comprehensive risk assessment has never been a priority of successive governments.
6. NZ: Since the 1960s – no EPA risk assessment carried out despite dosing in drinking water and emissions to freshwater. See discussion NZ policy, NZ EPA and new freshwater policies, BOPRC, October 27, 2023.[3]
7. No risk assessment has been undertaken of the hydrofluorosilicic acid (HFA) formulation that will be added to drinking water supplies as per the tender on the TCC website.
8. NZ: Since the 1960s – increasing evidence cognitive & IQ risk. Yet our brain institutes do not research risk from fluoride in critical developmental stages.
9. Instead, the 'guideline level' of 1.5 mg/L was established in 1984. [4] The 'optimum' level was established in 1957 from earlier studies identifying the average levels in fluoridated drinking water. The 'optimum' level was established before fluoridated toothpaste was commonly used.
10. 1957: Claim was that fluoride becomes a toxic substance only at levels much above those relevant to any process of fluoridation.[5]
1. NZ: 2016 Bills Digest failed to weigh neurodevelopmental risk.[6] The 2017 Select Committee report & the 2021 final report following an Inquiry explain that the committees refused to analyse and consider public concerns on the health risk of fluoride in drinking water.[7] [8]

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[1] European Food Safety Authority (EFSA). Scientific Opinion on Dietary Reference Values for fluoride. EFSA Panel on Dietetic Products, Nutrition, and Allergies (NDA). EFSA Journal 2013;11(8):3332.
[2] Official Information Act request, Te Whatu Ora. School dental data – DMFT score data. ref: HNZ00030962
[3] PSGR presentation to Bay of Plenty Regional Council. Meeting October 26, 2023. Presentation on Fluoride, Human & Environmental health. At 2:30 for 18 minutes. https://www.youtube.com/watch?v=PFhi8KkxbcM
[4] World Health Organization (2008) Guidelines for Drinking-water Quality. Third edition, Incorporating the first and second Addenda. Volume 1, Recommendations. Geneva. https://www.who.int/publications/i/item/9789241547611
[5] New Zealand Report of the commission of inquiry on fluoridation of public water supplies. https://ia803404.us.archive.org/0/items/b32173441/b32173441.pdf
[6] https://www.parliament.nz/resource/en-NZ/51PLLaw24221/7aad9f4805384d65eecf806bd074318838cbcf95
[7] Health (Fluoridation of Drinking Water) Amendment Bill 208-2 https://www.legislation.govt.nz/bill/government/2016/0208/16.0/whole.html
[8] Inquiry into Supplementary Order Paper No. 38 on the Health (Fluoridation of Drinking Water) Amendment Bill. https://selectcommittees.parliament.nz/v/2/a9cb236d-8d9c-4fc9-9596-f5e3a073b72c

2. Papers in 2014[9] and the 2021 Update[10] by the Office of the Prime Minister's Chief Science Adviser (OPMSCA) are not comprehensive risk assessment designed to arrive at a NOAEL – No-observed-adverse-effect level, which regulatory authorities to derive safe exposure levels.

3. The 2021 Update did not follow a transparent methodology nor did the OPMSCA have a terms of reference. The OPMSCA panel was biased to oral and dental experts and did not have experts in neurodevelopmental toxicology and endocrinology. A favoured paper discussed in the 2021 Update, Guth et al may have been favoured as Guth acted in an advisory capacity.

4. The 2021 Update downplays earlier drafts of the NTP document to claim 'no convincing evidence.' Reviews far fewer papers with no formal methodology. The US NTP does not rate the Broadbent (2015) study nor Guth's conclusion as highly as the OPMSCA.

5. Evidence growing on neurological risk since the 1960s. US National Toxicology Program, September 2022[11] conducted a major review of all studies. Of the high quality studies:

    a. Cognitive development studies: 8/9 found an association with fluoride exposure
    b. IQ loss studies : of 72 only 19 were high quality - of those 18/19 found an association with fluoride exposure and lowered IQ

6. The delay on releasing the NTP document is because scientists who undertook the review are resisting political pressure to state that fluoridation in drinking water is safe at the levels children are exposed to. These scientists say 'less certainty of evidence' – 'less consistent' Little or no conclusive information at low exposure concentrations (less than 1.5 mg/L).

7. Because no regulatory risk assessment has been undertaken, no established lowest acceptable exposure to prevent cognitive harm or lowered IQ has been confirmed.

8. Lowest safe level of exposure should take into account existing exposure levels. Not done.

9. Fluoride in urine have been tested in New Zealand.[12] Highest exposures detected in age 5-7 group. The Ministry of Health has not discussed the implications of pre-existing exposures.

10. Intake is not fully excreted. Therefore, what level of fluoridation are children exposed to in Bay of Plenty? The mean level in urine for under 18-year-olds in the BOP was 0.502 mg/L.

11. 5-7 year olds had an 18% higher level than the average (0.63 mg/L) in country-wide testing at 0.74 mg/L. They might be expected to have a 18% higher level than the mean BOP level.

12. Han et al (2021): 'Approximately half of the fluoride intake is quickly deposited in calcified tissues like bones and teeth. Its release is a much slower process; that is, fluoride can accumulate in the body. It has long been known that excess fluoride intake can result in dental fluorosis in children or skeletal fluorosis in children and adults alike. More recent studies uncovered that fluoride can cause numerous other health problems, such as impaired thyroid and endocrine system function or developmental neurotoxicity.'[13]

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[9] Gluckman PD and Skegg D. Health effects of water fluoridation: A review of the scientific evidence. Office of the Prime Minister's Chief Science Advisor and the Royal Society of New Zealand, August 2014. https://www.royalsociety.org.nz/assets/documents/Health-effects-of-water-fluoridation-Aug-2014-corrected-Jan-2015.pdf

[10] Fluoridation: an evidence update, Office of the Prime Minister's Chief Science Advisor (June 2021). https://bpb-ap-se2.wpmucdn.com/blogs.auckland.ac.nz/dist/f/688/files/2020/01/OPMCSA-Fluoridation-Webpage-Content-11102021.pdf

[11] DRAFT NTP Monograph on the State of the Science Concerning Fluoride Exposure and Neurodevelopmental and Cognitive Health Effects: A Systematic Review. US National Toxicology Program, September 2022. https://ntp.niehs.nih.gov/sites/default/files/ntp/about_ntp/bsc/2023/fluoride/documents_provided_bsc_wg_031523.pdf

[12] 't Mannetje A, Coakley J, Douwes J. (2018) Report of the Biological Monitoring of Selected Chemicals of Concern. Results of the New Zealand biological monitoring programme, 2014-2016. Technical Report 2017-1. March. Centre for Public Health Research. Massey University. Wellington

[13] Han J, Kiss L, Mei H, Remete AM, Chemical Aspects of Human and Environmental Overload with Fluorine. Chem Rev. 2021 Apr 28;121(8):4678-4742. doi: 10.1021/acs.chemrev.0c01263.