Government of **Western Australia**
Department of **Health**

Our Ref:
Enquiries: Environmental Health Directorate
ehinfo@health.wa.gov.au

Ms J M Freeman MLA
Chair
Education and Health Standing Committee

By email: laehsc@parliament.wa.gov.au

Dear Ms Freeman

QUESTIONS RELATED TO ORAL HEALTH HEARING

We wish to thank you and your Committee for the opportunity to appear before you on May 9th this year and provide information regarding your Committee's interest in oral health matters. We deeply appreciate your concerns in this regard.

The attached information deals with the following matters:

- Further information in relation to undertakings given to you on May 9th;
- Ten questions the Committee was unable to raise with us due to time constraints;
- Matters relating to the evidence from Fluoride Free WA, as invited by yourself.

Again, we thank you for the opportunity to provide the information in the attached statement, and hope that it is of benefit to your Committee's deliberations. If you would like further information, please do not hesitate to contact the Environmental Health Directorate of the Department of Health, on (08) 9388 4999, or at ehinfo@health.wa.gov.au

Yours sincerely,

Dr Richard Lugg
CHAIR
FLUORIDATION OF PUBLIC WATER SUPPLIES ADVISORY COMMITTEE

5 June 2018

Att.
Enc.

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**STATEMENT BY Dr RICHARD LUGG, CHAIR,
FLUORIDATION OF PUBLIC WATER SUPPLIES ADVISORY COMMITTEE**

FURTHER INFORMATION AS UNDERTAKEN

a. The Fluoridation of Public Water Supplies Advisory Committee

The names of the current members of the Fluoridation of Public Water Supplies Advisory Committee have been provided to your Committee separately on a confidential basis.

It should be noted that approval to withhold the names of committee members is not unique to the Fluoridation of Public Water Supplies Advisory Committee. As reported in the Department of Health's Annual Report 2016-2017[1], two other WA Committees operating in the Health portfolio also have approval from the Minister for Health to withhold the names of committee members (the Stimulant Assessment Panel and the Cannabis Based Product Assessment Panel).

b. Water fluoridation survey, Bunbury and Dalyellup, 2018

A copy of the finalised version of the 2018 Bunbury and Dalyellup Water Fluoridation Survey report is enclosed, and may be freely distributed and quoted from as needed. This report is scheduled to be loaded on the Department's fluoridation web site later in June 2018.[2]

c. Origin of the questionnaire used in the water fluoridation surveys

There is a good account of this matter in section 2.1 of the 2018 Bunbury and Dalyellup fluoridation survey report referred to above. Briefly, it was derived back in 2010 from both New South Wales and Queensland sources, approved by the Department of Health's Human Research Ethics Committee, and piloted by the Edith Cowan University Survey Research Centre, with particular attention to correct question sequencing. This Centre is very experienced in questionnaire management and data collection and analysis.

Nonetheless, the Department of Health's Epidemiology Branch is checking the structure and wording of the questionnaire. I will keep your Committee apprised of the outcome of this review.

[1] Details at: https://ww2.health.wa.gov.au/Our-performance/Annual-Report
[2] Details will be at: http://ww2.health.wa.gov.au/Articles/F_I/Fluoridation

YOUR COMMITTEE'S TEN QUESTIONS

Style notes:

1. In this statement there are frequent references to the Education and Health Standing Committee of the Legislative Assembly and the Fluoridation of Public Water Supplies Advisory Committee. To avoid confusion, the Committees are referred to as "your Committee" and "the Advisory Committee" respectively.

2. The term Aboriginal is used in the Western Australian context in recognition of Aboriginal people being the original inhabitants of Western Australia. The term Aboriginal and Torres Strait Islander may be used in the national context, and the term Indigenous may be used in an international context.

1. Indigenous people have higher rates of dental caries than the rest of the population.

i. What do you attribute this to?

Culture, history, demography, social position, economic characteristics, bio-medical factors, individual make-up and the available health interventions within a person's community all form part of the complex causal web which determines an individual's oral health status (Sanders, 2007)[3]. By far the most powerful of these determinants, is an individual's social position (Wilkinson & Marmot, 2003). There is a social gradient in health, whereby the lower a person's social position, the worse his or her health (Marmot, 2010). This causal relationship is known as the social determinants of health (Wilkinson & Marmot, 2003).

The health (including oral health) inequalities many Aboriginal people experience today are a direct consequence of past policies and legislation which sought to formally enforce material and social inequality between Aboriginal and non-Aboriginal people (Heabich, 1992).

Definitive figures on what proportion of the health inequality is attributable to social determinants and what proportion to lack of access to quality health services are yet to be produced. However, there have been a number of studies that demonstrate that social determinants account for one half of the gap in health status between Aboriginal and Torres Strait Islander and non-Aboriginal and Torres Strait Islanders populations (Booth et al, 2005).The other half can be attributed to risk factors such as tobacco, alcohol and poor diet, all of which are risk factors for oral disease. This demonstrates the significant potential of improved access to quality health care to address the health gap experienced by Aboriginal and Torres Strait Islander people (Vos et al. 2007).

[3] All references in Questions 1 -6 appear on the last page of this document.

ii. How is it being tackled?

In recognition that Aboriginal populations experience higher rates of dental caries, it is necessary to address the issue by adopting a multi-faceted, multi-sectorial approach. Currently, a number of strategies (detailed below) are in place across WA and are grouped by the following headings:

- Prevention and health promotion
- Improved access to high quality, culturally safe oral health care
- Building the Aboriginal oral health workforce

Prevention and health promotion

Oral health promotion encompasses actions at the population level as well as actions at the individual level to build people's awareness and capacity to protect and improve their own oral health. Oral health promotion requires a multi-faceted approach as one single measure alone cannot address the complex issue of poor oral health. Current oral health promotion strategies include:

Community Water Fluoridation

At a broad population level, community water fluoridation is the single most cost effective and safe oral health strategy that improves oral health across the population (regardless of socioeconomics). The National Health and Medical Research Council (NHMRC) found that water fluoridation reduces tooth decay by 26-44% in children and adolescents, and by 27% in adults. Recent Australian research states that access to fluoridated water from an early age is associated with less tooth decay in adults (NHMRC, 2017).

Approximately 92% of WA's population receives the benefits of community water fluoridation. Given the oral health disparities and inequalities in access to dental care, it is imperative that work continues to further extend coverage.

WA Health Fluoride Varnish Program

Aboriginal children have higher levels of dental decay in both their deciduous and permanent teeth compared to their non-Aboriginal counterparts. Rates increase further when factoring in geographic remoteness.

Australian studies have demonstrated a 25-45% decrease in the decay rate when fluoride varnish is applied six-monthly to the teeth of children aged 18 months to 5 years (Jamieson et al 2007, Shearer & Jamieson 2012). However, the application of fluoride varnish is (normally) only able to be conducted by dental practitioners. As there is a maldistribution of the dental workforce in WA, the Department of Health developed a program which reorientates health services and upskills non-oral health workers to apply fluoride varnish.

