

Health (Fluoridation of Drinking Water) Amendment Bill

SUBMISSION – Mary Byrne

2nd February 2017

This legislation is designed to extend fluoridation, remove community input and remove options for the citizens. I oppose this legislation as fluoridation should not be extended (it should be stopped) removing community input is undemocratic and the individual should always be given the right to informed consent to medical intervention.

Select Committee members are being badly advised by the Ministry of Health.

They claim that fluoridation improves oral health by reducing dental decay by 40%. This is misleading because:

- They base this claim on the 2009 Oral Health Survey whose authors warn should be used as a fluoridated study as they did not know life-time fluoridation status.
- There were only about 60 children in each age group in the Oral Health Survey
- This data is now out of date
- The NZ School Dental Statistics is a better data sample to use if lifetime fluoridation exposure is not known
- NZ studies prior to the 2009 Oral Health Survey (2005, 2008 and 2009) which does look at lifetime fluoridation exposure exist which are consistently ignored
- Committee members are not alerted to the fact that a large portion of New Zealand children have some form of dental fluorosis which is not “just cosmetic” and which individual are left to pay to repair or live with unsightly teeth

No modern reliable evidence of benefit

Supporting documents from the MoH do not spell out that the meta-analysis published by the Cochrane Collaboration said that even though they found a reduction in dental decay rates there were no modern studies (post the introduction of fluoride toothpaste) on which they could reliably make this claim. And even older studies were subject to bias and poor design.

New Zealand waters are not low in fluoride

The MoH do not advise you that there are only three countries in the world with mandatory fluoridation. They are also very misleading when they say that New Zealand waters are “low” in fluoride.

Natural fluoride levels in New Zealand water supplies vary but are generally the same as other country. The vast majority of surface water (lakes and rivers) is very low in fluoride, only about 0.1ppm or less. In some surface waters that are polluted by industry or unusual geology, lakes or rivers can have very high levels – tens or even hundreds of parts per million. These high fluoride water sourced are not generally used for drinking water. (The Waikato river contains 0.2ppm probably because of industry run-off.)

Rain water is typically very low in fluoride, almost always below 0.1ppm.

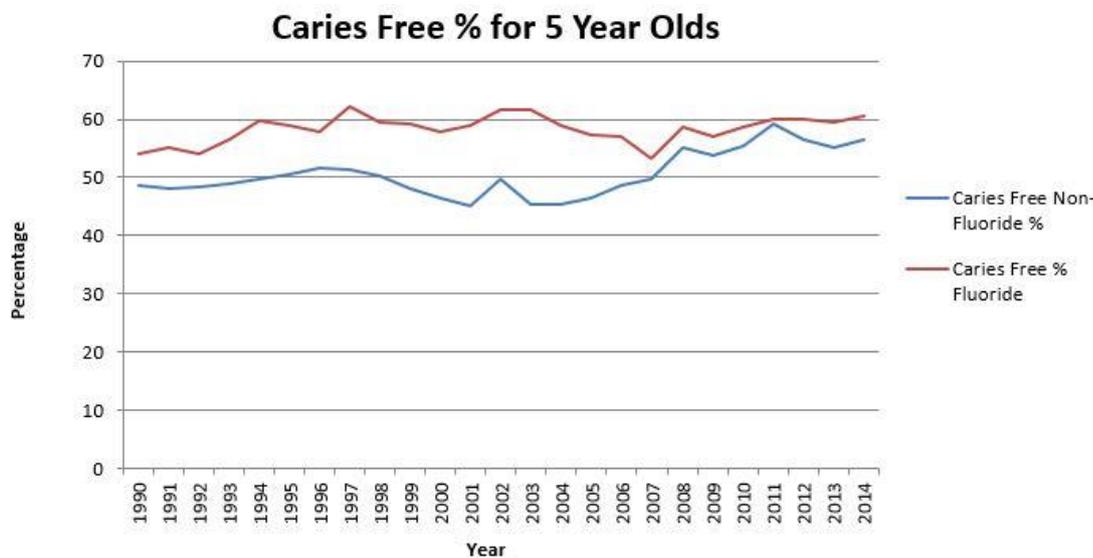
The average concentration of fluoride in all ground water used for drinking is around 0.1ppm or more. In parts of India, China and Africa ground water can contain very high levels of fluoride (e.g. 10ppm). This causes serious health problems with people developing a severe debilitating bone disorder, skeletal fluorosis as well as other adverse health effects. In India and China they endeavour to remove fluoride if it is more than 1ppm but it is very costly so not always achieved.

