



Water Fluoridation

New Zealand College of Public Health Medicine Policy Statement

Policy statement

The New Zealand College of Public Health Medicine (NZCPHM) endorses community water fluoridation as an important public health measure to maintain oral health, prevent tooth decay and reduce health inequities.

This statement updates and replaces the NZCPHM's Water Fluoridation policy statement of June 2013.

Key message

The NZCPHM supports community water fluoridation as an effective and safe approach to prevent tooth decay and reduce inequities in oral health. These benefits are most pronounced for those at higher risk of poor oral health, including Māori and Pacific people and people living in more deprived areas.

The context of public health and NZCPHM policy statements

Public health is the art and science of preventing disease, prolonging life, and promoting health through the organised efforts of society.¹

Public health has historically been the main cause of improvements in human health.² Advances in public health in the last 100 years, such as vaccination, control of infectious diseases through clean water and improved sanitation, and the recognition of tobacco use as a health hazard, have led to improvements in health and wellbeing, and a substantial increase in life expectancy.³

The NZCPHM represents the medical speciality of public health medicine in New Zealand. Public health medicine is defined as the branch of medicine concerned with the epidemiological analysis of the health and health care of populations and population groups. It involves assessing population health and health care needs, developing policy and strategy, undertaking health promotion, controlling and preventing disease, and organising services. Public health is focused on achieving health equity across ethnic, socioeconomic, age, ability, and cultural groups, and promoting environments in which everyone can be healthy.⁴

Public health medicine specialists have a professional responsibility to act as advocates for health for everyone in society.⁵⁻⁷ For this reason, the NZCPHM advocates for and supports evidence-informed⁷ equity-enhancing⁸ policy for health and wellbeing that accords with te Tiriti o Waitangi, the United Nations Sustainable Development Goals, and health promotion and Health in All Policies approaches, recognising that each of these is grounded in the societal,ⁱ economic and environmental determinants of health.⁶⁻¹⁶

ⁱ Societal determinants of health include commercial, political, governance, economic, cultural, even religious determinants. Together these societal structures help create the conditions for health and disease. Each of them eventually impacts on a person's health in a positive or negative way.

For further information on the context of public health and NZCPHM policy statements, go to the [NZCPHM website](#).

Background

Community water fluoridation helps prevent tooth decay and reduces inequalities in oral health. Tooth decay is a common condition in New Zealand causing pain, infection, loss of teeth and loss of self-esteem. Oral pain can stop a person from eating, working, and sleeping. Tooth decay poses extra risks for people with specific health problems – for example, valvular heart disease, congenital heart disease, recent cardiac surgery, renal disease, bleeding disorders, and low immunity.

The benefits of community water fluoridation are most pronounced for those at higher risk of poor oral health. In New Zealand, Māori and Pacific people and people living in more deprived areas experience poorer oral health outcomes compared to other New Zealanders.¹⁷ Recent New Zealand studies have associated community water fluoridation with both reduced prevalence of severe caries¹⁸ and reduced dental hospital admissions¹⁹ in children, with the latter association most marked for children living in our most socioeconomically deprived areas.

The mineral fluoride occurs naturally in water supplies in New Zealand but mostly at levels too low to provide protection against tooth decay. Community water fluoridation allows for the adjustment of fluoride levels in a public water supply to a level where protection against tooth decay can occur. The New Zealand Ministry of Health recommends that the level of fluoride in water be adjusted to between 0.7 and 1.0 parts per million (ppm).²⁰

Community water fluoridation programmes have been running in countries with low natural amounts of fluoride in drinking water supplies for over seventy years. There is consistent evidence of the effectiveness and safety of these programmes in assisting in the maintenance of oral health of these communities, regardless of social, economic or cultural group.²¹

After a thorough review of the evidence, the findings of a joint report by the Officer of the Prime Minister's Chief Science Advisor and The Royal Society Te Apārangi issued in 2014²¹ (and updated in 2021) have been:

Given the caveat that science can never be absolute, the panel is unanimous in its conclusion that there are no adverse effects of fluoride of any significance arising from fluoridation at the levels used in New Zealand. In particular, no effects on brain development, cancer risk or cardiovascular or metabolic risk have been substantiated, and the safety margins are such that no subset of the population is at risk because of fluoridation.

