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# **CURRENT KNOWLEDGE ATTITUDES AND BELIEFS ON THE ISSUE OF WATER FLUORIDATION:**

**A survey of the current knowledge, attitudes  
and beliefs on water fluoridation of the  
citizens and businesses served by the  
Onehunga Water Treatment Zone.**

A thesis submitted in partial fulfilment  
of requirements for the degree of  
Master of Science (Nutritional Science) at  
Massey University

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2001

# ABSTRACT

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The object of this study was to describe the current knowledge and beliefs on fluoridation of a community served by an unfluoridated water supply prior to the population being consulted on possible implementation of fluoridation by way of a resident's preference survey. Information was also sought on what sort of information the community wanted and the best way of providing it.

The survey was carried out by telephone, using random numbers from the Onehunga Borough water zone provide by Telecom. For the residents, race, gender and age quotas were based on the required sample size fitting the profile population. Businesses were recruited randomly. A semi-structured questionnaire was used and comparisons were made among responses by ethnicity, age and marital status and between the residents and businesses.

The research showed that there were appreciable gaps in the community's knowledge on fluoridation with important differences showing between ethnic groups and the younger and older age group. Younger persons and those who had never been married were less knowledgeable. It also found that the residents were more knowledgeable than businesses on this issue. Pacific people, Asians and others differed significantly from Europeans across most issues. Their lack of knowledge was the greatest. Pamphlets supplied by water-provider organisations or health professionals were the preferred methods of acquiring information on fluoridation. Doctors were preferred over dentists as sources of information, which suggests that dental health professionals need to take a more obvious role in public education on dental health and the role of fluoridation. Despite widespread ignorance concerning water fluoridation,

the majority of those surveyed wanted a voice, via a referendum, in the decision making process. Health authorities were the favoured decision-makers on fluoridation implementation.

This study showed that whilst there is a belief in the benefits of fluoridation within the community there is however a lack of knowledge and understanding especially amongst Pacific people and Asians and others and to a lesser extent amongst Maori and European on the issue of fluoridation. Important differences based on age are also demonstrated. Although there is widespread ignorance, people want a voice in the decision making process. Therefore in developing strategies and information to enable the population to acquire informed opinions on water fluoridation for their community, ethnic and age group differences need to be considered.

# ACKNOWLEDGEMENTS

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I wish to thank the following people most sincerely:

**Mrs Patsy Watson**, for all her enthusiasm, guidance, and encouragement given to me during this study.

**Dr Donald Campbell** for his guidance and support.

**Judy Scheffer** for her assistance in statistic analysis.

**Public Health Protection, Auckland Healthcare Services** as part of a contract to the Health Funding Authority for funding this survey.

The **Citizens** and **Businesses** of Onehunga who took part in this survey.

**My husband and daughters** for their support, love and encouragement.

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# GLOSSARY

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<b>AI</b>	Adequate intake – the estimated intake shown to maximally reduce caries within a population without causing side effects
<b>UL</b>	Tolerable upper intake level
<b>Approximal surfaces</b>	Touching surfaces between teeth
<b>Caries free</b>	No decayed, missing and filled teeth
<b>DMFT</b>	Decayed, missing and filled teeth due to caries in the permanent dentition
<b>DMFS</b>	Decayed, missing and filled surfaces of teeth due to caries in the permanent dentition; (dentists count five surfaces on each back tooth)
<b>dmft</b>	Decayed, missing and filled surfaces due to caries in the primary dentition
<b>Fluoridation</b>	The addition of certain compounds of fluorine, such as hexafluorosilicic acid, to water to produce a concentration close to 1ppm of fluoride
<b>Non-Fluoridated</b>	Not containing artificially added compounds of fluorine, for example, water containing low natural levels of fluoride ions

<b>Osteoporosis</b>	Thinning of the bones due to loss of bone mineral (there are many factors contributing to this process)
<b>Osteosarcoma</b>	A rare malignant bone tumour
<b>ppm</b>	Parts per million; mg of fluoride in 1 litre of water
<b>Systemic</b>	Entering or acting through the tissues of the body
<b>Topical</b>	Acting on the surface of teeth