

# **APHCRI Centre for Research Excellence in Primary Oral Health Care**



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**Parliament of Tasmania**

**Joint Select Committee**

**Inquiry into Preventive Health Care**

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## **ABOUT THE RESEARCH CENTRE OF EXCELLENCE IN PRIMARY ORAL HEALTH CARE**

The Research Centre of Excellence in Primary Oral Health Care (CRE) is a collaboration between the Centre for Rural Health at the University of Tasmania, the Australian Research Centre for Population Oral Health at the University of Adelaide, and the School of Dentistry at The University of Western Australia.

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Thank you for the opportunity to submit to the Joint Select Committee Inquiry into Preventive Health Care.

## **ORAL HEALTH IN TASMANIA**

Oral Health is fundamental to overall health and quality of life. Poor oral health can disrupt speech, sleep and productivity, erode self-esteem, psychological and social wellbeing, and impact relationships and general quality of life (Kramer et al. 2013, Gerritsen et al. 2010).

The prevalence and recurrences of these impacts constitutes a silent epidemic. Dental caries is the second most costly diet-related disease in Australia, with an economic impact comparable with that of heart disease and diabetes. Expenditure on dentistry in Australia was \$8.3 billion in 2011-12 or 7.5% of total health funding (AIHW, 2014a). Oral disease is one of the four most expensive Australian preventable chronic diseases.

More and more links are being found between oral and general health. Examples include coronary heart risk (Hujoel et al. 2000) rheumatoid arthritis (Mercado et al. 2000), and diabetes mellitus (Khader et al. 2006). More than 63,000 Australians are hospitalised each year for preventable dental conditions; the third highest reason for acute preventable hospital admissions in Australia (AIHW, 2014b).

Tasmania has poor adult oral health. Tasmanians are more likely to have an inadequate dentition, (fewer than 21 teeth) than their mainland counterparts (Roberts-Thomson and Do, 2007). Tasmania is more decentralized, has an older population, lower socioeconomic status (ABS, 2011), and a higher proportion of people eligible for public dental care than mainland Australia (ABS, 2011). Tasmanians from rural areas live in a different physical environment, are more likely to be poorer, older, and less educated (ABS, 2011), have poorer oral health (Crocombe et al. 2010) and suffer from poorer access to dental care than their metropolitan counterparts (AIHW, 2008).

## ACCESS TO DENTAL CARE

For those who can access it, excellent dental care is available in Tasmania. However, many people have poor oral health, including frail and older people (Chalmers et al. 2002), rural residents (Crocombe et al. 2010), Indigenous Australians (Slack-Smith et al. 2011), people with physical and intellectual disabilities (Pradhan et al. 2009), and people of low socio-economic status (Sanders et al. 2004, Vanobbergen et al. 2010).

All is not doom and gloom. Oral health outcomes have improved over the generations. For those who lived through World Wars I and II, dentistry frequently involved extracting teeth and making dentures. For the next generation (the baby boomers), dentistry involved restoring teeth. The latest generations have not suffered from poor oral health to the extent of previous generations (Slade et al. 2007, Crocombe et al. 2010).

Research has shown that currently regularly visiting a dentist doesn't reduce your tooth decay experience (National Advisory Committee on Oral Health, 2004), but that doesn't mean dental treatment is a waste of time. Regular dental visiting allows dental clinicians to treat disease in its early stages. However, this can lead to "the repeat restoration cycle" (Elderton, 1990) of filling and then later refilling the same teeth as restorations collapsed or more tooth decay occurs. More evidence-based preventive dental care is needed.

A limitation to supplying dental care has been in having an adequate dental workforce, but recent modelling has shown that this problem is being solved. Across the projection period to 2025, the supply of the oral health workforce is projected to exceed demand (HWA, 2014).

However, the expansion of dental services to supply dental care to all Tasmanians would be beyond the financial capabilities of the Tasmanian Government. Some argue that it would be even beyond the financial capabilities of the Australian Government. Senator Walsh in his book *Confessions of a Failed Finance Minister* advised that:

"dental treatment has the potential to be a bottomless fiscal pit which no Commonwealth Government should go near" (Walsh, 2005).

Simply, Tasmania, even with the best intentions in the world, cannot afford to supply the dental care needed to maintain a high level of oral health for its relatively high proportion of health care card holders. In fact, there is no guarantee that the Commonwealth-funded Child Dental Benefits Scheme, an important source of funding for Oral Health Services Tasmania, will continue into the future. Hence, funding levels could decrease worsening oral health outcomes for Tasmanians who access public oral health care.