A fresh update, which has considered new research and comprehensive reviews internationally published since the 2014 joint report, has found and reiterated that the above conclusions remain appropriate.²²

Community water fluoridation is most effective alongside toothbrushing with fluoride toothpaste (as brushing helps to remove the bacteria found in plaque and keeps gums healthy), but community water fluoridation provides additional benefits for community oral health above that of brushing on its own.²³ A healthy, low sugar diet and regular dental check-ups also contribute to good oral health.

Community water fluoridation is supported by a number of national and international organisations including:

- The New Zealand Ministry of Health²⁰
- Royal Australasian College of Physicians²⁴

- The New Zealand Medical Association²⁵
- The New Zealand Dental Association²⁶
- Public Health Association of New Zealand²⁷
- New Zealand Royal Society²¹
- Australian Government National Health and Medical Research Council²⁸
- Public Health Association Australia²⁹
- World Health Organization³⁰
- U.S. Department of Health and Human Services³¹
- FDI World Dental Federation³²
- American Dental Association³³
- Canadian Agency for Drugs and Technology in Health³⁴

Recommendations

Community water fluoridation is cost-saving.³⁵ Adding fluoride is a population-wide approach affecting the whole population served by a particular water supply, and can be legally justified as a public health measure.³⁶⁻³⁹

The NZCPHM holds that there is considerable evidence to support community water fluoridation as the most effective approach to prevent tooth decay and reduce oral health inequities in New Zealand.^{21,22}

Links with other NZCPHM policies

Health Equity

Māori Health

First 1000 days of life

Acknowledgement

This policy statement was developed by the NZCPHM Policy Committee, NZCPHM members, and staff. Authorship or review is recorded in the list of policy statement main authors on the College's Policy Statements webpage at <https://www.nzcphm.org.nz/policy-publications>.

References and further information

1. Acheson D. Public Health in England: The Report of the Committee of Inquiry into the Future Development of Public Health Function. London: HMSO, 1988.
2. World Health Organization. WHO Regional Committee for Europe: Advancing public health for sustainable development in the WHO European Region. EUR/RC68/17. Copenhagen: WHO Regional Office for Europe, 2018. (http://www.euro.who.int/_data/assets/pdf_file/0004/380029/68wd17e_AdvancePublicHealth_180624.pdf?ua=1)
3. Centers for Disease Control and Prevention. Ten Great Public Health Achievements -- United States, 1900-1999. MMWR Morb Mortal Wkly Rep. 1999;48(12):241-3. (<https://www.cdc.gov/mmwr/preview/mmwrhtml/00056796.htm>)
4. New Zealand College of Public Health Medicine. A Prescription for Health and Equity for All. NZCPHM briefing for the Incoming Minister of Health. Wellington: NZCPHM, 2017. (https://www.nzcphm.org.nz/media/108722/2017_bim_a_prescription_for_health_and_equity_for_all_final.pdf)
5. World Health Organization. Health Promotion Glossary. Geneva: WHO, 1998. (<http://www.who.int/healthpromotion/about/HPR%20Glossary%201998.pdf>)

