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

State Oral Health Plan 2016–2020

better health • better care • better value

Acknowledgement

The State Oral Health Plan 2016–2020 has been prepared by the Office of the Chief Dental Officer, Department of Health.

The Office of the Chief Dental Officer would like to extend special thanks to the State Oral Health Advisory Council as well the organisations and individuals who have participated in the development of the State Oral Health Plan. The depth and breadth of input received through consultation workshops and written submissions have been invaluable to the development of this document.

For more information on the process, groups and individuals involved, see Appendix 1–Development of the State Oral Health Plan.

Citation

The citation below should be used in reference to this publication.

WA Department of Health. State Oral Health Plan 2016–2020. Perth: Office of the Chief Dental Officer, Clinical Services and Research, Department of Health, 2016.

Use of the term Aboriginal

Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. No disrespect is intended to our Torres Strait Islander colleagues and community.

Foreword

It is with great pleasure that I present the State Oral Health Plan 2016–2020 (the Plan). As the first of its kind in Western Australia, this Plan is not just a significant achievement for WA Health, it also recognises the essential role that oral health has in our health and wellbeing.

Poor oral health affects our ability to sleep, eat and speak. It is also associated with heart and lung infections as well as chronic conditions such as cardiovascular disease, rheumatoid arthritis and diabetes.

For the first time, we now have a detailed snapshot of the state of oral health in Western Australia, which shows that for most of us, there have been steady improvements over recent decades, particularly with initiatives such as fluoridated drinking water, free or subsidised dental care for eligible Western Australians, along with greater community awareness of the importance of good oral hygiene.

The Plan also examines areas that require more attention, and provides options to better target our existing resources to those members of our community who need our extra support.

The Plan is more than a road map to improve our oral health: it is a comprehensive document designed to guide policy makers, service providers, health workers and other stakeholders to identify and build opportunities to work together to improve the oral health outcomes of all Western Australians.

Thank you to all who participated and contributed to the development of the State Oral Health Plan 2016–2020.

Yours faithfully,

Hon John Day
MINISTER FOR HEALTH;
CULTURE AND THE ARTS

Message from the Director General

The Office of the Chief Dental Officer is a new division within the Western Australian Department of Health, which was created in response to the growing body of evidence linking poor oral health with a range of other health conditions.

The *State Oral Health Plan 2016–2020* (the Plan) represents more than 12 months' work, led by Dr Soniya Nanda-Paul, Western Australia's first Chief Dental Officer, in collaboration with multiple stakeholders in the public and private dental sectors, non-government organisations, policy officers and staff.

The findings and recommendations contained within the Plan will help guide us for many years to come, and ensure we can find opportunities to work together to improve the oral health of our communities.

On behalf of WA Health, I thank all contributors to this important initiative.

Yours faithfully,

Dr D J Russell-Weisz
DIRECTOR GENERAL
DEPARTMENT OF HEALTH

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Executive Summary

The *State Oral Health Plan 2016–2020* (the Plan) is designed to improve oral health outcomes for Western Australians, by providing a detailed analysis of those initiatives where we perform well, and developing appropriate strategies to target the areas that require further support.

The evidence linking our oral health to our general health is significant. At an individual level, a healthy mouth enables us to eat, speak and socialise without pain, discomfort or embarrassment. At the community level, by improving our oral health, we target the highest reason for acute preventable hospitalisations in Western Australia, with more than 9,500 people hospitalised each year.

While there have been improvements in our overall oral health over recent decades, there are strong variations across different population groups. People with additional and or specialised health care needs or those living in regional and remote areas find it more difficult to access oral health care, while Aboriginal people and adults who are socially disadvantaged or on low incomes have more than double the rate of poor oral health than their counterparts.

The recommendations contained within the Plan are the result of detailed work by leading clinicians, policy makers, peak consumer groups and non-government organisations. It describes a series of guiding principles which underpin Western Australia's oral health system and provides targeted strategies in six Foundation Areas and across four Priority Populations.

Action across the six **Foundation Areas** will provide a sound basis for improving oral health for the majority of Western Australians. These Foundation Areas are:

- **Oral health promotion:** Many aspects of oral disease are preventable and there are a range of effective oral health promotion strategies that can be implemented to reduce the occurrence and impact of oral disease. A coordinated and collaborative approach using multiple strategies is the most effective way forward.
- **Accessible oral health services:** The ability to obtain oral health care when needed is central to the performance of the oral health system. Guidelines for access to oral health care are outlined in the Plan.
- **System alignment and integration:** Western Australia's oral health system is a complex interaction of public, private and non-government organisations. Services are funded by a mix of governments, non-government organisations and individuals. Alignment and integration of the oral and general health systems will improve effectiveness and health outcomes.
- **Safety and quality:** Oral health services in Western Australia are of a high quality; however, there are opportunities to improve the safety and quality of the system. The Plan argues for stronger engagement of consumers in the development of performance standards and the collaborative monitoring of outcomes.

