

LEGISLATIVE COUNCIL

Wednesday, 29th September 2010

WATER FLUORIDATION

The Hon. A. BRESSINGTON (17:17): I move:

That this council—

Urges the Minister for Health, the Hon. John Hill MP and the Principal Water Quality Adviser for the Department for Health, Dr David Cunliffe, to attend the public meeting being held in Mount Gambier on 9 October 2010 on the issue of water fluoridation .

I will make it clear right at the onset of this that this is a long speech, not because I want to be a pain to anybody, but simply because I believe that this issue of fluoridation is one of the most important issues that we could possibly be debating at this point in the parliament. It has come about mainly because of the protests of the people in Mount Gambier who do not want their Blue Lake fluoridated and their water supply contaminated with a poisonous substance.

It has also come about because I believe that people should have a choice about whether or not they consume fluoride, and, quite frankly, if people believe that fluoride is beneficial for their teeth, then they can quite easily go to a chemist and buy a pharmaceutical grade tablet, dissolve it in their water and take it. They can use toothpaste, they can use mouthwashes, and that is absolutely their choice.

Right off the mark, I would like to congratulate the group known as Choice Mount Gambier for its persistence and diligence in this matter. It is my understanding that it has tried to get the ear of the minister for almost three years now. I have had two petitions taken around, with a total of 10,400 signatures between both those petitions of people objecting to having fluoride in their water. More than that, I do not believe that we fully appreciate what we have been doing to our water supply for about 50 years now.

We have also seen groups in Queensland, New South Wales, Victoria and now Mount Gambier running huge protests about fluoridation expansion in those states. I think it was Anna Bligh who, prior to her being elected as premier, signed a declaration stating that she did not support fluoride, and then in 2008 introduced legislation to introduce fluoridation to Townsville. There was a huge outcry about that.

As I said on *Today Tonight* earlier this week, I believe governments around this country now are going to suffer ramifications if they do not look at the evidence. What I am going to present to the council today is not my opinion: it is based on over 80 published peer reviewed studies of the harms of fluoride. These studies have been systematically ignored by governments for the last 50 years, some of the studies dating back to the 1950s. So, this is not a new concern; it is just something that has gone quiet because people have basically forgotten about it because they are drinking this water every day.

In January of this year, on ABC radio, Dr Cunliffe, Director of Water Quality for South Australian Health, made the commitment to the people of Mount Gambier that a public meeting would be held before fluoridation went online in that town. To date no meeting has

occurred and fluoride is only weeks away, I believe, from being added to the water supply. The group of people known as Choice Mount Gambier, led by Mr Alex Young, have lobbied for about three years against plans to fluoridate their town's supply. They have alerted the community to the dangers of fluoride and have established a network of very well respected professionals internationally on this topic.

The people of Mount Gambier owe this group a debt of gratitude because without them they would not have known what they were going to be exposed to. I personally acknowledge Mr Alex Young and the group of community-minded people of Choice, and I congratulate them on their efforts and commitment to this most important issue.

The issue of water fluoridation is perhaps a more emotive one than it needs to be. Rather than emotion, we would be far better off acknowledging the epidemiology, toxicology and medical papers to further this debate in a rational manner. We should really ask the question as to why public debate is such a negative thing when it comes to fluoridation because, after all, the argument used to fluoridate water supplies of constituents goes against the very grain of pharmacology and also eliminates the choice that should be the God-given right of us all.

The recent Nobel Prize Laureate in Medicine and Physiology, Dr Arvid Carlsson, who received his prize for his work on the brain, was one of the leading opponents of fluoridation in Sweden and part of the panel that recommended that the Swedish government reject that practice, which it did in 1971. He stated publicly:

I am convinced that water fluoridation, in the not too distant future, will be consigned to medical history. Water fluoridation goes against leading principles of pharmacotherapy, which is progressing from a stereotype medication of the type 'One tablet three times a day, please' to a much more individualised therapy as regards both dosage and the selection of drugs. The addition of drugs to the drinking water means exactly the opposite of an individualised therapy.

The simple explanation of this statement is that sodium fluoride is not added to our water to improve water quality: it is added to prevent tooth decay, which means that it is being used in a medicinal manner. It is impossible to measure the dose that any one person will receive and the frequency of that dose. It is impossible to monitor any adverse reactions to the substance, and it is impossible to adjust the dose according to individual needs.

Given that the Hon. Gail Gago spoke last sitting week on this topic, I am wondering whether she, as a healthcare professional, can think of any other form of treatment for any physical condition that would allow for mass medication in the way in which fluoride is being used currently in this state and in this country. Surely, the basis for providing any form of treatment for any condition is, first, diagnosis of that condition and then working on dosage for that individual person.

We have people ingesting a substance for tooth decay who may never suffer from that condition, and we have not considered the long-term consequences of providing treatment for a non-existent condition to these people. Dr Paul Connett, who has a BA Honours in Natural Sciences from Cambridge University and a PhD in Chemistry from Dartmouth College in the United States, and who has since 1993 been teaching in the Chemistry Department at St Lawrence University in New York and is currently tenured as a full professor, said in a paper co-written by Dr Hardy Limeback, Director of Dental Health Research in Canada:

Fluoridation is unethical because individuals are not being asked for their informed consent prior to medication. This is a standard practice for all medication and one of the key reasons why most of Western Europe has ruled against fluoridation and as one doctor has stated: 'No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice: 'Take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay. It is a preposterous notion.'

Dr Connett also states that:

According to the Agency for Toxic Substances and Disease Registry (1993), and other researchers such as Junco and Donadio 1972, Marier and Rose 1977 and Johnson 1979, certain subsets of the population may be particularly vulnerable to fluoride's toxic effects; these include: the elderly, diabetics, and people with poor kidney function. Can we in all good conscience force these people to ingest fluoride through their water supply on a daily basis for their entire lives?

There are also 14 Nobel Prize winners who object to fluoridation, and these are:

·Dr Arvid Carlsson, Nobel Prize in Medicine for work on the brain.

·Dr Giulio Natta, Nobel Prize in Chemistry; Chemical Engineer; Director of Industrial Chemistry Research Centre, Polytechnic Institute of Milan, Italy.

·Dr Joshua Lederberg, Nobel Prize in Medicine; World Health Organisation's Advisory Health Research Council; received the United States National Medal of Science in 1989; former Chairman of the Cancer Panel of the National Academy of Science.

·Sir Cyril Norman Hinshelwood, Nobel Prize in Chemistry, the University of Oxford.

·Nikolay Nikolayevich Semyonov, Nobel Prize in Chemistry 1956; District Director of the Institute of Chemical Physics, Moscow; Professor at Leningrad Polytechnic Institute and of Moscow State University; member of the USSR Academy of Science; Chemical Society of England and Royal Society of England.

·Hugo Theorell MD, Nobel Prize in Medicine; Director of Biochemistry Department, Nobel Medical Institute; President of the Swedish Medical Association; Stated Hazards of Fluoridation in a report to the Swedish Royal Medical Board.

·Walter Rudolf Hess, doctor MD.

·Dr Phil, Nobel Prize in Medicine; Professor of Physiology and former Director of Physiological Institute, University of Zurich.