The Fluoride Varnish Program (FVP) enables the utilisation of the non-oral health workforce to reduce the levels of dental decay in the deciduous and permanent teeth of Aboriginal children living in regional and remote areas of WA. The FVP is open to all Aboriginal Health Practitioners, Aboriginal Health Workers, Registered Nurses, Clinical Nurses (in the areas of school and child health) and Clinical Nurse Specialists working in the Kimberley, Pilbara, Midwest, South West and Goldfields.

These non-oral health workers are trained in oral health promotion and the application of fluoride varnish and must demonstrate they are competent prior to completion of the course.

The FVP was implemented in most regional areas of WA in 2015. The South West region is a recent addition to the program commencing in late 2017. The FVP is delivered in partnership with Aboriginal Community Controlled Health Services allowing for effective coordination and service delivery to Aboriginal communities.

Since its inception, the FVP has delivered 22 training sessions across WA to 123 health professionals with 81 gaining competency.

Dental Health Services Fissure Sealant Program

In 2013, Dental Health Services'[4] School Dental Service (SDS) adopted a population-based risk assessment methodology to determine which patients may benefit from the fissure sealing of their permanent molars.

This risk assessment approach indicates a capacity for gains in community caries prevention by considering the wider social context of the individual as a risk factor in the occurrence of dental caries.

SDS clinics used the Index of Community Socio-Educational Advantage (ICSEA), as listed in the My School website as a guide to determine which schools would be included in the program. All children from schools with an ICSEA score of below 1000 are offered fissure sealing of their permanent molars. Those children from schools not meeting the ICSEA criterion could still be offered fissure sealing based on an individual risk assessment.

Since the commencement of the program, there has been a reduction in the caries experience of 12 year olds by 27%. As the program has not been designed via research protocols, a cause and effect value on the fissure sealant program and the drop in disease rate cannot be assigned, however, there appears to be a correlation as no other changes in service delivery or population health measures have been put into effect.

[4] Dental Health Services is the main provider of public dental services in WA. Dental Health Services provide free general dental care to children aged 5 – 16 years and subsidised dental care to eligible adults (Health Care and Pensioner Concession cardholders).

Improved access to high quality, culturally safe oral health care

As part of fostering a respectful workplace, Department of Health staff are required to complete the "WA Health Aboriginal Cultural eLearning – a healthier future" which is an online module that raises awareness of Aboriginal culture.

This training assists the Department of Health to create a more welcoming and culturally appropriate environment for Aboriginal patients. In addition to mainstream services, outreach programs are provided to treat Aboriginal patients in their preferred environments.

Public dentists employed by Dental Health Services (DHS) are located across the State in mainstream services as well as in the majority of Aboriginal Community Controlled Health Services (ACCHS). DHS dental teams consisting of a dentist and dental clinic assistant visit ACCHS and provide care in a culturally safe environment at the following locations:

- Kununurra - Ord Valley Aboriginal Health Service
- Halls Creek - Yura Yungi Medical Services
- Derby - Derby Aboriginal Health Service
- Broome - Broome Regional Aboriginal Health Service
- Roebourne - Mawarnkarra Health Service
- Geraldton - Geraldton Regional Aboriginal Health Service
- South Hedland - Wirraka Maya Health Service Aboriginal Corporation
- Carnarvon - Carnarvon Medical Service Aboriginal Corporation
- Kalgoorlie - Bega Garnbirringu Health Service
- Wiluna - Ngangganawili Aboriginal Health Service via contract with Royal Flying Doctor Service
- Warburton - Ngaanyatjarra Health Service via contract with Royal Flying Doctor Service

Aboriginal patients are treated free of charge when seen in outreach settings or ACCHS. Between 2010-11 and 2017-18 there has been a 59% increase in the number of Aboriginal people accessing public dental care.

In recent years, the State has received time limited additional funding from the Commonwealth via National Partnership Agreements. This has enabled innovative partnerships between the Department of Health and non-profit health service providers to develop. For example with the Kimberley Dental Team to increase access to free dental care for Aboriginal people in the Kimberley region and with Moorditj Koort which will see free dental care provided to Aboriginal people living with chronic disease in the Rockingham region.

Building the Aboriginal oral health workforce

The Fluoride Varnish Program

The above mentioned Fluoride Varnish Program provides training for Aboriginal Health Workers and Aboriginal Health Practitioners in basic oral health units and the application of fluoride varnish.

Section 51 Pilot Program

In March 2017, the Department of Health introduced the Section 51[5] Pilot Program which aims to increase the Aboriginal workforce through the application of Section 51 of the *Equal Opportunity Act* 1984. Dental Health Services participated in this pilot program and as result recruited to and appointed two Aboriginal people to one position. This pilot program has now been implemented across the Department of Health.

Dental Clinic Assistant Trainee Program

Since 2017, the Aboriginal Dental Clinic Assistant Trainee Program has helped Dental Health Services (DHS) increase the talent pool within public oral health. The program has given trainee Aboriginal dental assistants the opportunity to work closely with dental professionals to deliver oral healthcare and education to their fellow community members.

The Program offers sponsorship to suitably identified Aboriginal people to complete a nationally recognised Certificate IV in Dental Assisting through the North Metropolitan TAFE. The sponsorship covers 100% of the course fees and includes a guarantee of permanent employment with DHS as a Dental Clinic Assistant on the successful completion of the course.

In 2017, DHS sponsored seven applicants, with six applicants graduating and gaining employment with DHS. In 2018, DHS has sponsored an additional three applicants whilst continuing to support the applicant from 2017 who has unable to graduate in 2017 due to parental leave.

iii. Are Aboriginal communities involved in planning and delivery?

Aboriginal Australians are often not consulted in decisions about their health, and slow progress in improving poor oral health is cause for concern. Researchers at the University of WA have worked to change this by involving Aboriginal stakeholders in planning and implementing projects to improve oral health in innovative ways.

[5] Section 51 of the *Equal Opportunity Act* 1984 is a measure intended to achieve equality. It provides agencies with the ability to introduce recruitment measures specifically targeted towards racial groups that have been historically disadvantaged and under-represented in the workforce. Section 51 operates as an exception to what would otherwise be unlawful discrimination under the Equal Opportunity Act.

This includes supporting two Aboriginal health practitioners to attend an international dental research conference in San Francisco and engage in a series of round-table discussions with international leaders in dental public health and Indigenous oral health on improving oral health outcomes for Aboriginal adults and children. While discussions touched the surface of the issue, participants responded positively to the opportunity to share knowledge and experience which sowed a seed that could be developed further.

The Aboriginal health practitioners found the experience positive, expanding their understanding of the importance of oral health and positioning Aboriginal oral health in a broader global perspective.

A recent paper from the overall research project has won the 2018 International Association of Dental Research Giddon Award for Distinguished Research in the Behavioural Sciences (Durey et al 2017). The paper features 51 interviews with Aboriginal parents.

This work was instigated by substantial consultation with colleagues and community and particularly by a conversation with an Aboriginal elder. This paper represents an in-depth effort to understand the perceptions of Aboriginal Australians regarding oral health from the perspective of Aboriginal parents.

