

TO Community and Public Health Advisory
Committee

FROM Craig Johnston
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Memorandum

SUBJECT DHB POSITION STATEMENT ON
WATER FLUORIDATION

1. SUMMARY

1.1 Purpose

This paper proposes that MidCentral District Health Board adopt a position statement in favour of water fluoridation.

This paper requires a decision.

1.2 Executive Summary

Water fluoridation has been shown to have positive beneficial outcomes on dental health. There are areas in the MidCentral region that are both fluoridated and non-fluoridated. While Palmerston North, Feilding, Ashhurst and Linton are fluoridated, the Horowhenua region is not, and neither is the Tararua district.

MidCentral DHB is the principal advisor to territorial authorities within its boundaries on issues of public health and a MidCentral DHB position statement in favour of water fluoridation would bring us in line with Ministry of Health recommendations.

1.3 Recommendation

It is recommended:

that the attached statement be adopted in that MidCentral District Health Board supports water fluoridation as a safe, effective and affordable way to prevent tooth decay across the whole population.

Craig Johnston
Acting General Manager, Funding & Planning

2. BACKGROUND

Water fluoridation has been shown to have positive beneficial outcomes on dental health. A recent review by Sir Peter Gluckman and the Royal Society of New Zealand in 2014 identified water fluoridation as the safest and most appropriate approach for promoting dental public health, and found no adverse effects of any significance associated with its use at the levels used within New Zealand (1). Dental fluorosis, a tooth enamel defect characterised by areas of discolouration of the tooth enamel, has only even been found to be mild in New Zealand, with no difference in prevalence between fluoridated and non-fluoridated areas (2). While a number of other adverse effects of fluoride on health outcomes have been postulated, there is no good evidence for these⁴ in the levels of fluoride used for water fluoridation within New Zealand (1).

2.1 Water Fluoridation in the MidCentral Region

In the MidCentral region, we have areas that are both fluoridated and non-fluoridated. While Palmerston North, Feilding, Ashhurst and Linton are fluoridated, the Horowhenua region is not, and neither is the Tararua district. In keeping with international and national findings, data from the MidCentral region show improved oral health in children from fluoridated areas compared with non-fluoridated areas (3). Water fluoridation has been shown to be cost effective for populations above 1000 (1), suggesting there are still a number of townships in our area that would benefit from its use.

2.2 Advantages of a DHB Position Statement regarding Fluoridation

A MidCentral DHB position statement in favour of water fluoridation would bring us in line with Ministry of Health recommendations, as well as our neighbouring DHBs. MidCentral DHB is the principal adviser to territorial authorities within its boundaries on issues of public health and we have a statutory responsibility to do so. It would be useful for DHB staff advocating in favour of water fluoridation with local councils to have a DHB position statement. As a recent example, the referendum by the Hamilton City Council in 2013 on water fluoridation was strongly supported in favour of water fluoridation by the Waikato DHB, and the strong support from the DHB was vital to the water supply being re-fluoridated.

2.3 Cochrane Review of Water Fluoridation

More recently, a Cochrane review of water fluoridation was published in 2015 (4). It had strict inclusion and exclusion criteria, so that overall the recent Gluckman review (1) remains the most comprehensive overview of water fluoridation relevant to the New Zealand setting. The Cochrane review's overall finding was that water fluoridation is effective at reducing caries levels in both deciduous and permanent dentition in children (4). With regard to dental fluorosis, the Cochrane review estimated that the percentage of participants with fluorosis of aesthetic concern was approximately 12%, though it reported that 97% of the studies were at high risk of bias and there was substantial between-study variation. It also included studies with water fluoride levels much higher than those used in New Zealand. In this context, the finding from the 2009 New Zealand Oral Health Survey that there was no difference in prevalence of fluorosis between fluoridated and non-fluoridated areas (2) is reassuring.

2.4 Funding Considerations

A position statement in favour of water fluoridation does not require any additional funding from the DHB.

2.5 Equity Issues

Tooth decay is most severe amongst most deprived socioeconomic groups, and water fluoridation has the greatest benefit for people from more deprived groups (1). The 2009 New Zealand Oral Health Survey identified significant disparities in oral health, with Maori and Pacific Island peoples more likely to suffer from dental caries (2). New Zealand and international studies have shown that water fluoridation has a moderating effect on the relationship between dental caries and both ethnicity and socioeconomic status (2).