·Sir Robert Robinson, Nobel Prize in Chemistry; Director of Shell Chemical Company; Professor of Chemistry, Oxford University.

·James B. Sumner, Nobel Prize in Chemistry; former director of Enzyme Chemistry, Department of Biochemistry and Nutrition, Cornwall University.

·Professor Atturi Virtanen, Nobel Prize in Chemistry; Director of Biochemical Institute Helsinki; President of the Finnish State Academy and Sciences and Art.

·Adolf F.J. Butenandt, Nobel Prize Winner in Chemistry; Director of the Max Planck Institute of Biochemistry; Professor of Physiology Chemistry, Munich University.

·Corneille Jean Francois Heymans, Nobel Prize winner in Medicine; Professor of Pharmacology, Pharmacodynamics and Toxicology; Director of Heymans Institute of Pharmacology and Therapeutics.

·William P. Murphy, Nobel Prize in Medicine; Lecturer in Medicine; Emeritus Harvard Medical School; Consultant in Haematology, Peter Bent Brigham Hospital in Boston.

·Hans von Euler-Chelpin, Nobel Prize winner in Chemistry; Stockholm University, President Chemical Society; Director, Institute for Research in Organic Chemistry.

The reason I mention them is because we say that there are no people of any credentials who oppose fluoridation. We also have a petition that has been signed by 3,147 professionals calling for an end to water fluoridation. I have a copy of the first 505 signatures, if members would care for a copy, to allow them to see the calibre of these signatories. I have randomly chosen some to show that these are highly qualified health professionals who have all concluded that artificial fluoridation should end immediately. They have come to that conclusion because of the research that is available.

They include Alan Abrams, member of the International Academy of Oral Medicine and Toxicology; Maria Acosta, Secretary to Quebec's Academy of Biological Dentistry, Montreal, Canada; Peter Alteri, Water Superintendent, Cortland, New York; American Academy of Environmental Medicine, Wichita, United States of America; Stephen S. Baer, past president International Academy of Oral Medicine and Toxicology, Sedona, USA; James Beck, Professor Emeritus of Medical Biophysics, University of Calgary, Canada; Douglas A. Balog, author of Law Review article on the illegality of artificial fluoridation, Palm Bay, United States; Rosalie Bertell, Regent of the Board, International Physicians for Humanitarian Medicine, Geneva, Switzerland, and retired president International Institute of Concern for Public Health, Toronto, Canada; and, last but not least, Dr Doug Everingham, former health minister of the Whitlam government of Australia.

Please note that the last signatory, Dr Doug Everingham, personally wrote to our Minister for Health, the Hon. John Hill, on 16 August 2010, stating that he believed there was enough evidence of concern not to continue with fluoridation. I will read his letter a bit further on. Those 3,147 professionals signed a formal petition calling for an end to fluoridation, and the preamble of the petition is as follows:

We , the undersigned professionals , come from a variety of disciplines but all have an abiding interest in ensuring that government public health and environmental policies be determined honestly, with full attention paid to the latest scientific research and to ethical principles. Eight recent events make action to end water fluoridation urgent.

1. The publication in 2006 of a 500-page review of fluoride's toxicology by a distinguished panel appointed by the National Research Council (part of the US National Academy of Sciences). The US Environmental Protection Agency (EPA) requested this review to

determine if a new drinking water standard is required. Contrary to news media coverage, the NRC report went far beyond concluding that the maximum contaminant level goal of 4 parts per million (4 ppm) is unsafe and should be lowered. The panel identified many research studies in which animals or humans drinking water close to, or even lower than, the 1 ppm level used for fluoridation showed numerous adverse health effects.

That is, I believe, the dosage that we are using in South Australia: one part per million. The statement continues:

These [adverse reactions] included: bone fractures, decreased thyroid function, impaired glucose tolerance (pre-diabetes), brain cell damage, lowered IQ [in children], kidney damage, arthritic-like conditions, symptoms characteristic of Alzheimer's disease and cancer. Considering the substantial variation in individual water intake, and the wide range of human sensitivity to any toxic substance, fluoridation at 1 ppm provides no margin of safety to protect against these adverse health effects.

2. The evidence provided by the US Centers for Disease Control and Prevention (CDC) in 2005 that 32% of American children have dental fluorosis — an abnormal discoloration and mottling of the enamel. This irreversible and sometimes disfiguring condition is caused by fluoride. Children are now being overdosed with fluoride, even in non-fluoridated areas, from water, swallowed toothpaste, foods and beverages processed with fluoridated water, and other sources. Fluoridated water is the easiest source to eliminate.

3. The American Dental Association's policy change, in November 2006, recommending that only the following types of water be used for preparing infant formula during the first 12 months of life: 'purified, distilled, deionized, demineralized, or produced through reverse osmosis.' This new policy, which was implemented to prevent the ingestion of too much fluoride by babies and to lower the risk of dental fluorosis, clearly excludes the use of fluoridated tap water. The burden of following this recommendation, especially for low income families, is reason alone for fluoridation to be halted immediately. Formula made with fluoridated water contains 250 times more fluoride than the average 0.004 ppm concentration found in human breast milk in non-fluoridated areas.

That is from an NRC report in 2006. The petition continues:

The CDC's concession, in 1999 and 2001, that the predominant benefit of fluoride in reducing tooth decay is TOPICAL and not SYSTEMIC. To the extent fluoride works to reduce tooth decay, it works from the outside of the tooth, not from inside the body. It makes no sense to drink it and expose the rest of the body to the long-term risks of fluoride ingestion when fluoridated toothpaste is readily available.

Fluoride's topical mechanism probably explains the fact that, since the 1980s, there have been many research reports indicating little difference in tooth decay between fluoridated and non-fluoridated communities. (Leverett, 1982; Colquhoun, 1984, 1985 and 1987; Diesendorf, 1986; Gray, 1987; Brunelle and Carlos, 1990; Spencer 1996; deLiefde, 1998; Locker, 1999; Armfield and Spencer, 2004; and Pizzo, 2007). Poverty is the clearest factor associated with tooth decay, not lack of ingested fluoride. According to the World Health Organisation, dental health in 12 year olds in non-fluoridated industrialised countries is as good, if not better, than those in fluoridated countries.

5. In 2000, the publication of the UK government sponsored ' York Review ' found that NONE of the studies purporting to demonstrate the effectiveness of fluoridation to reduce tooth decay were of grade A status ...(McDonagh et al, 2000).

That means that none were double-blind randomly selected case and control. The petition continues:

6. The publication in May 2006 of a peer- reviewed, case-control led study from Harvard University found a 5-7 fold increase in osteosarcoma (a frequently fatal bone cancer) in young men associated with exposure to fluoridated water during their 6th, 7th and 8th years (Bassin et al , 2006) . This study was surrounded by scandal as Elise Bassin's PhD thesis adviser, Professor Chester Douglas , was accused by the watchdog Environmental Working Group of attempting to suppress these findings for several years. While this study does not prove a relationship between fluoridation and osteosarcoma beyond any doubt, the weight of evidence and the importance of the risk call for serious consideration.

7. The admission by federal agencies in response to questions from a Congressional subcommittee in 1999-2000 , that the industrial grade waste products used to fluoridate over 90 % of America's drinking water supplies (fluorosilicate compounds) have never been subjected to toxicological testing nor received FDA approval for human ingestion .