The overall research project has led to the:

- Innovative partnership between Moorditj Koort and Department of Health (which will see free dental care provided for Aboriginal people living with chronic disease in the Rockingham region) and
- The development of a culturally appropriate children's book targeting 0-4 year olds oral health.

With reference to the Fluoride Varnish Program, prior to its implementation, WA Country Health Services (WACHS) consulted with Aboriginal Health Planning Forums and Aboriginal Community Controlled Health Services in the four northern regions and the Aboriginal Health Council of WA. WACHS has ongoing regular meetings with these community organisations and actively promotes the Fluoride Varnish Program including the offer of training for eligible staff.

With reference to public dental services, Dental Health Services (DHS) has Memoranda of Understanding in place with each of the Aboriginal Community Controlled Health Services listed in *Question 1 (ii) Improved access to high quality oral health care.* Engagement occurs at management level between the ACCHS' and senior DHS staff and at patient level between DHS dental practitioners and patients attending the ACCHS dental clinics.

iv. How well represented are Aboriginal people in the oral health workforce?

The oral health workforce comprises registered dental practitioners (dental hygienists, dental prosthetists, dental specialists, dental therapists, dentists and oral health therapists) and un-registered staff (dental assisting). Currently, 85% of the oral health workforce is in the private sector.

Within the WA public and private registered dental practitioner workforce, 0.21% identifies as Aboriginal; compared to the national figure of 0.3%. Within the WA public dental system, of the registered workforce 0.34% identify as Aboriginal.

With regard to the non-registered workforce, there is no national data available, however for the public dental sector in WA, 1.9% identify as Aboriginal.

Registered dental practitioners who identify as Aboriginal 2018

	WA	National
Public and Private	0.21%	0.3%
Public	0.34%	NA

For oral health students, in 2018, 7.15% of students undertaking a degree through the UWA Dental School identified as Aboriginal. Additionally, 2% of students undertaking a Certificate IV in Dental Assisting through North Metropolitan TAFE identified as being Aboriginal (this figure is in addition to the three students participating in the above mentioned Aboriginal Dental Clinic Assistant Trainee Program through Dental Health Services – Question 1(ii).

2. According to the *State Oral Health Plan 2016-2020* (p29), eligible children have not necessarily been accessing targeted Commonwealth and State funding. Has this changed, and if not what is being done to ensure provision of services to children in priority populations?

In regards to Federal funding, the Commonwealth fund the Child Dental Benefit Schedule (CDBS) which provides a capped benefit entitlement for primary dental care for children aged 2–17 years who meet a means test (Family Tax Benefit A). The total benefit is capped at $1,000 per child over a two year period and can be used in either the public sector (time-limited) or private system (in perpetuity).

The CDBS remains underutilised both at a state and national level. To ensure there is improved targeting of the CDBS, the Department of Health will work with the Commonwealth when a statutory review of the Dental Benefits Act 2008 occurs in 2018/19.

Whilst CDBS utilisation remains low, this is not the case for the State funded dental care. Dental Health Services' School Dental Service provides free universal general dental care for children aged 5-16 years. The enrolment rate for five year olds in the School Dental Service is 80% with priority populations well represented in the program.

3. Does the oral health workforce have the necessary competencies to address the particular needs of the priority populations, or is more training and professional development needed?

In the context of upskilling and professional development, more is always useful and would be a necessary and expected requirement of registration with the Dental Board of Australia.

The *State Oral Health Plan* highlights four priority populations which have higher levels of oral disease and therefore require targeted strategies. These priority populations are:

- Western Australians who are socially disadvantaged or on low incomes
- Aboriginal people in Western Australia
- People living in regional and remote areas of Western Australians
- Western Australians with additional and/or specialised health care needs

Currently dental training includes clinical placements in the public dental system across the State. The public dental system aims to provide quality dental services to those Western Australians on low incomes, those living in regional and remote areas as well as Aboriginal people. Therefore, these clinical placements allow students to develop their competencies to address the needs of the *State Oral Health Plan's* priority populations, with the exception of the fourth priority population.

WA's dental training is currently not well placed to meet the needs of those Western Australians with additional and/or specialised health care needs. However, this is quickly changing with WA's first Special Needs Dental Specialist commencing at Fiona Stanley Hospital in early 2018.

Additionally, the University of Western Australia's (UWA) Dental School are in the process of recruiting a full-time Special Needs Dental Specialist for commencement from January 2019. Following appointment, UWA will commence planning to initiate a Doctor of Clinical Dentistry (Special Needs Dentistry) program, which will then generate competent Special Needs Dental Specialists.

4. The *State Oral Health Plan 2016-2020* acknowledges the difficulty of recruiting dental practitioners to regional and remote areas, and keeping them there. It suggests several strategies. Have any been implemented?

Recruitment of dental practitioners to regional and remote areas can be difficult. In recognition of this, the Public Sector Dental Workforce Scheme (PSDWS) was established in 2005 by the Commonwealth to enable overseas trained dental practitioners who met specific eligibility criteria to gain registration in Australia. In return participants are then employed in the public dental sector and given posts in regional and remote locations.

Prior to 2012, the PSDWS was well utilised by Dental Health Services (DHS). However in recent years, the need to recruit via this scheme has not been necessary due to the increased availability of local dental practitioners. Additionally, the use of private practitioners in some regional and remote has ensured that patients can access oral health care in areas where government dental clinics are few.

Although vacancy rates in the public dental sector have recently been low, it remains imperative to ensure further strategies are explored and the current low vacancy rates maintained. With this in mind DHS have implemented a mentoring program to provide support for dental practitioners in rural and remote areas. In addition, fly-in-fly-out dental teams have been implemented where permanent recruitment to remote locations has been difficult.

5. The *State Oral Health Plan 2016-2020* mentions needing a State Oral Health Promotion Plan (p22) to ensure a coordinated approach to oral health promotion. Is one being developed?

A State Oral Health Promotion Plan has not been developed as it is currently perceived that greater gains can be achieved working at a national level as well as taking a common risk factor approach to oral health promotion.

The National Oral Health Promotion Steering Group (NOHPSG), of which WA is a member, is driving this collaborative approach to oral health promotion nationally.

The primary role the NOHPSG is to work with oral health leaders across the country to improve oral health outcomes through identifying areas where high value oral health promotion initiatives can be shared and low value initiatives can be recognised and improved. The NOHPSG will achieve this by facilitating knowledge transfer between States and Territories.

The NOHPSG are currently focussed on the preventive effects of fluoride, for example extending community water fluoridation and the availability of alternative forms of fluoride for those without access to fluoridate drinking water.

In addition to participation at a national level, the Department of Health continues to work with a number of internal and external stakeholders in WA to support a common risk factor approach to oral health promotion (further details provided in question 6).

6. How are you working with other groups within (and outside) the Department of Health to tackle sugar consumption, which is obviously a big contributor to poor dental health?

Poor oral health can be attributed to a number of common risk factors such as poor diet (including a diet high in sugar), alcohol consumption and tobacco use. As these common risk factors can also be attributed to a number of chronic diseases and conditions such as obesity, heart disease, stroke, cancer and diabetes, an integrated risk factor approach to improve oral health outcomes must be considered.