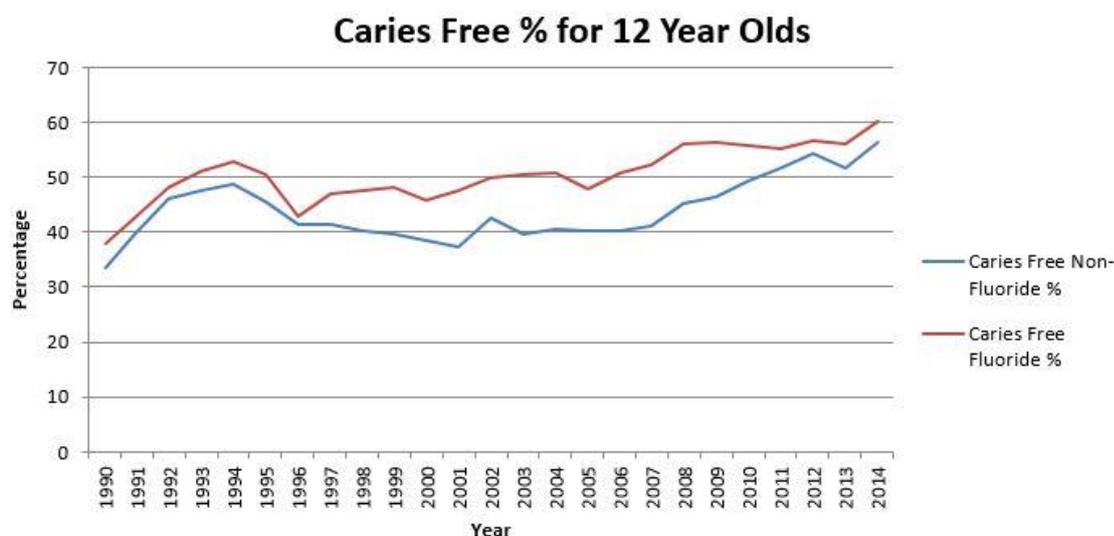
Some parts of the US also have high amounts of fluoride but the maximum allowable level is 4ppm. The US National Research Councils conducted a 3 year 12 member panel that concluded in 2006 that 4ppm was not protective of health. The US Environmental Protection Agency has still not changed its regulations but the US Department of Health and Human Services has reduced its target for fluoridation from 0.7 to 1.2 to a maximum of 0.7ppm. This is higher than the New Zealand Ministry of Health's recommendation of a range from 0.7 to 1ppm.

Why does the Ministry of Health want to extend fluoridation?

The question has to be asked - Why does Ministry of Health want to extend fluoridation when there is virtually no difference in dental decay rates in nonfluoridated areas compared to fluoridated ones and dental health is continuing to improve in nonfluoridated areas?

Data from New Zealand School Dental Statistics





Study published last year confirms this

Study published last year *Water fluoridation and ethnic inequities in dental caries profiles of New Zealand children*¹ found “Significant and sustained differences were observed between Māori and non-Māori children, and between CWF and non-CWF exposed groups. However, **a convergence of dental profiles** between non-Māori children in CWF and non-CWF regions was observed.” (my emphasis).

As there are many options for improving public dental health that are obviously working, there appears to be no other reason for extending fluoridation other than a desire to force fluoride onto to everyone.

Why not give fluoride tablets?

Because they don’t work.