An evidence-based preventive health care strategy both within and outside the dental surgery is needed to improve Tasmanian oral health in a cost-effective manner.

## **EVIDENCE-BASED ORAL DISEASE PREVENTION STRATEGIES TO IMPROVE THE ORAL HEALTH OF TASMANIANS**

Many factors 'cause' oral diseases. Economic, political and environmental conditions influence the social and community context, which in turn affects oral health-related behaviour. The oral disease risk factors (such as high sugar diets, poor hygiene, smoking and excessive alcohol intake) are also risk factors for obesity, diabetes, cancers, heart disease and respiratory diseases. Incorporating oral health promotion into general health promotion by taking a 'common risk factor' approach is likely to be more efficient and effective than programs targeting a single disease or condition (Rogers, 2011, Vanobbergen et al. 2010, Sheiham & Watt, 2012, Espinoza et al. 2013).

While oral diseases share common risk factors with general health indicating an integrated approach is appropriate, certain specific oral health promotion aspects also require addressing. These aspects include the use of fluoride, oral hygiene and timely, preventively focused dental visits.

While the primary focus of any system of oral health care should focus on the prevention of disease (Nash, 2012), dental directors face challenges such as maintaining or ensuring sustainable funding, providing quality care, and the movement towards a pay for performance model (Marks & Mertz, 2014). The current service delivery targets required of Oral Health Services Tasmania, where clinical care such as extractions and restorations carry more weight than preventive care, limits the ability of Oral Health Services Tasmania in investigating the use of preventive approaches both within the dental surgery and within the Tasmanian community.

Although dental education does not change habits (Kay & Locker, 1995), it is first step towards healthy behaviour. Dental clinicians should be encouraged to educate people about oral hygiene, particularly toothbrushing with fluoride toothpaste (Davies et al. 2003), diet (Rugg-Gunn, 1993), how smoking is linked with poor gum health (Do et al. 2008), and how smoking and excessive alcohol intake are risk factors for oral cancer (AIHW, 2004a).

As well as oral health education, Oral Health Services Tasmania undertakes preventive dental procedures such as sodium fluoride varnish applications and the use of fissure sealants. The Research Centre of Excellence in Primary Oral Health Care at the University of Tasmania in partnership with Southern Dental Industries, is investigating whether the use of once-only treatment of silver diamine fluoride covered by a glass ionomer fissure sealant (Zhi et al. 2012, Rosenblatt et al. 2009) will effectively turn the dental caries into a caries resistant restoration as opposed to the use of three-monthly applications of fluoride varnish, or the traditional surgical restorative approach of drilling, filling and extracting teeth. The traditional surgical restorative approach is both expensive and causes trepidation in some people. This project has the potential to change the philosophy of dentistry from one of an expensive surgical tooth restorative and extraction approach to one that involves treating the dental caries disease by either preventing it or arresting its progress. Oral Health Services Tasmania should be encouraged to progress this project.

Effective and innovative community-based oral health promotion interventions also need to be encouraged. For example, an initiative of the Tasmanian Department of Health and Human Service, the *Move Well Eat Well* program works with whole early childhood services or primary school communities, creating and reinforcing an environment where healthy choices are made easier for children. The aim is to help children aged 0-12 develop healthy habits for life and provide opportunities for optimal learning and development. While many children enjoy a healthy lifestyle, there are a significant number of Tasmanian children who are missing out on the benefits of healthy eating and

physical activity. *Move Well Eat Well* has been adapted for Tasmanian early childhood education and care services, in particular long day care, family day care and kindergartens (Tasmanian Department of Health and Human Services, 2104).

Another initiative which should be further encouraged is the TasCanteen which is funded by the Tasmanian Government through the Department of Health and Human Services and the Department of Education; and the Australian and Tasmanian Government, as a joint initiative under the National Partnership Agreement on Preventive Health (Tasmanian School Canteen Association Inc. 2014). This program offers ongoing support and education to school communities of government and non-government schools in the areas of canteen foods, policy, links to the curriculum, marketing and promotion, financial management and food safety and hygiene. Mandatory school canteen accreditation would be a big boost to ensuring that children are surrounded by healthy foods and messages.

Finally and most importantly, the simplest and most cost effective way of improving oral health in the Tasmanian community is to ensure all its water supplies of communities down to 500 people are fluoridated (Crocombe et al. 2014, Slade et al. 2013). International bodies such as the US-based Centers for Disease Control and Prevention (CDC), the World Health Organisation and the US Surgeon General actively promote water fluoridation. The CDC placed water fluoridation in the top ten public health achievements of the 20th Century.

I would be happy to present verbal evidence to the Joint Select Committee. Please contact me if you have any questions,

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