The key concept of the integrated risk factor approach is that by directing action on these common risks and their underlying social determinants, improvements to the these chronic diseases and conditions (including oral disease) will occur more efficiently and effectively.

To do this the Department of Health is working with a number of internal and external stakeholders to address these common risk factors. For example:

- The Department of Health provides support to Foodbank WA in the delivery of programs such as the Food Sensations Parent 0-5 Program, which addresses the key risk factor of poor diet to improve nutritional outcomes of children living in the Pilbara. Foodbank WA is currently in the process of applying for a grant to conduct a pilot of the program in the metropolitan area.

- Collaboration between Department of Health Directorates such as the Office of the Chief Dental Officer and the Chronic Disease Prevention Directorate has taken place when developing, or providing advice, on relevant programs and campaigns such as Livelighter and Rethink Sugary Drink. Department of Health has also been a strong advocate and active in the space the health warnings and images tobacco product packaging due to the links between oral cancers and tobacco use.

- The Department of Health is also working with the Mental Health Commission and its Alcohol Think Again campaign to highlight the risks of associated with alcohol consumption including the increased risk of oral cancer as well as the increased risk of cancers when tobacco use is factored in.

7. Is the Department of Health (or the Water Corporation) doing any research to identify populations that are not receiving fluoride because they are drinking bottled water, and are there any strategies to combat this?

With regard to bottled water, the Department of Health is aware of research that has been carried out on a national basis, including that of Roy Morgan Research[6] and the Australasian Bottled Water Institute (ABWI)[7]. Similarly, interest amongst the major Australian water suppliers, such as the Water Corporation, is mainly at a national level, although Sydney Water has undertaken some research[8].

Additionally, foods and beverages manufactured in Australia are frequently prepared using fluoridated water, and in fluoridated areas, tap water consumed at school, at work and in public places provides further pathways to fluoride intake if tap water is not consumed in the home.

Nevertheless, the Department of Health is aware of certain small, remote Aboriginal communities where bottled water is the chief source of drinking water. The possibility of specifying fluoridated bottled water for these communities has been raised, but at this stage it does not seem to be a viable option.

Ultimately, fluoridation of community water supplies forms part of a suite of caries prevention initiatives that also relate to healthy diet, good oral hygiene, appropriate use of fluoridated toothpaste and regular dental check-ups. In most cases where fluoridated water is not consumed, the use of fluoridated toothpaste will provide some access to the dental caries prevention role of this substance.

People who rely on rainwater or bottled water for drinking and food preparation are usually advised to seek advice concerning fluoride requirements from their local dental professional, school dental service, community dental service or from the Australian Dental Association.

8. Is the use of bottled water higher in areas with a high proportion of migrants from countries where tap water is unsafe to drink?

There is no research evidence to suggest that that is the case across population or immigrant groups in WA, or in Australia generally. In countries where tap water is unsafe to drink, it is much more common to boil tap water for food and beverage preparation than to purchase bottled water.

[6] Details at: www.roymorgan.com/findings/6763-bottled-water-consumption-booming-201604190004
[7] Details at: www.australianbeverages.org/about-us/5994/abwi/
[8] Details at: www.awa.asn.au/AWA_MBRR/Publications/Latest_News/Bottled_water_is_booming_but_what_does_its_popularity_mean_for_water_utilities.aspx

9. If the Department of Health continues to fluoridate the water supply but fewer people are consuming tap water, is there a point at which fluoridation ceases to become cost-effective, and do you know what that point is?

The increasing consumption of bottled water in Australia is well established, and the ABWI states that it is the main source of drinking water for almost one in 10 households[9]. The Department's water fluoridation surveys bear this out: in the Bunbury area in 2011, bottled water was the most common type of water consumed by 6.4% of respondents, whereas in 2018, the figure was 15.5%.

Nonetheless, the Department of Health's recent water fluoridation surveys show that tap water from the public water supply is by far the commonest type of drinking water, with rainwater tanks a distant second, followed by store-bought bottled water third.

Nonetheless, fluoridation is so cost-effective that there is unlikely to be a plausible point at which the penetration of bottled water consumption could render fluoridation no longer cost-effective. Even for relatively small communities, this is a far-off prospect. The *State Oral Health Plan 2016-2020* recognises populations as low as 1000 as aspirational targets for community water fluoridation, and this reflects the increasing efficiency and economy of small fluoridation plants, as well as the great cost effectiveness of community water fluoridation.

This cost effectiveness is something the NHMRC incorporated in its 2017 publication *Water Fluoridation and Human Health in Australia: Questions and Answers"*[10]. It found that fluoridating water in Australia is a population-wide investment, and that in Australia, for every dollar that is spent on fluoridation, between $7 and $18 is saved due to avoided treatment costs. For example, studies have reported that following the introduction of water fluoridation in Victoria, the community saved about $1 billion over a 25-year period through avoided costs from dental treatment and days absent from work or school[11].

[9] Details at: www.choice.com.au/food-and-drink/drinks/water/articles/bottled-water
[10] Details at: www.nhmrc.gov.au/_files_nhmrc/file/publications/17667_-_nhmrc_-_water_fluoridation_qanda-web.pdf
[11] Ibid.

10. What was the cost of adding fluoride to the public water supply for the period 1 July 2016–30 June 2017?

This cost has come entirely out of Water Corporation funds, and is commercial-in-confidence. The reason is that the Water Corporation periodically has to call tenders for the supply of approved fluoridating chemicals, and needs to keep its cost structures confidential in order to obtain the most competitive tenders.

However, the Water Corporation has advised us that for indicative purposes, an approximate overall average figure in fluoridated areas of $1 per person per annum would not be an unreasonable estimate.

For further research on this aspect, I commend the following paper for your Committee's reference[12]:

- Cobiac, Linda J. and Vos, Theo, "*Cost-effectiveness of extending the coverage of water supply fluoridation for the prevention of dental caries in Australia*", Community Dentistry and Oral Epidemiology, 2012 *40* 4: 369-376.

[12] Details at: https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1600-0528.2012.00684.x

MATTERS RELATING TO FLUORIDE FREE WA

We do not have a copy of the submission that was received from Fluoride Free WA, but we do have the transcript of their appearance before your Committee, and the transcript clarification posted on your web site. In her opening remarks to the Fluoride Free WA witnesses, the Chair indicated that your Committee wanted evidence in relation to the following matters:

1. Effectiveness of fluoridation of drinking water as a method of preventing decay
2. Nature of the public consultation in areas where fluoridation is and has been proposed
3. Access to information regarding decisions of the Fluoridation of Public Water Supplies Advisory Committee
4. Evidence that members of the public are avoiding drinking fluoridated water by using filters or drinking bottled water.

1. Effectiveness of fluoridation as a method of preventing decay

We have received advice from Dr Sarah Palmer that, given the time constraints, it is not necessary to provide further evidence for the efficacy of fluoridation as a dental health protection measure, because your Committee already has a lot of information about this from sources such as the NHMRC.

In summary, detailed information, based on the NHMRC 2017 review into the health effects of water fluoridation, is readily available from the NHMRC web site[13].