This is, by the way, the same substance that we use to fluoridate our water. The petition continues:

8. The publication in 2004 of ' The Fluoride Deception ' by Christopher Bryson. This meticulously researched book showed that industrial interests , concerned about liabilities from fluoride pollution and health effects on workers , played a significant role in the early promotion of fluoridation. Bryson also details the harassment of scientists who expressed concerns about the safety and/or efficacy of fluoridation.

We call upon members of Congress (and legislators in other fluoridated countries) to sponsor the new Congressional (or Parliamentary) Hearing on Fluoridation so that those in government agencies who continue to support the procedure, particularly the Oral Health Division ... , be compelled to provide the scientific basis for their ongoing promotion of fluoridation. They must be cross-examined under oath if the public is ever to fully learn the truth about this outdated and harmful practice.

We call upon all medical and dental professionals, members of water departments, local officials, public health organisations, environmental groups and the media to examine for themselves the new documentation that fluoridated water is ineffective and poses serious health risks. It is no longer acceptable to simply rely on endorsements from agencies that continue to ignore the large body of scientific evidence on this matter — especially the extensive citations in the NRC (2006) report discussed above.

The untold millions of dollars that are now spent on equipment, chemicals, monitoring and promotion of fluoridation could be much better invested in nutrition education and targeted dental care to children from low income families. The vast majority of enlightened nations have done this. It is time for the United States and the few remaining fluoridating countries to recognise that fluoridation is outdated, has serious risks that far outweigh any minor benefits, violate sound medical ethics and denies freedom of choice. Fluoridation must be ended now.

If in fact we are going to force individuals to consume a toxic substance in the name of public health, then surely we have a responsibility to warn those who may be vulnerable to allow them the opportunity to seek alternative water supplies or, better still, I would think that a government that is forcing mass medication should accept the responsibility for providing either an alternative water source or providing the equipment available to extract the substance from the water. This would be an expensive exercise for government, given that the only method of removing fluoride from water is by reverse osmosis.

Why is it, we have to ask, that public health officials, unelected by the people, refuse to have a public debate on this issue, when it is by their decree that individuals are robbed of their right to refuse to ingest a toxic substance being used for a medical treatment? Again, Dr Paul Connett and Dr Hardy Limeback offer an explanation, and I quote:

In light of proponents of fluoridation refusal to debate this issue, Dr Edward Groth, a Senior Scientist at Consumers Union, observed that 'the political pro fluoridation stance has evolved into a dogmatic, authoritarian, essentially anti scientific posture, one that discourages open debate of scientific issues ' .

He goes on to say:

When it comes to controversy surrounding toxic chemicals, in vested interest traditionally do their very best to discount animal studies and quibble with epidemiological findings. In the past, political pressures have led government agencies to drag their feet on regulating asbestos, benzene, DDT, PCBs, tetraethyl lead, tobacco and dioxins. With fluoridation we have had a fifty year delay. Unfortunately, because government officials have put so much of their credibility on the line defending fluoridation , and because of the huge liabilities waiting in the wings if they admit that fluoridation has caused any increase in hip fractures, arthritis, bone cancer, brain disorders or thyroid problems, it will be very difficult for them to speak honestly and openly about the issue. But they must, not only to protect millions of people from unnecessary harm but to protect the notion that, at its core, public health policy must be based on sound science and not political expediency. They have a tool with which to do this: it's called the Precautionary Principle. In other words, if in doubt leave it out.

This is what most European countries have done, and their children's teeth have not suffered, while their public's trust has been strengthened. It is like a question from a Kafka play. Just how much doubt is needed in just one of the health concerns identified to override the benefit which, when qualified in the largest survey ever conducted in the United States, amounts to less than one tooth surface out of 128 in a child's mouth. For those who call for further studies, I say fine: take the fluoride of the water first and then conduct all the studies you want. This folly must end without further delay.

I do not want to hear that these comments have been made by an anti-fluoride professional who has not looked at all the evidence, because these comments were co-written by Dr Hardy Limeback, the Head of Preventative Dentistry at the University of Toronto in Canada, a professor with a PhD in biochemistry and a practising dentist who has done years of funded research in tooth formation, bone and fluoride. He was one of the 12 scientists who served on the National Academy of Science panel that issued the 2006 report, 'Fluoride in drinking water: a scientific review of the EPA standards'.

It was this research that changed Dr Limeback's view on fluoridation. As a dentist for many years, he accepted what he had been taught in the school of dentistry, until he became involved in the research on fluoride. He has stated publicly that he could no longer maintain what he had been trained to believe. We have health department officials who use the emotive issue of preventing tooth decay in children, even though that outcome is not a proven outcome among the dental profession pertaining to the ingestion of fluoride. Certainly many dental researchers and practitioners agree that any benefit that may be gained from fluoride is from topical application and not systemic ingestion. Again, Dr Paul Connett and Dr Limeback state:

While pro fluoridation officials continue to promote fluoridation with undiminished fervor, they cannot defend the practice in open public debate—even when challenged to do so by organizations such as the Association for Science in the Public Interest, the American College of Toxicology, or the US Environmental Protection Agency.

According to Dr. Michael Easley, a prominent lobbyist for fluoridation in the US:

Debates give the illusion that a scientific controversy exists when no credible people support the fluorophobics' view .

In other words, 14 Nobel Laureates and 3,147 professionals, as well as 95 per cent of governments around the world, have all got it wrong. Quite an arrogant view. These are some statements about why some countries have rejected fluoride:

Austria:

Toxic fluorides have never been added to the public water supplies in Austria.

Belgium:

This water treatment has never been of use in Belgium and will never be (we hope so) into the future. The main reason for that is the fundamental position of the drinking water sector that it is not its task to deliver medicinal treatment to people. This is the sole responsibility of health services. (Chr. Legros, Directeur, Belgaqua, Brussels, Belgium, February 28, 2000).

China:

Fluoridation is banned: 'not allowed'. Naturally high fluoride levels in water are a serious problem in China—

I have to add that that is calcium fluoride, not the sodium fluoride that we add to our water supply. China's statement continues:

Bartram said there were many other 'silent threats,' including excessive fluoride in the water supply in China, India and the Rift Valley in Africa. In China alone, 30 million people suffer crippling skeletal fluorosis . The Chinese government now considers any water supply containing over 1 ppm fluoride a risk for skeletal fluorosis ... In China, the World Health Organization has estimated that [due to previous artificial fluoridation] 2.7 million people have the crippling form of skeletal fluorosis.

I wonder if we can expect in the future to be covering the potential healthcare costs posed by this particular substance in our water. The statements continue:

Czech Republic:

Since 1993, drinking water has not been treated with fluoride in public water supplies throughout the Czech Republic. Although fluoridation of drinking water has not actually been proscribed it is not under consideration because this form of supplementation is considered:

- uneconomical (only 0.54% of water suitable for drinking is used as such...
- unecological (environmental load by a foreign substance)
- unethical ('forced medication')
- toxicologically and physiologically debateable (fluoridation represents an untargeted form of supplementation which disregards actual individual intake and requirements and may lead to excessive health-threatening intake in certain population groups; [and] complication of fluorine in water into non-biological active forms of fluor.