2.6 Linkage to DHB Strategies

The MidCentral DHB Oral Health Service Plan suggests as one of its initiatives that the DHB “work with communities which express an interest in fluoridation, but otherwise promote and encourage fluoride uptake through other means” (5). It recognises that water fluoridation is the most effective and efficient way to prevent dental caries. Given the scientific evidence supporting water fluoridation, as a DHB we should be more pro-active in our support of fluoridation.

3. CONCLUSION

In summary, there is a strong body of scientific evidence supportive of water fluoridation, and a DHB position statement in its favour would bring MidCentral DHB in line with both Ministry of Health recommendations, as well as our neighbouring DHBs. We recommend that the Community and Public Health Advisory Committee support the adoption of a MidCentral DHB position statement in favour of water fluoridation.

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Dr Phil Marshall
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4. REFERENCES

1. Office of the Prime Minister's Chief Science Advisor and the Royal Society of New Zealand. Health effects of water fluoridation: A review of the scientific evidence. 2014, New Zealand.
2. Ministry of Health. 2010. Our Oral Health: Key findings of the 2009 New Zealand Oral Health Survey. Wellington: Ministry of Health.
3. Loveday S. Child Health in the Horowhenua: Where are we now and where are we going? 2011, MidCentral DHB, New Zealand.
4. Iheozor-Ejiofor Z, Worthington HV, Walsh T, O'Malley L, Clarkson JE, Macey R, Alam R, Tugwell P, Welch V, Glenny AM. Water fluoridation for the prevention of dental caries. Cochrane Database of Systematic Reviews 2015, Issue 6. Art. No.: CD010856. DOI: 10.1002/14651858.CD010856.pub2.
5. MidCentral DHB. Oral Health Service Plan. 2005. Palmerston North, New Zealand.

ATTACHMENT: POSITION STATEMENT ON WATER FLUORIDATION, MIDCENTRAL DHB

The Ministry of Health and the MidCentral District Health Board strongly support water fluoridation as a safe, effective and affordable way to prevent and reduce tooth decay across the whole population. Most tooth decay is preventable, and water fluoridation is a simple way to help prevent it.

Water fluoridation has been shown to have positive beneficial outcomes on dental health. A 2014 review by Sir Peter Gluckman and the Royal Society of New Zealand identified water fluoridation as the safest and most appropriate approach for promoting dental public health, and found no adverse effects of any significance associated with its use at the levels used within New Zealand.

The benefits of community water fluoridation are most pronounced for those at risk of poor oral health. In New Zealand, Maori and Pacific people, and people living in more deprived areas, experience poorer oral health outcomes compared to other New Zealanders.

COMMON QUESTIONS ABOUT WATER FLUORIDATION

What is fluoride?

Fluoride is a naturally occurring mineral – it is found in air, soil, plants, water and lots of foods.

How does fluoride help our teeth?

It helps protect our teeth by making them stronger and reducing tooth decay.

Why do we need to add it to our drinking water?

Because New Zealand water supplies have very low levels of natural fluoride. In many local water supplies there is not enough fluoride to do the job of protecting teeth. Water fluoridation (adding fluoride to water supplies) tops up the fluoride to the best levels that provide protection against tooth decay.

Is it safe?

Yes. Scientific studies over 60 years have found water fluoridation to be very safe. It is supported by many international and local organisations including the World Health Organisation, World Dental Federation, New Zealand Ministry of Health, Royal Society of New Zealand, NZ Dental Association, NZ Maori Dental Association (Te Ao Marama), NZ Cancer Society, Plunket and many more.

Why do we need it, when toothpaste already has fluoride and we clean our teeth twice a day?

The 2009 New Zealand Oral Health Survey found that only 65 per cent of New Zealand adults and 15 per cent of preschoolers brush their teeth twice a day with regular strength fluoride toothpaste. So putting fluoride in the water supply makes sure everyone is covered and given some of the protection that is needed.

Fluoride in water does not replace using toothpaste and good teeth cleaning habits. They work together to provide the best protection for teeth. The levels of fluoride if you use toothpaste and fluoride in water are still well within the recommended fluoride limits.

Does it work?

Yes. A 2009 survey of oral health by the Ministry of Health showed that New Zealand adults and children who lived in fluoridated areas continue to have less dental decay than adults and children who lived in areas without fluoridated water.

Does water fluoridation cause illnesses or disease like bone fractures and cancer?

No. More than 60 years of scientific evidence shows water fluoridation is safe. Dental fluorosis, a tooth enamel defect characterised by areas of discolouration of the tooth enamel, has only ever been found to be mild in New Zealand, with no difference in prevalence between fluoridated and non-fluoridated areas.