We invite your Committee to note that Professor Anne Kelso AO, Chief Executive Officer of the NHMRC, has written to several local Councils in eastern States in March of this year, assuring them of the rigour of the processes used to review the evidence and develop the resources on the NHMRC webpage. We commend this letter[14] to your Committee and also commend the significant body of work published recently by the NHMRC in relation to community water fluoridation.

Nonetheless, we feel that some of the statements made by Fluoride Free WA in their session should not pass without comment, in particular claims about:

- The Fluoride Action Network chart derived from the CAPP database
- The Cochrane review
- The NHMRC 2017 review
- WA Dental Health Outcomes report
- Plumbosolvency

[13] Details at: www.nhmrc.gov.au/health-topics/health-effects-water-fluoridation
[14] Details at: www.nhmrc.gov.au/_files_nhmrc/file/your_health/fluoridation/prof_kelso_open_letter_for_councillors.pdf

The Fluoride Action Network chart

When Mr Marmion held up the chart that had been left behind by Fluoride Free WA, I recognised it immediately and told an anecdote about my correspondence with the WHO Collaborating Centre for Education, Training and Research in Oral Health at the University of Malmö in Sweden (not Denmark, as I incorrectly remembered). This is the Centre that had assembled the Country/Area Profile Project (CAPP) data used by Chris Neurath of the Fluoride Action Network in the USA, to produce the chart.

The Director of the Centre, Professor Peter Carlsson, replied on 7 January 2014, telling me: "The graphs given as examples (very well known here at CAPP!) are indeed striking and bring up the old truth that 'There are lies, there are outrageous lies, and there are statistics.' As people with a mission often ignore questions about scientific causation, I am sure that the national data will be used in many ways for which they are not suitable nor intended."

The important point here is that the chart was produced by the incorrect use of data that was not intended, and is indeed not suitable, for this application, was not produced by the World Health Organization, yet is claimed to represent World Health Organization data. Whilst the data may well have originated from the WHO CAPP database, its interpretation in a chart created by those opposed to water fluoridation is simply wrong and misleading.

The Cochrane review

Ever since the Cochrane review[15] was published in 2015, proponents and opponents of fluoridation alike have been finding things in it to support their point of view. This is because the review finds evidence for the effectiveness of fluoridation in reducing the levels of tooth decay among children, but is arguably unsure of the applicability of the results to the present day because 14 of the 20 studies reviewed were conducted before 1975.

In a multi-author, peer-reviewed critique of the Cochrane review[16], it was called an "empty review," because 97% of the studies looked at were rejected as not meeting its strict criteria. The critique examined the conduct of the review, and put it into context in the wider body of evidence regarding the effectiveness of water fluoridation. It highlighted the lost opportunity to evaluate the vast majority of recent studies on water fluoridation, in order to answer the many important public health questions that were not answered by the review.

[15] Iheozor-Ejiofor Z, Worthington HV, Walsh T, O'Malley L, Clarkson JE, Macey R, et al. *Water fluoridation for the prevention of dental caries.* The Cochrane Database of Systematic Reviews. 2 015;6:CD010856

[16] Rugg-Gunn, A. J., Spencer, A. J., Whelton, H. P., Jones, C., Beal, J. F., Castle, P., Cooney, P. V., Johnson, J., Kelly, M. P., Lennon, M. A., McGinley, J., O'Mullane, D., Sgan-Cohen, H. D., Sharma, P. P., Thomson, W. M., Woodward, S. M., Zusman, S. P. (2016). *Critique of the review of 'Water fluoridation for the prevention of dental caries' published by the Cochrane Collaboration in 2015.* British Dental Journal, **220**, 335–340.

The table overleaf and below compares the evidence put to your Committee by Mr Parry with the actual words used in the plain language summary of the Cochrane review and (for reference) with the 2017 NHMRC Information Paper[17].

In my view Mr Parry's remarks about the Cochrane review, like most similar remarks made by those opposed to water fluoridation when referring to the Cochrane review, clearly misrepresent the review, or take its findings out of context, and are refuted by the conclusions of all reviews into fluoridation carried out worldwide in recent decades, and with the NHMRC (2017) review in particular.

The updated Cochrane review mentioned in the table overleaf evaluated fluoride mouthrinses, and confirmed that supervised regular use of fluoride mouthrinses can reduce tooth decay in children and adolescents. It added: "*This benefit is likely to be present even if children use fluoride toothpaste or live in water-fluoridated areas.*" That is, the effects of fluoride mouthrinses and fluoridation are additive, contrary to Mr Parry's interpretation in the table overleaf.

Andrew Parry transcript statements	**Cochrane review**	**NHMRC (2017) Information Paper**
No high-quality research showing that fluoridation provided any benefits to adults	Within the 'before and after' studies we were looking for, we did not find any on the benefits of fluoridated water for adults.	There is consistent evidence that water fluoridation at current Australian levels is associated with decreased occurrence and severity of tooth decay in children, adolescents and adults.
No high-quality research showing that fluoridation provided additional benefits over and above topically applied fluoride	Not mentioned in the plain language summary, but there is a reference to another Cochrane review, now updated (2016)[18]. See paragraph below.	*[No comment]*

[17] National Health and Medical Research Council (NHMRC) 2017, *Information paper – Water fluoridation: dental and other human health outcomes*, report prepared by the Clinical Trials Centre at University of Sydney, NHMRC; Canberra.

[18] Marinho, VCC, Chong, LY, Worthington, HV, Walsh, T. *Fluoride mouthrinses for preventing dental caries in children and adolescents*, Cochrane Database of Systematic Reviews, 2016

No high-quality research showing that fluoridation reduced inequalities among children from different socio-economic groups	We found insufficient information to determine whether fluoridation reduces differences in tooth decay levels between children from poorer and more affluent backgrounds.	there is some limited evidence suggesting that water fluoridation reduces inequalities in tooth decay across socio-economic groups.
No high-quality research showing that tooth decay increased in communities when fluoridation is stopped.	We found insufficient information about the effects of stopping water fluoridation.	A recent systematic review[19] looking at the effect of the cessation of water fluoridation on tooth decay suggests an increase in tooth decay after cessation of water fluoridation; however, this is not uniform across all studies.
The Cochrane team was not convinced that the studies showing that water fluoridation reduces decay in children are applicable to today's society. (Overleaf) they discounted those figures.	Our review found that water fluoridation is effective at reducing levels of tooth decay among children … These results are based predominantly on old studies and may not be applicable today.	Recent reviews found that there was a mean/median decrease in tooth decay … in children and adolescents between 26 and 44%

The NHMRC (2017) review

Mr Parry asserted that "*nearly all the studies conducted in Australia do not control for confounding factors*." A glance at the NHMRC Information Paper reveals that this was one of the key considerations in the acceptability of studies, along with sample size and bias (page 18).

NHMRC was also concerned that the Cochrane review had excluded many relevant observational studies and recent studies conducted in Australia and other similar countries with longstanding water fluoridation programs, and hence conducted a systematic search to identify studies relevant to Australia, and important for decision making (page 13). Studies that took place in Australia, or in countries with similar conditions to Australia, were considered highly applicable, since these results could be generalised to Australia. They were therefore very relevant to making decisions about water fluoridation in Australia (page 19).