Denmark:

We are pleased to inform you that according to the Danish Ministry of Environment and Energy, toxic fluorides have never been added to the public water supplies. Consequently, no Danish city has ever been fluoridated.

It is also essential to know that less than five per cent of the world's countries actually fluoridate their water supply, Australia being one of only five countries that do that now. The statements continue:

Finland:

We do not favor or recommend fluoridation of drinking water. There are better ways of providing the fluoride our teeth need...Artificial fluoridation of drinking water supplies has been practiced in Finland only in one town, Kuopio, situated in eastern Finland and with a population of about 80,000 people (1.6% of the Finnish population). Fluoridation started in 1959 and finished in 1992 as a result of the resistance of local population. The most usual grounds for the resistance presented in this context were an individual's right to drinking water without additional chemicals used for the medication of limited population groups. A concept of 'force-feeding' was also mentioned. Drinking water fluoridation is not prohibited in Finland but no municipalities have turned out to be willing to practice it. Water suppliers, naturally, have always been against dosing of fluoride chemicals in to water.

France:

Fluoride chemicals are not included in the list of chemicals for drinking water treatment. This is due to ethical as well as medical considerations.

Germany:

Generally, in Germany fluoridation of treating water is forbidden—

Forbidden, Mr President—

The relevant German law allows exceptions to the fluoridation ban on application. The argumentation of the Federal Ministry of Health against a general permission of fluoridation of drinking water is the problematic nature of compulsory medication.

Hungary stopped fluoridation for technical reasons in the 1960s, however, despite technological advances, Hungary has chosen, because of evidence, to remain unfluoridated. In India, naturally high levels of fluorides in groundwater have affected at least tens of millions with skeletal fluorosis, often resulting in crippling skeletal fluorosis. The Indian government has been working to remove the fluoride from drinking water sources to alleviate this crisis. In India, 17 of its 32 states have been identified as 'endemic' areas, with an estimated 66 million people at risk from crippling skeletal fluorosis and 6 million people seriously affected. They have ended water fluoridation in India.

Israel recently suspended mandatory fluoridation until the issue is re-examined from all aspects: medical, environmental, ethical and legal. An Israeli Parliament representative stated:

From our experience in Israel and the world, when the fluoride issue is studied from all aspects it is rejected.

On 21 June 2006, the labor, welfare and health Knesset (Israeli Parliament) committee called on the Ministry of Health to freeze the extension of fluoridation of drinking water in Israel and to study the issue in depth in order to determine whether to continue with the project or to cancel it completely. Conclusions are to be expected within a year. Until then, municipalities and Mekorot (Israeli national water company) are not required to build new fluoride installations. Committee chairman MK (member of Knesset) Moshe Sharoni and MKs Ran Cohen and David Tal claimed during the investigation that the potential damage to public health and environment from fluoridation may be greater than the benefits from decreased dental cavities.

Japan rejected fluoridation as it '...may cause health problems...' The 0.8-1.5 mg regulated level is for calcium fluoride, which is naturally occurring fluoride, not the hazardous waste by-product which is added with artificial water fluoridation. The statements continue:

Luxembourg:

Fluoride has never been added to the public water supplies in Luxembourg. In our views, the drinking water isn't the suitable way for medicinal treatment and that people needing an addition of fluoride can decide by their own to use the most appropriate way, like the intake of fluoride tablets, to cover their [daily] needs.

Netherlands:

From the end of the 1960s until the beginning of the 1970s drinking water in various places in the Netherlands was fluoridated to prevent caries. However, in its judgment of 22 June 1973 in case No. 10683 (Budding and co. v the City of Amsterdam) the Supreme Court

(Hoge Road) ruled there was no legal basis for fluoridation. After that judgment, amendment to the Water Supply Act was prepared to provide a legal basis for fluoridation. During the process it became clear that there was not enough support from Parlement [sic] for this amendment and the proposal was withdrawn. '

Northern Ireland:

The water supply in Northern Ireland has never been artificially fluoridated except in 2 small localities where fluoride was added to the water for about 30 years up to last year. Fluoridation ceased at these locations for operational reasons. At this time, there are no plans to commence fluoridation of water supplies in Northern Ireland .

That is due to the latest research. The statements continue:

Norway:

In Norway we had a rather intense discussion on this subject some 20 years ago , and the conclusion was that drinking water should not be fluoridated.

In November 2004, after months of consultation, Scotland—which had been unfluoridated—rejected plans to add fluoride to the nation's water. The statements continue:

Sweden:

Drinking water fluoridation is not allowed in Sweden... New scientific documentation or changes in dental health situation that could alter the conclusions of the Commission have not been shown. '

In April 2003, the City Parliament of Basel, Switzerland, voted 73 to 23 to stop Basel's 41-year water fluoridation program. Basel was the only city in Switzerland to fluoridate its water, and the only city in continental western Europe, outside of a few areas in Spain. It would seem that South Australia and, in fact, Australia are way behind the times.

Getting back to the qualifications of Dr Hardy Limeback: when the paper I quoted from earlier was to be presented in Ireland, people in Ireland were quite concerned, because at that time Dr Hardy Limeback was known to be an avid supporter of fluoridation, and he was, as I said, until he undertook independent research and came to the conclusion that this should not go ahead.

So we have the same attitude and approach right here in South Australia: no public debate. This is why the people of Mount Gambier are so angry. It is not because they are 'fluorophobics'. It is because they have researched fluoridation and they want answers to the many questions they have, and they want these faceless health officials to debate with professionals to allow them to hear both sides of the story.

I would be shocked to learn that honourable members in this place would agree with mass fluoridation if they actually knew what sodium fluoride is and where it comes from. You see, sodium fluoride is not a pharmaceutical grade, used in dental clinics as a topical application. No; it is a waste product of the aluminium and phosphate fertiliser industry and is a highly toxic and corrosive substance. It is obtained by spraying water mist over the fumes that are

spewed out of the chimney stacks of these industries in order to prevent these pollutants from entering the air. This is not done, by the way, to prevent air pollution or because these aluminium smelters choose to be good corporate citizens.

It is done as a way of disposing of this substance that is cheaper than paying to clean up the practices of these industries, and also because there is no other way to dispose of it, because of environmental concerns. This substance is known as fluorosilicic acid, and if anyone cares to take the time to look up any research as to the potency and toxicity status of this substance, it is all available on the public record. I have a newspaper article here from the ABC News, dated 23 February 2010. It states:

The Environment Protection Authority says fluoride from Alcoa's aluminium smelter at Portland is making kangaroos sick.

In fact, hundreds of kangaroos had to be put down because they were suffering from fluoride toxicity. Hundreds of kangaroos had to be shot, because they were crippled, merely from grazing on the lands within the vicinity of an aluminium smelter. They were diagnosed with skeletal fluorosis and it was attributed directly to ingesting fluorosilicic acid, the same fluorosilicic acid that we are dumping into our water supply. I will conclude my remarks after the dinner break.

[Sitting suspended from 17 : 59 to 19 : 47]

The Hon. A. BRESSINGTON: First of all, I want to thank all members for their patience and tolerance. At our last sitting, I asked a question of the Minister for Health about water fluoridation, and the Hon. Gail Gago decided, as a past healthcare professional, to partly answer the question as the minister representing the Minister for Health in this chamber. Minister Gago then kindly provided me with a copy of the most up-to-date research on fluoride. I am always more than willing to acknowledge my own limitations and lack of expertise—

The Hon. G.E. Gago interjecting:

The Hon. A. BRESSINGTON: You did when you gave it to me.

