

FLUORIDATION —THE FACTS

1. EFFECTIVE

The fluoridation of water supplies is effective—50% to 70% reduction in dental decay has been proved around the world. In Bacchus Marsh, fluoridated in 1962, dental decay has been halved.

2. SAFE

It is safe—The Royal College of Physicians of England have recently issued a full report confirming the complete safety of controlled water fluoridation. This supports the view held by leading health authorities throughout the world, including the World Health Organisation.

3. INEXPENSIVE

It is inexpensive—The cost of \$1.5 million, installation for Melbourne, and future supplies of fluoridation at 16c per person per year, even when much of the water is wasted, is tiny when compared with the future savings in dental treatment which costs at least \$50 million per year in Victoria.

Remember, water fluoridation is safe, effective and cheap.

Do not be misled by false claims or scare tactics

The Australian Dental Association will provide a Fluoridation Information Service to the public. From Monday, 15th March to Friday, 19th March, queries will be answered from 6.00 p.m. to 10.00 p.m. by telephoning 24 4576. Inserted for public information by the Australian Dental Association (Victorian Branch).

WATER FLUORIDATION

Although fluoridation of community water supplies has previously been a contentious issue in Victoria, as described by Gavan Oakley on pages 62–3, strong evidence of its efficacy to safely prevent decay, combined with bipartisan political support, has led to its extension to 90 per cent of the state's population.¹

Fluorides are naturally occurring compounds found in plants and rocks. They are also found at very low levels in almost all fresh water. Community water fluoridation is the controlled addition of a fluoride compound to a public water supply in order to bring the fluoride concentration up to a level (one part per million) that prevents tooth decay without causing any ill effects. Some water supplies in Victoria have naturally occurring fluoride at this prevention level. Universal access to fluoride for caries prevention has been recognised by the World Health Organization as part of the basic right to human health.² The Australian National Health and Medical Research Council (NHMRC) 'strongly recommends community water fluoridation as a safe, effective and ethical way to help reduce tooth decay across the population'.³

The first town in Victoria to be fluoridated was Bacchus Marsh (about 50 kilometres north-west of Melbourne), in 1962. The city and suburbs of Melbourne followed in 1977. Water supplies in rural Victoria have been progressively fluoridated since that time, particularly through a focused and well-funded government program between 2004 and 2010, which led to more than 700,000 additional Victorians benefiting from a fluoridated water supply.⁴

The most recent NHMRC review found that water fluoridation reduces tooth decay by 26 to 44 per cent in children, and by 27 per cent in adults.⁵ Recent research in Australia found that children of five and six years of age who had lived more than half their lives in fluoridated areas had 50 per cent less decay in their primary teeth than did children who had not lived in fluoridated areas. Children 12 and 13 years old who had lived more than half their lives in fluoridated areas had 38 per cent less decay in their adult teeth than did children who had not lived in fluoridated areas.⁶

By reducing tooth decay, community water fluoridation reduces the risk of loss of teeth, time away from work and school, and the need for treatment under general anaesthesia. There are fewer cavities, less-severe cavities, less need for fillings and

Cat. 212 Australian Dental Association (Sydney, est. 1928), 'Fluoridation—The facts', published in *The Progress Press*, 17 March 1976, newspaper cutting, 38.4 × 26.7 cm. HFADM 3801, gift of Professor Mike Morgan 2019, Henry Forman Atkinson Dental Museum, University of Melbourne.

removing teeth, and less pain and suffering because of tooth decay. Community water fluoridation has been shown to save money, both for families and the health care system. The return on investment for community water fluoridation varies with the size of the community, increasing as the community size increases. Fluoridating water in Australia is a population-wide investment. In Australia, for every dollar that is spent on fluoridation, between \$7 and \$18 is saved due to avoided treatment costs.⁷ It has been estimated that, following the introduction of water fluoridation in Victoria, the community has saved about \$1 billion over 25 years, through avoided expenditure on dental treatment and fewer days absent from work or school.⁸ Water fluoridation has been recognised by the Public Health Association of Australia as among the top-10 public health success factors in Australia over the last 20 years.⁹ The Centers for Disease Control in the United States have included water fluoridation in their ‘Ten great public health achievements of the 20th century’.¹⁰

More than half a million Victorians live on water grids that do not have community water fluoridation. *Healthy mouths, healthy lives: Australia’s national oral health plan 2015–2024* states that communities of more than 1000 people should have a reticulated fluoridated water supply. Given disparities in oral health between different groups of people, inequalities that can exist in access to dental care, and the improved design and reducing cost of fluoridation plants, extending coverage to smaller communities may be appropriate.¹¹

The fluoridation of Victoria’s drinking water supplies is regulated by the *Health (Fluoridation) Act 1973*. For more information, visit the website of the Victorian Department of Health and Human Services.¹²

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1 A Neil, ‘Water fluoridation in Victoria, Australia: The value of national research’, *Community Dentistry and Oral Epidemiology*, vol. 40, suppl. 2 (October 2012), pp. 71–4.

2 PE Petersen, ‘World Health Organization global policy for improvement of oral health—World Health Assembly 2007’, *International Dental Journal*, vol. 58, no. 3 (2008), pp. 115–21.

3 National Health and Medical Research Council, *Water fluoridation and human health in Australia: Questions and answers*, Australian Government Department of Health and Ageing, 2017.

4 Neil, ‘Water fluoridation in Victoria’.

5 NHMRC, *Water fluoridation and human health in Australia*.

6 AJ Spencer et al., ‘Preventive benefit of access to fluoridated water for young adults’, *Journal of Public Health Dentistry*, vol. 77, no. 3 (Summer 2017), pp. 263–71.

7 AC Campain et al., ‘The impact of changing dental needs on cost savings from fluoridation’, *Australian Dental Journal*, vol. 55, no. 1 (March 2010), pp. 37–44; S Cicketic et al., ‘Drinking water fluoridation in South East Queensland: A cost-effectiveness evaluation’, *Health Promotion Journal of Australia*, vol. 21, no. 1 (April 2010), pp. 51–6; LJ Cobiac & T Vos, ‘Cost-effectiveness of extending the coverage of water supply fluoridation for the prevention of dental caries in Australia’, *Community Dentistry and Oral Epidemiology*, vol. 40, no. 4 (August 2012), pp. 369–76; NSW Health, *Water fluoridation in NSW*, NSW Government, September 2013.

8 National Health and Medical Research Council, *Information Paper—Water fluoridation: Dental and other human health outcomes*, Canberra: NHMRC, 2017.

9 Public Health Association of Australia, *Top 10 public health successes over the last 20 years*, PHAA Monograph Series No. 2, Canberra: Public Health Association of Australia, 2018.

10 VH Murthy, ‘Community water fluoridation: One of CDC’s “10 great public health achievements of the 20th century”’, *Public Health Reports*, vol. 130, no. 4 (July–August 2015), pp. 296–98.

11 Oral Health Monitoring Group, *Healthy mouths, healthy lives: Australia’s national oral health plan 2015–2024*, COAG Health Council, 2015.

12 ‘Water fluoridation in Victoria’, *health.vic: Victoria’s hub for health services & business*, Victoria State Government, www2.health.vic.gov.au/public-health/water/water-fluoridation/fluoride-information (viewed 14 December 2019).