[19] McLaren L, Singhal S. *Does cessation of community water fluoridation lead to an increase in tooth decay? A systematic review of published studies*. Journal of Epidemiology and Community Health. 2016, **70,** 934-940.

The broad outcomes of the NHMRC review relating to tooth decay are summarised in the table above.

On another aspect, Mr Watt stated that the NHMRC "ignored over 300 animal studies." He asked why on earth they had done that, professing not to understand it at all, despite having just having answered his own question: "because they are not human."

In fact, NHMRC could not have made the answer any clearer. In their Information Paper, they explain: "*because the focus is on health outcomes in humans only, and there is evidence on humans with which to work*" (page 15). They add: "*Animal studies might suggest mechanisms to explain how fluoride could affect health, but the applicability of these studies to human health is uncertain due to biological differences between species*." So in the Chair's terms, they preferred human studies to animal ones.

On a related matter, Mr Parry said: "They preferred WA Health's report" (the WA Dental Health Outcomes report discussed below). In fact, this report was never sent to NHMRC, and the NHMRC never considered it.*

In summary, when considering the quality of information put forward by those opposed to community water fluoridation, I can only agree with the remarks made by the Minister for Health, in response to petitions submitted by or on behalf of individuals in conjunction with Fluoride Free WA and other opponents of water fluoridation to the WA Parliament in 2017, in which the Minister stated[20]:

"The views expressed in the submission about claimed adverse health effects from water fluoridation, claims that fluoridated drinking water is 'medicine', and claims that fluoridation is not effective in relation to dental caries, appear to be rhetorical remarks drawn from dedicated anti-fluoridation literature circulating on the internet or on social media, or from the web sites or self-published literature by individuals or overseas organisations opposed to water fluoridation, that are cited therein. The conclusions are not backed by any credible peer-reviewed evidence."

[20] Details at: www.parliament.wa.gov.au/Parliament/petitionsdb.nsf/($all)/E1088023D839221C482582510013E259/$file/ev.016.171205.let.001.rc.pdf

* NOTE FROM COMMITTEE - This statement was corrected the following day; see end of document.

WA Dental Health Outcomes report

The key points raised by Fluoride Free WA in their transcript were about:

- The metrics used in reporting the results
- The methods of analysis used
- The design of the study.

Taking these in reverse order:

The design of the study

A study design such that socio-economic effects can be controlled for highly desirable, but often not realistic. It requires adequate funding and the ability to recruit research staff to collect and analyse data specific for that purpose. This study made use of School Dental Service data that was already recorded for clinical and administrative purposes. The authors chose the study design that was most appropriate to the data that was available. The data were well suited to a cross-sectional design, and that is the design that was used.

It is true that socio-economic effects constitute an important confounder, and it is highly desirable to control for them if possible. This important contextual information is there for everyone to read in the section of the report headed *Limitations*. The authors also pointed out other uncontrolled confounders that Mr Parry did not mention, such as diet, and dental and oral hygiene.

The limitations section also states that previous research has shown that "fluoridation continues to have a positive influence on dental outcomes after simultaneously controlling for these types of factors", an important aspect that was not acknowledged in the Fluoride Free WA transcript. Other limitations to the study are also set out in a very frank and open manner, in order to be clear about the study's limitations.

It's interesting that Dr Peter Arrow of the Dental Health Services (within the Department of Health) has published another paper[21] using School Dental Service data, from 2014. Although this was also a cross-sectional study, Dr Arrow was able to use a group measure of socio-economic effects at the school level – the Index of Community Socio-Educational Advantage (ICSEA). Dr Arrow's research showed that lower ICSEA level was associated with a 40% increase in risk of the occurrence of dental caries, but also, that living in unfluoridated areas carried a 110% increase in risk.

[21] Arrow, P: *Oral health of schoolchildren in Western Australia*. Aust Dent J, **61**, 333-341. Abstract at https://onlinelibrary.wiley.com/doi/full/10.1111/adj.12368.

The methods of analysis

The study looked at 10,825 children between the ages of 5 and 12, of whom 9,972 lived in the metropolitan area (fluoridated), while 853 lived in unfluoridated parts of the South West of Western Australia. Children were grouped into five age groups for whom the deciduous teeth were studied, and six for which their permanent teeth were studied, and were stratified on the basis of whether or not the local water supply was fluoridated. Of the unfluoridated subgroups, eight of eleven samples included between 102 and 110 children, one included 149, and two included 172 or 173 children.

Of the differences in average caries occurrence by fluoridation status in the eleven groups, only one was statistically significant by the classic chi-square test. The smaller the numbers in the subgroups, the bigger the differences have to be before they become statistically significant by this test. So if you're not too keen on differences being statistically significant, the more groups you should split your subjects into.

Of note, in all eleven comparisons, whether statistically significant or not, it is the unfluoridated South West cohort where the larger prevalence of caries occurred. Due to low statistical power (low numbers of children in the sub-groups in the South West) the chi-square is unable to verify the significance of the observed distribution.

Instead of lumping the children into 22 subgroups and carrying out eleven tests, it makes considerably more sense to put all 10,825 of them individually into the analysis and harness the full power of the data we have on each one of them. In essence, that is what regression models do, and that is one reason why they are such a powerful method of analysis in epidemiology[22]. . Browsing through any epidemiology journal today will show that the majority of research studies use some form or other of regression modelling.

Mr Parry appears to be concerned about the distorting effects of confounders in epidemiological research, so he should take a greater interest in regression modelling. One of the great advantages of regression models is their ability to take into account the effects of potential confounders. The Western Australian report is a text-book example of how to do this. It describes how each of the potential confounders about which the authors had information for each child was assessed using univariate logistic regression, following which a multivariate logistic regression model was constructed to assess whether there was an association between fluoridated versus unfluoridated area of residence and the occurrence of dental caries, after taking account of these potential confounders.

[22] Bender, R. (2009): *Introduction to the use of regression models in epidemiology*. Methods in Molecular Biology, **471**, 179-95.

Dr Arrow's paper also uses a form of regression analysis – it is doubtful whether a study of this type would be accepted for publication in a peer-reviewed journal today if it did not incorporate some form of regression analysis.

The metrics used in reporting the results

Mr Parry espouses the percentage difference in dental decay as the epidemiologically relevant measure for this type of study, and is critical of the Department of Health for using odds ratios in reporting the results of this study, "as if it [an odds ratio] were a percentage difference in decay rates."

The Department of Health considered a range of measures for this study, and chose three measures in addition to odds ratios, based on their ability to allow for meaningful comparisons between populations, comparability to previous studies, and their ability to be understood and interpreted by a general audience. As noted above the, added value of using odds ratios in regression modelling is their ability to control for possible confounding variables. Odds ratios are extremely common in the modern epidemiological literature, and it is essential in this field to be odds-ratio literate.