The Hon. G.E. Gago: I didn't say that it was the most up-to-date research.

The Hon. A. BRESSINGTON: Yes, you did.

The Hon. G.E. Gago: No, I did not. I did not say that. It's 2006; it's quite old.

The PRESIDENT: Order! Let's get on with the show.

The Hon. A. BRESSINGTON: Do you want to have a he said/she said in the middle of the debate or what? That's exactly what you said.

The Hon. G.E. Gago interjecting:

The PRESIDENT: Order! Let's get on with it.

The Hon. A. BRESSINGTON: Whatever; okay?

The Hon. G.E. Gago: Be careful with the truth.

The Hon. A. BRESSINGTON: You be careful with the truth. What are you accusing me of?

The PRESIDENT: Perhaps we ought to get on with it.

The Hon. A. BRESSINGTON: Do you want to have a go?

The Hon. G.E. Gago interjecting:

The PRESIDENT: Order! The minister will come to order.

The Hon. A. BRESSINGTON: So, up-to-date research or research—

The Hon. G.E. Gago interjecting:

The Hon. A. BRESSINGTON: Or whatever. As I said, I am always more than willing to acknowledge my limitations and expertise. I passed this research to contacts I have in the dental profession who are far more qualified to comment on the quality of this research but who fear retribution if they are seen to oppose fluoridation. The response to this research is as follows:

The report is very biased and had a heavy influence from Colgate and ARCPOH.

No evidence was accepted from people opposed to fluoridation. The report followed similar reports in 1991 and 1999, and no research was conducted at all. The report was compiled by a contracted company which does a meta analysis of selected papers. They rejected a controversial study by Dr Elise Bassin that linked exposure to fluoridated water in primary schools to a fivefold increase in bone cancer in teenage boys.

This Harvard study was rejected on the basis of a letter from Harvard professor Chester Douglas stating that he had further studies he would be publishing that would disprove Bassin. In 2008, Douglas retired from the university without publishing any data. He does, however, continue to work as Editor of the *Colgate Newsletter of America*. The NHMRC report was heavily influenced by a report the previous year done by Adelaide University and ARCPOH. The report is flawed because:

- 1.It ignores the delay in tooth eruption from fluoridation, which distorts the decay data to appear that fluoridation reduces decay, which it does not.

- 2.It ignores any effects of exposure to the other chemicals in the mix such as arsenic (one part per million) and three parts per million of other heavy metals.

3.It ignores the bioaccumulation of fluoride in bones and the pineal gland. Only 50 per cent of fluoride is excreted.

4.It ignores the work of Dr J. Luke (1999-2000), showing post-mortem that fluoride accumulation in the pineal gland in the brain affects regulation of serotonin and melatonin and, in turn, is responsible for the onset of early puberty in young girls.

5.The report was written with a strong bias in favour of fluoridation and did not consider an opposing hypothesis.

6.NHMRC Dental is heavily influenced by Colgate funded professors such as Professors Spencer, Morgan and Slade. We would use the term 'commercially compromised'.

7.The issue of lead leaching into the water by the fluoridation chemicals was also ignored.

On 14 September 1999, Dr Phyllis Mullenix PhD made this statement:

It was 1982 when fluoride was first brought to my attention as a substance in need of investigation. At that time, I was in the Departments of Psychiatry at Boston's Children's Hospital and Neuropathology at the Harvard Medical School. My studies focused on detection procedures for neurotoxicity, and they typically considered a variety of environmental and therapeutic agents, i.e., radiation, lead, amphetamine, phenytoin, nitrous oxide. Dr John Hein, then Director of Forsyth's Dental Infirmary for Children in Boston, was interested in neurotoxicity studies and invited me to continue this research at Forsyth and to apply to substances used in dentistry. Fluoride was prominent on his list.

Five years elapsed before our investigations of fluoride began. The delay was due to time spent on technological improvements, specifically development of a computer pattern recognition system for the objective quantification of behaviour in an animal model. In early June of 1986, the Forsyth Dental Center was noted for this achievement in the *Wall Street Journal* and the *Boston Herald*, and applications of our research grew. The new technology enabled us to study the clinically recognized neurotoxicity associated with the treatment for childhood leukaemia. Simultaneously, we started investigations of fluoride, the 'safe and effective' treatment for dental caries.

Initially, the fluoride study sparked little interest, and in fact we were quite anxious to move on to something academically more exciting. Using an animal model developed for the study of dental fluorosis, we expected rats drinking fluoride-treated water would behave the same as matching controls. They did not. The scientific literature led us to believe that rats would easily tolerate 175ppm fluoride in their drinking water. They did not. Reports in the literature indicated that fluoride would not cross the blood brain barrier. But it did. Prenatal exposure to fluoride was not supposed to permanently alter behavioral outcome. It did. Like walking into quicksand, our confidence that brain function was impervious to fluoride was sinking.

Our 1995 paper in *Neurotoxicology and Teratology* was the first laboratory study to demonstrate in vivo that central nervous system (CNS) function was vulnerable to fluoride, that the effects on behaviour depended on the age at exposure in the fluoride accumulated in brain tissues. The behavioral changes common to weanling and adult exposures were different from those after prenatal exposure. Whereas prenatal exposure dispersed many behaviors as seen in drug-induced hyperactivity, weanling and adult exposures led to

behavior-specific changes more related to cognitive deficits. Brain histology was not examined in this study, but we suggested that the effects on behavior were consistent with interrupted hippocampal development (a brain region generally linked with memory).

Establishing a threshold dose for effects on the central nervous system, in rats or humans, was not the intent of this initial investigation. Yet, one fact relevant to human exposure emerged quite clear. When rats consumed 75 to 125 parts per million and humans five to 10 parts per million fluoride in their respective drinking waters, the result was equivalent ranges of plasma fluoride levels. This range is observed with some treatments for osteoporosis, and it is exceeded 10 times over, one hour after children receive topical applications of some dental fluoride gels. Thus, humans are being exposed to levels of fluoride we know alters behavior in rats.

We concluded that the rat study flagged potential for motor dysfunction, IQ deficits and/or learning disabilities in humans. Confident as we were, the data were only one piece of the puzzle, the overall picture was still emerging. Soon thereafter we learned of two epidemiological studies (Fluoride, 1995-1996) from China showing IQ deficits in children over-exposed to fluoride via drinking water or soot from burning coal. A recent review (International Clinical Psychopharmacology, 1994) listed case reports of central nervous system effects in humans excessively exposed to fluoride, information that spans almost 60 years. A common theme appeared in the reported effects: impaired memory and concentration, lethargy, headache, depression and confusion. The same theme was echoed in once classified reports about workers from the Manhattan Project. In all, our rat data seem to fit a consistent picture.

Information linking fluoride and central nervous system dysfunction continues in 1998.