The Ministry of Health no longer recommend fluoride tablets because they acknowledge that the incorporation of fluoride into the enamel does not make teeth more resistant to decay, so there is no point in swallowing fluoride. It is then obvious that adding fluoride to the drinking water does not make sense – no matter who says so.

Arguments that tablets do not provide a constant low dose coverage as they only increase fluoride in saliva for up to three hours are spurious as the instructions used to be put the tablets into a juice or a water jug to be consumed steadily throughout the day. Besides there is no way to know how often a person consumes water (or a product containing fluoride) to know if they are exposing their teeth any more often.

¹ <https://bmcoralhealth.biomedcentral.com/articles/10.1186/s12903-016-0180-5#main-content>

Wairarapa Case Study – Children in Non-fluoridated Wairarapa doing far better than children in Fluoridated Wairarapa

The cost the South Wairarapa District Council to install three minor injectors for their three towns; Greytown, Martinborough and Featherston would be \$500,000 plus \$25,000 ongoing. There is no justification for this as there is no proof that Wairarapa children will benefit.

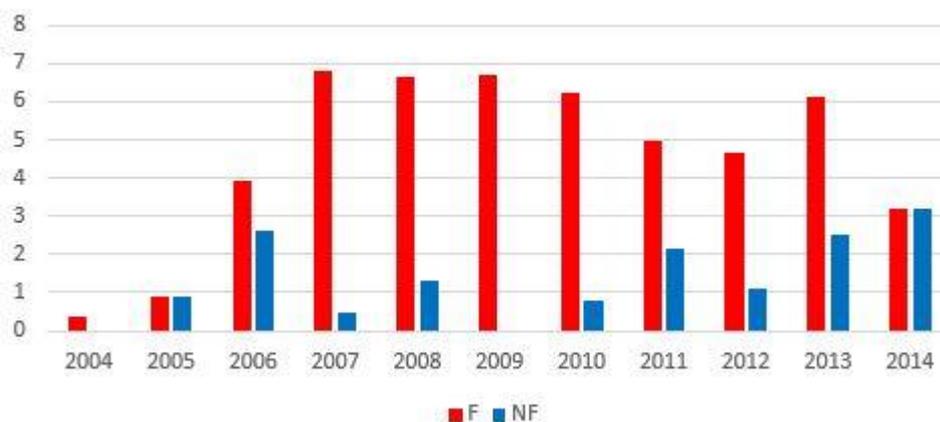


Table 5 Estimated cost of water fluoridation, by plant size

Plant size	Population	Fluoride chemical	Total capital set-up costs	Annual operating costs	Annual fluoride supply cost per m ³ /day
Neighbourhood	<100	Sodium fluoride (NaF)	\$112,500	\$6,700	\$3.57
Small	101–500		\$117,500	\$7,100	\$3.46
Minor	501–5,000		\$170,000	\$8,200	\$3.41
Medium	5,001–10,000	Fluorosilicic acid (FSA)	\$202,500	\$8,900	\$1.25
Large	10,001+		\$347,004	\$8,900	\$1.25

Data obtained under Official Information Act on the number of general anaesthetics required for 5 year olds shows that children in fluoridated Wairarapa are suffering more severe decay.