When the Minister for Health stated that an odds ratio of 1.5-1.6 for children in the unfluoridated South West meant that they are at a 50 to 60% greater risk of having tooth decay, compared with children from the fluoridated Perth metropolitan area, that is exactly what it does mean (after controlling for age, sex, Aboriginal status and whether it is the child's first attendance at a Dental Treatment Centre).

If the Minister for Health had been referring to Dr Arrow's research, which is equally important, the Minister could have rightly said that the children in the unfluoridated South West had a 110% greater risk of tooth decay, compared with children from the fluoridated Perth metropolitan area, and that is after controlling for the ICSEA level of the schools attended.

In summary, the claims put forward by Mr Parry in relation to this report, as recorded in the transcript, have no scientific merit and can thus rightly be regarded as an expression of his own opinion and that of others who are opposed to water fluoridation, but nothing more significant than that. The claims of "scientific fraud" by Mr Parry are entirely without merit, and represent the usual empty rhetoric we have encountered from organised fluoridation opponents over the years.

Claims of plumbosolvency

Mr Parry referred to a recent submission to the NHMRC that mentioned the "plumbosolvency effect," whereby it is claimed that fluoride increases the concentration of lead in reticulated water systems. The submission itself referred to fluoridation chemicals increasing the dissolution of lead from pipes, including PVC, solder and brass fittings used in the water supply distribution network and

household[23]. Mr Parry said this was particularly relevant for Perth and Western Australia, and "may be especially relevant to the high levels of lead that have been discovered and reported."

The claim that community water fluoridation is somehow linked to, or increases, high levels of lead that have been discovered and reported in Western Australia is speculation that is irrefutably wrong. Such claims are commonly and frequently put forward by individuals opposed to community water fluoridation and/or circulated on social media sites opposed to water fluoridation.

It is instructive to note that they are typical of such claims, insofar as they almost always use the speculative term "may" in relation to alleged adverse effects of "fluoride", without any evidence to substantiate the claim, whilst inviting the reader to conclude that therefore community water fluoridation is somehow harmful.

Plumbosolvency is one of the unwanted effects of aggressive water, and the management of aggressive water is an important part of the role of the water chemist. Aggressivity of water is controlled by the use of caustic soda and similar alkaline water additives, and its management is part of the everyday business of water chemists and water engineers. When aggressivity is properly controlled, the plumbosolvency problem simply disappears. We can be assured that the Water Corporation people are well trained and experienced in the management of aggressive water, and that this is not an issue in Western Australia.

2. Public consultations in areas where fluoridation is proposed

As Mr Parry told your Committee, nothing in the *Fluoridation of Public Water Supplies Act 1966* or other legislation requires or supports the practice of public consultation in relation to a proposal to fluoridate our public water. The only requirements the Fluoridation of Public Water Supplies Advisory Committee must comply with before making a recommendation to the Minister for the fluoridation of a public water supply are to:

- ascertain how much fluoride is already in the water supply, and
- ensure that the amount it proposes to add will not bring the total amount to more than 1 milligram per litre.

Consultative procedures were initiated by the Advisory Committee and at first were confined to a simple exchange of letters with the relevant local governments. That of course continues, but over time the procedure has evolved, as I explained in my evidence to your Committee.

[23] Pain, G. (2017): *Submission to NHMRC Public Consultations Draft NHMRC Information Paper: Effects of water fluoridation on dental and other health outcomes*. www.researchgate.net/publication/320620072_Submission_to_NHMRC_Public_Consultations_Draft_NHMRC_Information_Paper_Effects_of_water_fluoridation_on_dental_and_other_health_outcomes.

It is common practice for us to meet with senior officials and Councillors of the local government upon arriving in town to conduct a public consultation meeting. It has now become the practice to hold public consultations in the evening so that people who work during the day can attend. We will continue to work to improve our consultation procedures.

Mr Watt put to you a scenario of fluoridation by stealth, but nothing could be further from the truth. He claimed that that when a town is fluoridated, nobody knows about it until it has happened. In a narrow sense, it is true that the Water Corporation cannot, for technical reasons, commit to the exact date when fluoridation will commence, but it is always common knowledge that fluoridation is coming, and within what general timeframe.

Mr Watt also painted us in a bad light over the Kununurra "missing advertisement" affair. When we held our public consultation meeting in Kununurra in September 2010, only nine people turned up (all in favour of fluoridation, as it happened). The Shire knew we were coming, and the ABC had done a radio interview about our visit a couple of days beforehand with the Advisory Committee's Secretary, Mr Richard Theobald, of the Department of Health. The *Kimberley Echo* also received our media release, although they did not use it. We know there were others who were aware we were coming to the community.

The problem though, was that the half-page advertisement about the 2010 consultation meeting, that we had ordered to be placed with the *Kimberley Echo*, did not appear. We did not become aware of this until some years later, when it was drawn to our attention. By then the trail of what went wrong had gone cold, but the likelihood is that the lapse occurred somewhere in the Department's communications section.

At the very well attended information session held in Kununurra six years later, I gave a public apology over the missing advertisement. My apology was for our failure to check whether the advertisement had run in the *Echo* as intended. It was never a case, as Mr Watt put it, of "Oh well, we must have forgotten to put it in." and we reject that insinuation made by him to your Committee about us or our processes.

We now have an efficient and dedicated Departmental communications consultant who has been very effective in ensuring that our travels around the State are well publicised.

It is simply disingenuous and misleading (but not unusual) for opponents of water fluoridation to conflate one example of a non-published advertisement as being an entire operation "by stealth", particularly when, in the case of Kununurra, the other modes of communication operated and that also the Shire of Wyndham-East Kimberley received written advice about the consultation process in 2010.

For the record, in relation to questions about consultation for Kununurra, the Department of Health (DOH) wrote to the Shire of Wyndham East Kimberley in September 2010, advising the Shire that the local Kununurra drinking water supply was not presently fluoridated, that local public consultation was being arranged and seeking the Council's views on this. No response was received.

A media release was prepared and DOH representatives held a public meeting in Kununurra in September 2010, to gauge the community's response to the proposal to fluoridate the local water supply and to emphasise the importance of seeking community views and opinions.

The community response at the time was very positive. All community members who attended the public meeting in Kununurra supported water fluoridation (by signing the provided response register); none opposed it. The DOH also recorded that dental health professionals in Kununurra strongly supported the proposal. Opportunities were also provided for interested individuals to write to the DOH with their views after that date.

After the directive was made by the Minister for Health to fluoridate the Kununurra water supply, media and public advice were circulated, in November 2015. Follow-up public and media information on the introduction of water fluoridation for Kununurra was provided later in 2016 and again in 2017.

3. The Fluoridation of Public Water Supplies Advisory Committee

Mr Parry questioned my status as Chair of this Committee, whether the Advisory Committee is lawfully constituted, and whether the recommendations "purportedly made" by it have legal validity.

As you are aware, I have delegated authority from the Chief Health Officer, Dr Tarun Weeramanthri, to act as Chair of the Advisory Committee, and for the record, I enclose a copy of my current instrument of delegation, the last of a series going back over ten years[24].