- 1) A recent study in brain research demonstrated that chronic exposure to fluoride in drinking water of rats compromised neuronal (hippocampal) and cerebrovascular integrity (blood brain barrier) and increased aluminium concentrations in [the] brain...
- 2) Masters and Coplan have reported (International Journal of Environmental Studies, in press) that silicofluorides in fluoridated drinking water increased levels of lead in children's blood, a risk factor that predicts higher crime rates, ADD and learning disabilities.
- 3) Luke at the International Society for Fluoride Research...meeting in August reported that fluoride accumulated in the human pineal gland, as much or more so than in bones and teeth, and the pineal gland's melatonin biosynthesis pathway is affected by fluoride.
- 4) Also at the International Society for Fluoride Research...I reported that the fluorinated steroid (dexamethasone) disrupts behavior in rats to a greater degree than does the non - fluorinated steroid (prednisolone). This finding matched results just completed in a study of children receiving steroids as a part of their treatment for childhood leukaemia. Dexamethasone, compared to prednisolone, further reduced IQ, specifically impairing reading comprehension, arithmetic calculation and short-term working memory.

Exposure to fluoride goes well beyond that in our drinking water, toothpastes and mouth rinses. Fluoridation of water dictates that it is in food and processed beverages. Pesticides such as cryolite also increase fluoride content of foods. The trend toward fluorinating pharmaceuticals increases fluoride exposure via medication. Fluoride, in various compounds,

plays a heavy role in occupational exposures and for people living in close proximity to industry, [such as] aluminium, steel, brick, glass, petroleum, etc. With exposure so common, we can no longer afford to ignore potential central nervous system consequences of fluoride.

Dr Phyllis Mullenix, PhD, is a pharmacologist and toxicologist by training. She graduated from the Truman State University in zoology, magna cum laude. Her post-doctoral training was as a research fellow in environmental medicine, Johns Hopkins School of Hygiene and Public Health, Baltimore. She is presently a Research Associate in Psychiatry at the Children's Hospital Medical Centre in Boston and was head of the Toxicology Department at the Forsyth Dental Centre, a world-renowned dental research institution affiliated with the Harvard Medical School. Dr Mullenix has considerable teaching experience; she has had numerous academic appointments and professional positions, as well as many awards, honours and published scientific research articles in her name.

I also have a letter from the National Federation of Federal Employees, Local 2050. This is a union of the EPA, I believe. It has written to Mr Green as part of the Citizens for Safe Drinking Water Campaign as follows:

Dear Mr Green:

I am pleased to report that our union, Local 2050, National Federation of Federal Employees, has voted to co-sponsor the California citizens' petition to prohibit fluoridation of which your organisation is the sponsor. Our union represents, and is comprised of, the scientists, lawyers, engineers and other professionals at the headquarters of the US Environmental Protection Agency here in Washington, DC.

A vote of the membership was taken at a meeting during which Professor Paul Connett and Dr Robert Carton made presentations, respectively, on the recent toxicological and epidemiological evidence developed on fluoride and past actions (and their bases) of Local 2050 with respect to fluoride in drinking water. The membership vote was unanimous in favour of co-sponsorship.

It is our hope that our co-sponsorship will have a beneficial effect on the health and welfare of all Californians by helping to keep their drinking water free of a chemical substance for which there is substantial evidence of adverse health effects and, contrary to public perception, virtually no evidence of significant benefits.

These judgments are based, in part, on animal studies of the toxicity of fluoride coupled with human epidemiology studies which corroborate them, and the studies of rates of decayed, missing and filled teeth in the United States (fluoridated and non-fluoridated communities) versus non-fluoridated European countries.

Our members' review of the body of evidence over the last 11 years, including animal and human epidemiology studies, indicates a causal link between fluoride/fluoridation and cancer, genetic damage, neurological impairment and bone pathology. Of particular concern are recent epidemiology studies linking fluoride exposure to lower IQ in children.

As professionals who are charged with assessing the safety of drinking water, we conclude that the health and welfare of the public is not served by the addition of this substance to the public water supply.

Yours sincerely,

William J. Hirzy, PhD, Senior Vice-President

I also have here a Summary Statement on Water Fluoridation, dated 9 September 1997, by Dr Albert Burgstahler, Professor of Chemistry, at the University of Kansas. It states:

In 1931 the highly toxic nature of inorganic fluorides came into special prominence with the discovery that relatively small concentrations of fluoride ion in drinking water are responsible for the unsightly endemic dental defect known as mottled enamel. Previously, the devastating effect of volcanic and industrial fluoride emissions on livestock and vegetation had been recognised and were of increasing concern. Moreover, the acute toxicity of fluoride in decigram amounts to humans was well-documented, but the chronic, cumulative toxicity of milligram levels of intake still awaited investigation. Mottled enamel or dental fluorosis, which results from fluoride interference with enamel-forming cells prior to tooth eruption, is one of the first visible signs of chronic fluoride poisoning.

Surveys of selected communities by the US Public Health Service during the 1930s appeared to indicate less tooth decay (dental caries) among children in areas where dental fluorosis was found. It was recognised at the time that such lower caries rates might be due, at least in part, to other components in the drinking water beside fluoride, and, in fact, later work showed that this was indeed the case. Nevertheless, the proposal was made to increase the fluoride content of ordinary low fluoride water supplies to a level of about one part of fluoride ion per million parts of water as an effective way to reduce dental caries by 40 to 70 per cent without causing significant dental fluorosis or other toxic effects. Subsequent findings, however, have shown that this goal has not been achieved. Dental fluorosis in fluoridated communities is more extensive and more severe than predicted, and the anti-caries effect of fluoridation has been found to be negligible or, at best, only marginal.

Originally a 10 per cent incidence of barely visible, unobjectionable dental fluorosis was expected for artificial fluoridation. Current surveys, however, reveal that, owing to unanticipated increases in fluoride intake, the incidence is at least 20 to 30 per cent, with many cases that are clearly disfiguring and objectionable. Fluorosed teeth have an abnormal chalky appearance, often with unsightly, irregular, bilateral modelling, which in adulthood can acquire permanent yellow or even brown stains. Although reputedly more resistant to caries, such teeth often develop cavities and, when they do, they are usually more difficult to repair because they can be excessively brittle and fail to hold fillings tightly.

Dental fluorosis, however, is only one of the many toxic effects of fluoride in drinking water. Competent laboratory studies also reveal significant damage by one part per million fluoridated water, to mammalian enzymes, chromosomes, cell growth and mineral metabolism. In human populations cancer death rates among persons aged 45 and older, and the relative number of Down Syndrome babies born to younger mothers, have been found to be higher in fluoridated than in non-fluoridated areas. Likewise the incidence of costly and often fatal hip fractures of women aged 65 years and older has been shown to be significantly greater in fluoridated than in non-fluoridated communities. Moreover, in agreement with laboratory findings in male rats, osteosarcoma—fatal bone cancer—has been found to be as much as six times more frequent amongst males under age 20 in fluoridated communities than in non-fluoridated ones.

On a more general level, easily demonstrated, reversible, non-dental toxic effects from one part per million fluoride in drinking water have also been identified and verified. The symptoms are the same as those first recognised in aluminium foundry workers by the distinguished Danish pioneer, fluoride researcher Kaj Roholm. Because the symptoms are so common, they are easily mistaken as being due to other causes. They include: headache, excessive thirst, muscular weakness, extreme tiredness, involuntary muscle spasms, gastric distress, colitis, low back and joint pain and stiffness, urinary tract irritation, skin eruptions, mouth sores and visual disturbances involving the retina.