- **Workforce development:** Fundamental to implementing the Plan is a workforce that has the capacity to meet the community's needs for prevention and treatment of poor oral health, both now and into the future. Workforce planning analysis identifies a relative maldistribution of the workforce and indicates that the projected workforce supply to 2025 will exceed demand. The focus must now be on utilising workforce capacity to effectively address distribution issues.
- **Research and evaluation:** A structured and coordinated research and evaluation program is required to inform the development of appropriate, effective and sustainable oral health services.

The **Priority Populations** are those groups that experience the greatest burden of poor oral health and the most significant barriers in accessing oral health care. Although these populations will be supported through the actions in the Foundation Areas, additional strategies are required to address the inequalities experienced by the following Priority Populations:

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

The State Oral Health Plan represents more than a way to improve oral health; it highlights that through a focus on oral health, broader health benefits to the population can be realised, as well as cost savings. To succeed, it will require all sectors to work together to protect and improve the oral health of Western Australians.

State Goals

Improve oral health status by reducing the incidence, prevalence and effects of oral disease

Reduce inequalities in oral health status across the Western Australian population

Guiding Principles

- **Population health approach**
- **Proportionate universalism**
- **Accessible and appropriate services**
- **Integrated oral health and general health**

Foundation Areas

Oral health promotion	Accessible oral health services	Systems alignment and integration	Safety and quality	Workforce development	Research and evaluation
Western Australians have access to oral health promoting environments and appropriate evidence-based information and programs that support them to make informed decisions about their oral health	Western Australians have access to appropriate oral health care in a clinically appropriate timeframe and setting	Social, health and education systems work together to support the translation of the State Oral Health Plan into practice.	Oral health services in Western Australia are provided in accordance with the Australian Safety and Quality Goals for Health Care	The workforce for oral health in Western Australia is of an appropriate composition and size and is appropriately trained and distributed	Appropriate and timely data is available at both the Western Australian population and service level for planning, monitoring and evaluation

Priority Populations

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

Improve oral health outcomes and reduce the impact of poor oral health across the life course for priority populations

Introduction

Oral health is an important part of general health, with evidence showing clear links to a number of other diseases such as diabetes and cardiovascular disease.[1] Good oral health enables people to participate in essential activities of daily life without pain, discomfort or embarrassment.

The oral health of Western Australians has improved over the past 30–40 years,[2] which can be attributed to a number of factors including access to fluoridated drinking water and a universal dental service for school aged children.

In more recent years, increased collaboration between the Commonwealth and State Governments as well as the strengthening of partnerships between the State Government, private sector and non-government organisations has also improved access to services.

Whilst these improvements are significant, we can do more for those in our community who experience poor oral health, such as the socially disadvantaged, those on low incomes, Aboriginal people, those living in regional and remote areas and people with additional and/or specialised health care needs.[3, 4]

All Western Australians should have access to appropriate and affordable oral health care when and where they need it. The inaugural *State Oral Health Plan 2016–2020* (the Plan) outlines a blueprint for united action across private and non-government sectors, government and consumers - in particular, six Foundation Areas and across four Priority Populations.

The Plan details the improvements required for an optimal and efficient system, but makes no recommendations in respect of funding arrangements. Services may be funded by other parties, such as the Commonwealth or private sector, and delivered via public, non-government or private organisations.

Most importantly, the Plan is the result of collaboration between representatives of a number of key stakeholder groups, whose input and special expertise has ensured that this document is comprehensive and detailed in its scope, observations, findings and recommendations (Appendix 1).

As we continue our work to implement the Plan, we must build on these important collaborations in policy and practical settings to ensure we achieve the best outcomes for all Western Australians.

Policy Context

This Plan complements and aligns with the following national and state strategies and frameworks:

National Context

- Australia's Future Health Workforce - Oral Health reports 2014[5]
- Australian Dietary Guidelines 2013[6]
- Australian Infant Feeding Guidelines[7]
- Healthy, Safe and Thriving National Strategic Framework for Child and Youth Health[8]
- National Aboriginal and Torres Strait Islander Health Plan 2013–2023[9]
- National Antenatal Care Guidelines 2010[10]
- National Disability Strategy 2010–2020[11]
- National Oral Health Plan 2015–2024[12]
- National Primary Health Care Strategic Framework 2013[13]
- National Strategic Framework for Chronic Conditions[14]
- National Strategic Framework for Rural and Remote Health 2012[15]

State Context

- WA Aboriginal Health and Wellbeing Framework 2015–2030[16]
- WA Disability Health Framework 2015–2025[17]
- WA Health Consumer, Carer and Community Engagement Framework 2007 (under revision)[18]
- WA Health Promotion Strategic Framework 2017–2021 (forthcoming)[19]
- WA Health Strategic Intent 2015–2020[20]
- WA Health Workforce Strategy 2016–2020[21]
- WA Mental Health, Alcohol and other Drug Services Plan 2015–2025[22]
- WA Primary Health Care Strategy 2011[23]
- WACHS Chronic Conditions Prevention and Management Strategy 2015–2025[24]

Additionally, it is envisaged that there will be alignment between this Plan and the State Public Health Plan once it has been developed.