6. New Zealand Medical Association. Consensus statement on the role of the doctor in New Zealand. NZMA Position Statement. Wellington: NZMA, 2011.
(<https://www.nzma.org.nz/publications/role-ofthe-doctor-consensus-statement>)
7. Gluckman P. Enhancing evidence-informed policy making: a report by the Prime Minister's Chief Science Advisor. Auckland: Office of the Prime Minister's Chief Science Advisor, 2017.
(<http://www.pmcsa.org.nz/wp-content/uploads/17-07-07-Enhancing-evidence-informed-policy-making.pdf>)
8. New Zealand College of Public Health Medicine / New Zealand Medical Association. NZCPHM Policy Statement on Health Equity (adopting the New Zealand Medical Association Position Statement on Health Equity 2011). Wellington: NZCPHM, 2016.
(https://www.nzcpmh.org.nz/media/58923/2016_11_17_nzcpmh_health_equity_policy_statement.pdf)
9. New Zealand College of Public Health Medicine. NZCPHM Policy Statement on Māori Health. Wellington: NZCPHM, 2015.
(https://www.nzcpmh.org.nz/media/89786/2015_11_30_m_ori_health_policy_statement.pdf)
10. United Nations. Sustainable Development Goals.
(<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>)
11. World Health Organization. The Ottawa Charter for Health Promotion. First International Conference on Health Promotion, Ottawa, 21 November 1986.
(<http://www.who.int/healthpromotion/conferences/previous/ottawa/en/index1.html>)
12. World Health Organization. The Bangkok Charter for Health Promotion in a Globalized World. 2005.
(http://www.who.int/healthpromotion/conferences/6gchp/hpr_050829_%20BCHP.pdf)
13. World Health Organization. Adelaide Statement II. Outcome Statement from the 2017 International Conference Health in All Policies: Progressing the Sustainable Development Goals. 2017.
(http://www.who.int/social_determinants/SDH-adelaide-statement-2017.pdf)
14. World Health Organization. Health in All Policies (HiAP) Framework for Country Action. Geneva: WHO, 2013.
(<http://www.who.int/healthpromotion/frameworkforcountryaction/en/>)
15. United Nations. Transforming our world: the 2030 Agenda for Sustainable Development. 2015.
(<https://sustainabledevelopment.un.org/post2015/transformingourworld>)
16. Ministry of Health. Māori health models – Te Pae Mahutonga. 2017.
(<https://www.health.govt.nz/ourwork/populations/maori-health/maori-health-models/maori-health-models-te-pae-mahutonga>)
17. Ministry of Health. Our Oral Health: Key findings of the 2009 New Zealand Oral Health Survey. Wellington: Ministry of Health, 2010.
18. Schluter J, Hobbs M, Atkins H, Mattingly B, Lee M. Association between community water fluoridation and severe dental caries experience in 4-year-old New Zealand children. JAMA Pediatr. 2020. 174(10):969-76.
(<https://jamanetwork.com/journals/jamapediatrics/article-abstract/2768832>).
19. Hobbs M, Wade A, Jones P, Marek L, Tomintz M, et al. Area-level deprivation, childhood dental ambulatory sensitive hospitalizations and community water fluoridation: evidence from New Zealand. Int J Epidemiol. 2020;49(3):908-16.
(<https://academic.oup.com/ije/article-abstract/49/3/908/5826797>)
20. Ministry of Health. Fluoride and oral health. Wellington: Ministry of Health, 2018.
(<http://www.health.govt.nz/our-work/preventative-health-wellness/fluoridation>)
21. Gluckman P, Skegg D. Health effects of water fluoridation: A review of the scientific evidence. Auckland & Wellington: Office of the Prime Minister's Chief Science Advisor (OPMCSA) & The Royal Society of New Zealand, 2014.
(<https://www.pmcsa.org.nz/wp-content/uploads/Health-effects-of-water-fluoridation-Aug2014.pdf>)
22. Office of the Prime Minister's Chief Science Advisor. Fluoridation: an update on the evidence. 3 June 2021.
(<https://www.pmcsa.ac.nz/topics/fluoridation-an-update-on-evidence/>)
23. Beaglehole R, Benzian H, Crail J, Mackay J, King J, et al. The oral health atlas: Mapping a neglected global health issue. Brighton: FDI World Dental Federation, 2009.
24. Royal Australasian College of Physicians. Submission to the Health Select Committee on the Health (Fluoridation of Drinking Water) Amendment Bill. Wellington: RACP, 2017.