Persons in poor health, and those who have (or a tendency toward) allergy, asthma, kidney disease, diabetes, gastric ulcer, low thyroid function and deficient nutrition are especially susceptible to toxic effects of fluoride in drinking water. In addition, low intake of calcium, magnesium and vitamin C, as well as the presence of fluoride in beverages (especially tea), food, air, drugs, tobacco, toothpaste and mouth rinses can also precipitate or contribute to such intoxication.

When the illness is caused by fluoride in drinking water, and is not too far advanced, the symptoms promptly disappear or subside without medication simply by substitution of distilled or other low fluoride water for all drinking and cooking, and avoidance of high fluoride foods, such as mechanically deboned meat, skin of chicken, bony ocean fish, tea and gelatine manufactured with fluoridated water. Unfortunately, because of vigorous denial by health authorities, inflexibly committed to the promotion of fluoridation, such illness is not usually recognised either by the general public or by the medical profession as being possibly fluoride related. Yet, even the Physicians' Desk Reference (45th edition, 1991, page 2173) warns of such toxic reactions to prescription supplements for babies and children. In hypersensitive individuals fluorides occasionally cause skin eruptions, such as atopic dermatitis, eczema or urticaria. Gastric distress, headache and weakness have also been reported. These hypersensitivity reactions usually disappear promptly after discontinuation of fluoride.

With respect to the dental benefit issue, in contrast to favourable findings from small-scale studies of preselected, often poorly matched groups, large-scale and whole population surveys of unselected groups have shown that there is virtually no difference in tooth decay rates of children in fluoridated and non-fluoridated areas. Such results have been observed not only in the United States but also in Australia, Canada and New Zealand. Equally important, and probably largely because of improved dental nutrition and hygiene, caries rates have been declining in most developed countries by about the same amount in nonfluoridated areas as in fluoridated areas. Furthermore, dental costs are not significantly lower in fluoridated communities, nor are there fewer dentists practising or needed in fluoridated communities than in nonfluoridated ones.

In fact healthy, decay-resistant teeth are consistently produced without fluoride through adequate dental nutrition and proper oral hygiene. Generous intake of known tooth-building minerals and nutrients during the critical early years of tooth formation and growth, substitution of fresh foods and whole-grain flour products for refined ones, vigorous restriction of refined carbohydrate and sugar consumption, and thorough daily cleaning teeth, especially before retiring, have repeatedly been shown to provide safe and effective protection against dental decay.

It should also be noted that, despite claims to the contrary, the mechanical safety of fluoridation continues to pose serious problems. Officially acknowledged overfeed malfunctions responsible for episodes of mass poisonings and even fatalities have occurred in Alaska, Maryland, Michigan, Connecticut and elsewhere. Clearly, fluoridation procedures are not always fail safe.

In many parts of the world, especially on the European continent, fluoridation of drinking water has been rejected or abandoned, largely for reasons such as those outlined here. Although fluoridation is still being promoted by health authorities in major English-speaking countries, there is increasing concern amongst the international scientific community, as well as the general public, over steadily mounting adverse evidence against the supposed safety and effectiveness of fluoridation.

While this motion is not on the efficacy or ethics involved in the fluoridation of water supplies but on whether individuals have the right to choose whether or not they will ingest a potentially hazardous substance, it would be remiss of me not to include the results of research from many highly respected health professionals who have, in fact, undertaken research that is sadly missing in the justification for fluoridation. I put it to members of this chamber that those who have been mentioned in this speech today hold far more qualifications than anyone currently involved in this issue in South Australia, and that includes the minister, the ministerial advisers and, in fact, anyone in this or the other chamber.

With the hundreds of research papers published—research papers on the harms of fluoridation—one can expect that well-informed members of the public would have grave concerns if they were told that their water supply was going to have sodium fluoride added to it, and where public consultation on this issue was so atrocious that it has been described by a number of professionals as deceitful.

One has to wonder why anyone who is a mere politician would endorse such a public health policy without a total revision of all the scientific and medical research that has been done to show that there is a potential for serious health ramifications. We are not scientists and we are not researchers; it would be unforgivable—indeed, criminally negligent—for us to pretend that we are deliberating on such an important decision thoroughly if all the research has not been properly reviewed, tested and challenged. If that were done I am certain that, as a responsible health minister, there would be a call for properly controlled scientific studies to be immediately undertaken.

This brings me back to Dr Doug Everingham, former health minister in the Whitlam government. As I stated earlier, he wrote to the Hon. John Hill and the then acting health minister, the Hon. Patrick Conlon, on 16 August 2010, and he had this to say:

As a family doctor some 55 years ago I accepted the assurance of the (largely anglophone countries') health professional authorities that water fluoridation is safe. Some patients brought to my attention through works by Wald bot t , former allergy section head of the United States AMA, documenting hypersensitivity to fluoride , Steyn documenting increased incidence of endemic hyperthyroidism with regional fluoride concentration , and Professor Sir Arthur Amies, dean of dentistry in Melbourne, documenting with Dr P.R.N. Sutton epidemiological statistics exposing the failure of fluoridation promoters to correct survey faults.

US federal authorities were less than cautious in assessing the commercial value of finding that fluoride waste products from aluminium and phosphate industries became a valued commodity rather than a source of agricultural and other legal compensation claims. Improvements in dental caries control were often lacking in double blind surveys, or improperly attributed to water fluoridation while other measures (regional affluence, improving diet, dental hygiene, and topical fluoride in dental practices and toothpaste) were more significant, and swallowed fluoride ineffective.

There is more objective investigation of incidents of bone and joint problems, intellectual and other cumulative ill effects of fluoridation in mainland Europe than in fluoridating countries. There is a reluctance to include critical research and researchers in official investigations; for example in the delay in Harvard's releasing Bassin's findings of young males' osteosarcoma incidence.

However, official recognition of hazards is improving. Fluoridated water is not recommended for reconstituting infant milk products or for renal dialysis. There is a growing argument for lowering the tolerated level of natural fluoride in water supplies, often set at around four times the ' optimum ' recommended level. There is still no official recommended minimum daily total fluoride intake required to prevent fluorosis — perfect sets of teeth are found among fluoride -' deficient ' communities , and no ' optim ally' fluoridated community is free of massive decay cases requiring general anaesthetic dental clearances.

In my view there is a case for ceasing fluoridation of water supplies pending surveys of fluoride intake in particular demographic groups, statistically sound review of unduly discredited equivocal findings of fluoridation related incidence of adverse conditions including dental fluorosis.

I am hopeful that it will not be too difficult for our minister to pick up a telephone and call a former minister of health of the Labor Party and avail him of the information that has led him to change his mind on fluoridation. In my mind, this would be the very least that could be done.

Dental fluorosis is not just discolouring of the teeth and it is not merely a cosmetic problem. When teeth are pitted, discoloured and rotting from the inside out, it is a sign fluoride toxicity. This is a fact that the entire dental fraternity agrees with.