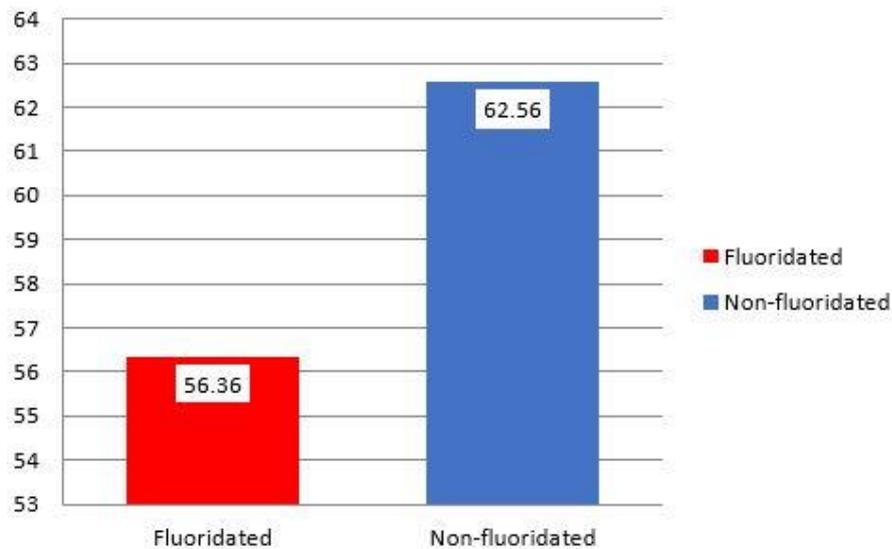
Wairarapa DHB Percentage of GAs for Dental Decay for 5 Year Olds children



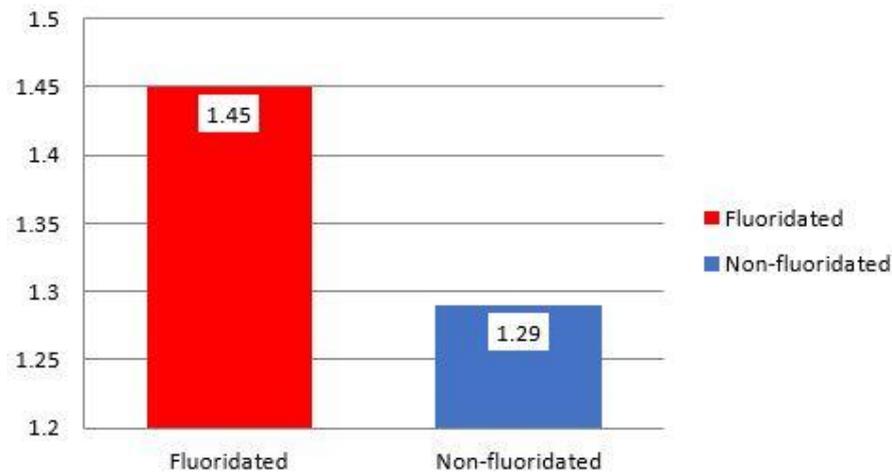
From the NZ School Dental Service

2014 - Wairarapa	Number of 5 Year olds	Number of Year 8 children
Fluoridated	195	169
Non-fluoridated	211	239

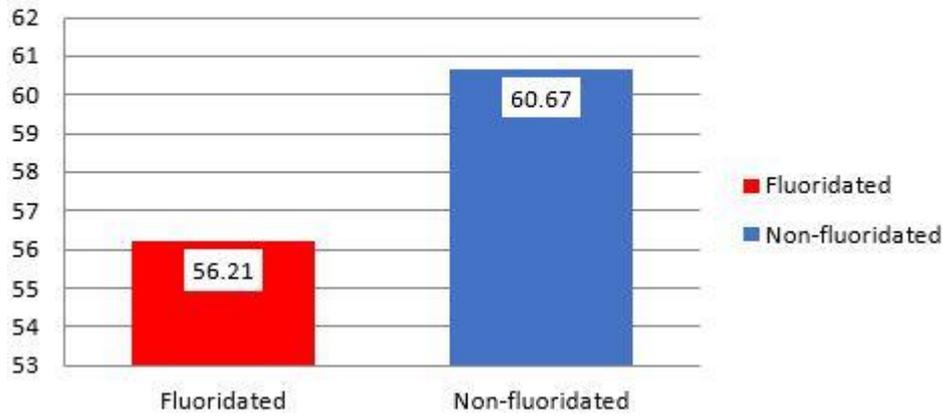
Wairarapa Percentage 5 Year olds
NO dental decay (2014)



Wairarapa 5 Year olds
Avg nbr fillings (2014)



Wairarapa Percentage Year 8 children NO dental decay (2014)



Wairarapa Avg nbr fillings Year 8 children (2014)