The names of all members of the Advisory Committee are submitted to Cabinet for information, and the three appointed members are all properly appointed by signed instrument of the Minister for Health for a period of three years.

Apart from regulating its own procedure and determining its business, the Advisory Committee makes no "decisions" as such. It recommends certain actions to the Department of Health, including the holding of consultation meetings and information sessions and commissioning of surveys. The Advisory Committee's formal role is to make written recommendations to the Minister for Health for the fluoridation of specified public water supplies in Western Australia, and for the

[24] Please refer final page of this submission.

issuing of written Ministerial directives to the relevant water supply authorities to give effect to such recommendations.

The Advisory Committee regards its recommendations to the Minister as the property of the Minister, and does not disclose them, that prerogative being reserved to the Minister.

For the record, the requests for minutes of the Advisory Committee under the *Freedom of Information Act 1992* that were referred to originated from an individual in Queensland (i.e. not from Fluoride Free WA) who, in their application, agreed to redactions about personally identifiable details, so for a representative of Fluoride Free WA to complain that they are "heavily redacted" is in my view disingenuous. The only other redactions are, quite properly and in accordance with the Act, to prevent disclosure of material pertaining to recommendations that have gone to the Minister for Health for decision.

Contrary to the impression given by Mr Watt in his evidence, there has been extensive correspondence that has taken place between Fluoride Free WA and the Advisory Committee over recent years, prior to Fluoride Free WA being registered as a political party in WA. This correspondence can be provided to your committee on request.

As Fluoride Free WA is currently registered as a political party in WA, any information request it or its officers might make to the Advisory Committee, or indeed the Department of Health, on its behalf would normally be made via the office of the Minister for Health.

Perhaps the main reason for Mr Watt's concern is expressed in his final statement to your Committee: "*We do not know who the members of the Advisory Committee are; we cannot ring them up*." That is the very reason the members have voted to have their names protected.

4. Avoidance of drinking fluoridated water

We do have some information on this matter from our water fluoridation surveys, and are happy to provide this to your Committee.

What is interesting is that more bottled water drinkers disagree with community water fluoridation than people drinking mainly from the public water supply. Because of low numbers, the Department's water fluoridation surveys combine those drinking mainly from store-bought bottled water, rainwater, and other non-public water in analysing attitudes to fluoridation amongst people whose commonest source of drinking water is other than the public water supply, and then comparing them with the attitudes of those drinking mainly from the public water supply.

For example, in the 2018 water fluoridation survey of Bunbury and Dalyellup, although support for fluoridation was the commonest response amongst people whose main source of drinking water is other than the public water supply, opposition to fluoridation was quite strong at 29.5% of respondents (Table 18). Amongst those drinking mainly from the public water supply, only 17.1% did not agree with fluoridation, while 56.8% supported it. A similar pattern is seen in other water fluoridation surveys.

It is reasonable to conclude that a small minority of people will avoid public water supplies because they are opposed to community water fluoridation. This is of course their choice. Contrary to the impression created by some opponents of community water fluoridation, there is nothing "forced" or compulsory about water fluoridation. In fact, it is a lot easier (and cheaper) for those who want to avoid fluoridated water to do so, than it is for those in unfluoridated areas to obtain the benefits of fluoride, should they seek them for themselves and their children.

This is evidenced by the records of the School Dental Service, which show that despite the best endeavours of their staff to protect children living in unfluoridated areas by offering them special preventive treatments (as described above), the oral health outcomes for such children are still worse, on average, than for children living in fluoridated areas. The experience of our children in the remaining unfluoridated areas of our State is a telling illustration of the fact that, for all the oral hygiene measures they can take, the best oral health outcomes are only achieved when fluoridation is part of the mix.

Closing remarks

I conclude by, once again, quoting from the Minister for Health in his submission to the Environment and Public Affairs Committee in 2017 in response to petitions opposed to water fluoridation:

> *It remains true that, in any community, some community members sincerely believe that public health initiatives such as water fluoridation are harmful, or for reasons of their own become opposed to water fluoridation. Whilst the individual passion and commitment of those who are opposed to water fluoridation is respected, the weight of peer reviewed, epidemiological and medical evidence continues to support the safety and efficacy of water fluoridation.*
>
> *It is not possible to design a community information strategy that will satisfy those opposed to fluoridation, or to ensure that every individual community member supports such initiatives. A balance must thus be struck between accommodating the views of individuals and protecting public health.*

Nonetheless, the State Government has a responsibility to promote the best possible community health outcomes, and this includes extending the benefits of water fluoridation within WA. Ultimately, there is no credible evidence to invalidate the safety or efficacy of water fluoridation as a public health measure, and no sound public policy grounds or public health grounds for not introducing this key public health benefit, either for Kununurra or other similar communities in WA.

Thank you for your interest in this key public health initiative.

Dr Richard Lugg
CHAIR
FLUORIDATION OF PUBLIC WATER SUPPLIES ADVISORY COMMITTEE

5 June 2018

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Instrument of delegation from the Chief Health Officer, Dr Tarun Weeramanthri

INSTRUMENT OF DESIGNATION

Fluoridation of Public Water Supplies Act 1966

1. I, Professor Tarun Weeramanthri, Chief Health Officer, pursuant to the provisions of section 5(4) of the *Fluoridation of Public Water Supplies Act 1966*, hereby designate:

   (a) Dr Richard Lugg to act in my stead as Chairman and member of the Fluoridation of Public Water Supplies Advisory Committee in relation to every meeting of the Committee that I, for any reason, am unable to attend.

   (b) The person holding the office of Deputy Chief Health Officer, to act in my stead as Chairman and member of the Fluoridation of Public Water Supplies Advisory Committee in relation to every meeting of the Committee that I or Dr Richard Lugg, for any reason, are unable to attend.

2. This designation shall remain in force until otherwise amended or revoked.

Dated this 24th day of January 2017

Professor Tarun Weeramanthri
CHIEF HEALTH OFFICER

ADDENDUM

Correction to correspondence of 5 June 2018, provided to the Committee by Dr Richard Lugg on 6 June 2018

Admin, LACO

Subject: FW: Reply to correspondence from the Education and Health Standing Committee

-----Original Message-----
From: Lugg, Richard [mailto:Richard.Lugg@health.wa.gov.au]
Sent: Wednesday, 6 June 2018 4:51 PM
To: Committee, Education & Health Standing <laehsc@parliament.wa.gov.au>
Subject: FW: Reply to correspondence from the Education and Health Standing Committee

Attention: Ms JM Freeman, MLA

Dear Ms Freeman

I have spotted an error in the letter sent to you last night that I need to bring to your attention.

Concerning the WA Dental Health Outcomes report, I wrote on page 20 of the letter: "In fact, this report was never sent to NHMRC, and the NHMRC never considered it." But in fact, it is mentioned in the NHMRC Information Paper, on pages 28-29, where the findings of the report are well summarised. A citation appears on page 79, where it is listed as reference 63 in the Information Paper.

My apologies for this error.

Yours sincerely

Richard

Dr Richard Lugg
Chair
Fluoridation of Public Water Supplies Advisory Committee Tel. 08 9358 2431,

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