Another fact is that if the teeth are weak, then the skeletal structure will be weakened, and we will not know the full extent of this for some years, when these children who have grown up on fluoridated water will more than likely be crippled with arthritis, weak bones and numerous fractures. In China, where fluoridation is now banned because of the effects of overexposure, the World Health Organization has estimated that 2.7 million people have the crippling form of skeletal fluorosis.

Another prominent researcher, Dr A.K. Susheela, who also appeared on the *Today Tonight* show some two weeks ago urging—

The Hon. R.P. Wortley: That is her qualification, appearing on Channel 7?

The Hon. A. BRESSINGTON: No: her qualifications make her prominent, and I will read them out for you now, one by one, so that you get the picture.

The PRESIDENT: Order!

The Hon. A. BRESSINGTON: You want to be clear on your facts before you interrupt. Dr Susheela states:

There are 20 nations in the world with health problems due to excess fluoride ingestion through water and food. India, Africa, China, certain parts of Thailand, Japan, New Zealand, Australia, Israel, Pakistan, Syria, Turkey are severely affected. However, the problem exists in U . K . , U . S . A . , Canada to a lesser extent possibly due to better nutrition, calcium and Vitamin C in diet which can nullify the toxic manifestations to some extent . But ' Water Fluoridation ' is a guaranteed danger to health.

The major problem is that , very often , skeletal fluorosis and non-skeletal fluorosis are misdiagnosed and treated wrongly as clinicians do not fully understand the manifestations due to fluoride poisoning/ toxicity. These are not described adequately in Medical/ Dental text books.

Dental fluorosis , is quite evident from the discoloration of the teeth from white, yellow, brown to black spots or streaks horizontally aligned in the enamel surface , away from the gums.

Even dentists, quite a large number, do not fully understand fluoride action on teeth. We have problems in India, as dentists promote fluoride among patients who have dental fluorosis and the patients end up with severe, non-skeletal manifestations. Intense scientific debates have helped the government to amend our Drugs and Cosmetic Act of 1945 during June 1992 to bring in stipulations in the manufacture of fluoridated toothpaste. We would like to get the fluoridated toothpaste out of our country, but due to vested interests among those concerned it is not an easy task.

I could, but I will not, read out—and repeat myself—what Dr Susheela has found the effects of fluoride to be, but because of the Hon. Russell Wortley's ignorance, I will actually read out her qualifications.

Dr A.K. Susheela has a PhD, and has spent more than 20 years doing scientific research in the field of fluoride toxicity and fluorosis. She is a full professor of anatomy (histocytochemistry) and chief of the Fluoride and Fluorosis Research Laboratories at the All India Institute of Medical Sciences, New Delhi. She has held faculty positions at the same institute since 1969. She has a PhD from India with postdoctoral training under Lord Walton, neurologist, of the UK and Dr D. Milhorut of the Muscle Institute, New York, United States of America.

She was a visiting professor at the Allan Hancock Fraternity at the University of Southern California from 1974 to 1976. She is a fellow of the Indian Academy of Sciences and the National Academy of Medical Sciences. She has won the prestigious Ran Baxy Research Foundation Award for outstanding research in medical sciences. She has been involved in teaching medical students of all levels and carrying out research and guiding research in the field of muscle disease and fluorosis for more than 20 years.

Her field of interest for the last 20 years has been fluoride and health hazards. Numerous funding organisations have called upon her during that time to evaluate projects for funding

in the field of biomedical research. She has been a member of several national committees since the early 1970s, where issues related to fluoride are debated and discussed, and convened an international conference on fluoride and fluorosis research in India in 1983. She edited a book, *Fluoride Toxicity*, during 1985, and has been invited to speak on her experience in the field of fluoride research at various scientific meetings held in Japan, Denmark, Switzerland, Kenya, United States of America and Hungary. She has guided six PhD theses on the subject of fluoride and health hazards, and has more than 80 scientific publications in leading western and Indian journals. So she is certainly no slouch on this issue.

Some will respond to what has been delivered here today with the answer that as long as fluoride is delivered in low levels it is quite safe; but we do not know what a safe level of fluoride is. It is present in many foods as a preservative; it is in many medications; it is in our water supply; and it is part of the pesticides used to spray our crops, so we have no way of knowing just how much we are ingesting. We do know now that sodium fluoride is accumulative and that only 50 per cent is excreted daily through the kidneys and the rest is absorbed into our bones, soft muscle tissue and our brain.

We will also be told that fluoride occurs naturally in our water. What we are not told is that it is calcium fluoride that is found in water, not sodium fluoride, which is a very different chemical and is not naturally occurring. It is a toxic by-product of the aluminium and pesticide industries. Dr Robert Mick was one of the original scientists who promoted fluoridation, until he did his own animal research on sodium fluoride in the late 1940s; he abruptly changed his mind after authorities ordered him to cover up his test results. He refused and proceeded to do some more research on those very authorities.

Dr Mick's studies prompted him to confidently present this challenge: \$20,000 to the first individual who could provide one copy of any controlled experiment with any of the United States public health service recommended fluorides in water at the United States public health service recommended parts per million which shows that poisonous fluorides are safe and will cause no future body harm. Dr Mick's \$20,000 offer has been valid since the 1950s but, as per a 1991 radio interview, Dr Mick said that nobody had yet presented even one to him in the hope of collecting the reward. His address is 916 Stone Road, Laurel Springs, New Jersey. He is still prepared to put his money where his mouth is, with no takers.

Dr Feingold headed an organisation that cares for hyperactive children, which has found, incidentally, that fluoride causes a severe adverse reaction upon the nervous system of hyperactive children. Coincidentally, so-called attention deficit order (or ADD) is a common misdiagnosis for hyperactive or overly enthusiastic children for which Ritalin is commonly prescribed. Thus, when a hyperactive child has an adverse reaction to fluoride, they are commonly put on destructive Ritalin or fluoridated Prozac as a cure. Dr Feingold says:

The debate should not be the merits of fluoridation of the water supply, which is a public health problem, but rather the ethical aspects of universal fluoridation, which creates an untenable situation for those individuals who are intolerant to fluorides. Do we have the moral right to create a situation from which the intolerant individual has no escape? The answer thus becomes very simple. Each individual should be granted the option to choose fluoride prophylaxis depending up on his need and tolerance. You may have my permission to state my position and quote me as against universal fluoridation of water supply.

Dr C.G. Dobbs, Professor of Microbiology, University of North Wales, Associate at the Royal College of Science, formerly of Kings College, University of London, has this to say when talking about water fluoridation:

It is of doubtful legality ; i t offends deep convictions concerning doctoring without consent; i t is against the medical tradition of care for the individual; against the function of a public water supply; against sane economics, against the considered opinion of eminent nutritionists, biochemists, physiologists, pharmacologists, allergists, toxicologists ; above all, it is against natural caution and common sense.

I am hoping that, with the information I have presented here today, which is minute compared with what I have not presented, we can say that the people of Mount Gambier and, in fact, every South Australian, has the right to question the safety and efficacy of water fluoridation.

I can also say that the people of Mount Gambier deserve an explanation of the science used to advocate the fluoridation and that they should expect that the minister and his senior adviser, Dr Cunliffe, would be more than happy to promote their reasons for fluoridation and be challenged by professionals well versed in this area for those very reasons. On that note, I commend the motion to the house.

Debate adjourned on motion of Hon. I.K. Hunter.