- https://www.racp.edu.au//docs/default-source/advocacy-library/racp-submission-to-the-health-select-committee-on-the-health-fluoridation-of-drinking-water-amendment-bill.pdf?sfvrsn=57ee3d1a_4
25. New Zealand Medical Association. Position Statement on Community Water Fluoridation. Wellington: NZMA, 2015. (https://assets-global.website-files.com/5e332a62c703f653182faf47/5e332a62c703f636ce2fc3e3_Community-Water-Fluoridation-Position-Statement.pdf)
 26. New Zealand Dental Association. NZDA Position Statement Water Fluoridation. Auckland: NZDA, 2020. (https://www.nzda.org.nz/assets/files/Standards_Guidelines/Position_Statements/Position_Statement_Water_Fluoridation.pdf)
 27. Public Health Association of New Zealand. Community Water Fluoridation policy statement. Wellington: PHANZ, 2017. (<https://www.pha.org.nz/Policy-Statements>, <https://app.box.com/s/pmt184umbz3twabmywgvpmz2tuyor7qb>)
 28. Australian Government National Health and Medical Research Council. Information Paper – Water fluoridation: dental and other human health outcomes. Canberra: NHMRC, 2017 (<https://www.nhmrc.gov.au/about-us/publications/water-fluoridation-dental-and-other-human-health-outcomes>)
 29. Public Health Association Australia. Oral Health Policy. Curtin: PHAA, 2020. (<https://www.phaa.net.au/documents/item/4565>)
 30. Petersen P, Lennon M. WHO Effective use of fluorides for the prevention of dental caries in the 21st century; the WHO approach. Community Dent Oral Epidemiol. 2004;32:319-21.
 31. Centers for Disease Control and Prevention. Statement on the evidence supporting the safety and effectiveness of community water fluoridation. Atlanta: CDC, 2018. (<https://www.cdc.gov/fluoridation/guidelines/cdc-statement-on-community-water-fluoridation.html>)
 32. FDI World Dental Federation. Promoting Dental Health through Water Fluoridation. Geneva: FDI, 2008. (<http://www.fdiworldental.org/media/11327/Promoting-dental-health-through-water-fluoridation-2008.pdf>)
 33. American Dental Association. American Dental Association Supports Fluoridation. Chicago: ADA, 2017. (<https://www.ada.org/en/public-programs/advocating-for-the-public/fluoride-and-fluoridation/ada-fluoridation-policy>)
 34. Canadian Agency for Drugs and Technology in Health. Community water fluoridation programs – evidence highlights. Ottawa: CADTH, 2019. (<https://www.cadth.ca/sites/default/files/pdf/ht0022-fluoridation-evidencehighlight-e.pdf>)
 35. Moore D, Poynton M. Review of the benefits and costs of water fluoridation in New Zealand. Report for the Ministry of Health. Wellington: Sapere Research Group, 2015. (<https://www.health.govt.nz/system/files/documents/publications/review-benefits-costs-water-fluoridation-new-zealand-apr16.pdf>)
 36. New Zealand Supreme Court. New Health New Zealand Inc v South Taranaki District Council - [2018] NZSC 59, 27 June 2018. (<https://www.courtsofnz.govt.nz/cases/new-health-new-zealand-incorporated-v-south-taranaki-district-council-1>)
 37. New Zealand Supreme Court. New Health New Zealand Inc v South Taranaki District Council - [2018] NZSC 60, 27 June 2018. (https://www.courtsofnz.govt.nz/assets/cases/2018/nhst_1.pdf)
 38. New Zealand Supreme Court. Media release - New Health New Zealand Incorporated v South Taranaki District Council and Attorney-General for and on behalf of the Minister of Health. Wellington: NZSC, 27 June 2018. (<https://www.courtsofnz.govt.nz/assets/cases/2018/nhmr.pdf>)
 39. Hedley H. Public drinking water fluoridation and the right to refuse medical treatment – the Supreme Court wades in. New Zealand Law Society LawTalk, 2018;922:24-5. (<https://www.lawsociety.org.nz/news/lawtalk/issue-922/public-drinking-water-fluoridation-and-the-right-to-refuse-medical-treatment-the-supreme-court-wades-in/>)

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