The National Oral Health Plan 2015–2024 is replicated in parts of the State Oral Health Plan 2016–2020. Strategies and key performance indicators have been translated into the Western Australian context.

Australian oral health data and statistics have been used where no Western Australian data exists.

Structure of the Plan

This Plan is in four parts:

Oral Health in Western Australia

This section provides a description of **'where we are now.'** It considers the determinants and state of oral health in Western Australia and provides an overview of the impact of poor oral health on the individual, the health system and society.

Strategic Direction

This section identifies **'where we want to be.'** It identifies the overarching **goals** for oral health in Western Australia and the **principles** which guide the goals and strategies in the Plan**.** The structure of Foundation Areas and Priority Populations is also introduced.

Foundation Areas

This section outlines in more detail the rationale, strategies and indicators for six Foundation Areas. Timeframes for achieving the desired outcomes are identified as short (0–2 years), medium (2–3 years) and long (3–5 years). The roles of the Executive Sponsors are found in Appendix 2.

Priority Populations

This section outlines in more detail the rationale, strategies and indicators for four Priority Populations that require actions in addition to the Foundation Area activities.

Depending on the nature of the strategy, indictors may be either output or outcome measures. It is acknowledged that a significant proportion of the indicators are under development for data source or methodology identification. Depending on the stage of development, reporting may be quantitative and/or qualitative.

Oral Health in Western Australia

What is oral health? How does it relate to general health?
What is the current state of oral health in Western Australia?

Oral Health in Western Australia

This section defines oral health and provides an overview of the determinants of oral health, the oral health status of Western Australian children and adults and the impact of poor oral health on individuals and the broader health system.

What is 'oral health'?

Oral health is an integral aspect of general health. Oral health is a standard of health of the oral and related tissues that enables an individual to eat, speak and socialise without active disease, discomfort or embarrassment and that contributes to general wellbeing. That is, oral health is more than simply the absence of disease in the oral cavity; it is a standard of oral functioning that enables comfortable participation in everyday activities.[25]

The major oral diseases that cause poor oral health are dental caries (tooth decay), periodontal disease (gum disease) and oral cancers. Oral diseases are among the most common and costly health problems experienced by Australians.[26]

Oral disease is a prevalent and chronic disease. Despite being mostly preventable, chronic diseases are the leading cause of illness, disability and death in Australia and are characterised by significant and increasing costs to society and the individual.[1]

What determines oral health?

Health, including oral health, is determined by a complex interaction of many different factors. These health determinants include social, economic, environmental, political, behavioural, biological and cultural factors.[27,28]

In addition, access to health care systems and services, the level of utilisation of dental services, levels of oral health literacy, knowledge and attitudes towards health and disease can all impact on the quality of an individual's oral health.[27, 28]

Socio-economic factors have a profound influence on oral health. Research shows a strong link between income and the risk of poor oral health. Socio-economic status affects a person's ability to access dental services and pay for preventive products.[29]

Socio-economic status can be a predictor of diet quality, tobacco use and alcohol consumption which in turn impacts on oral health as:

- consumption of food and drinks high in sugar increases the risk of tooth decay
- consumption of tobacco increases the risk of gum disease and oral cancer
- increasing levels of alcohol consumption increases the risk of oral cancer.

These are shared or common risk factors with a number of other chronic diseases such as heart disease, cancer, and stroke. It is increasingly recognised that many chronic diseases share underlying causes and risk factors and that common prevention strategies may be appropriate.

Environmental determinants refer to a range of broader factors that influence oral health including policies to support access to services or fluoridated drinking water and policies that regulate the consumption of products such as alcohol and tobacco.

Fluoride plays a crucial role in reducing tooth decay and can be delivered through a range of methods, predominately through the use of fluoridated drinking water and toothpastes.[30] Community water fluoridation is a cost-effective and equitable means of increasing exposure to the protective effects of fluoride, helping to reduce tooth decay regardless of age, individual motivation, socio-economic status or the availability of dental care.[31, 32, 33] Consequently this reduces pain, suffering and costs to individuals and government.[34]

The impact of community water fluoridation on tooth decay is supported by overwhelming scientific evidence, and recognised by the National Health and Medical Research Council, the US Centers for Disease Control and Prevention and the World Health Organization as an important public health intervention.[31,35, 36, 37]

Community water fluoridation in Western Australia is a public health measure carried out in accordance with law for the protection of public health. As such, it meets the requirements of the United Nations Educational, Scientific and Cultural Organization's (UNESCO) Universal Declaration on Bioethics and Human Rights (Article 27).[38] It is also consistent with the Report of the International Bioethics Committee of UNESCO on Consent.[39]

What is the state of oral health in Western Australia?

Although there have been substantial improvements in oral health in Western Australia over the last century, the Australian Institute of Health and Welfare's publication entitled *Australia's Health 2014* reports that almost everyone will experience an oral health problem at some time in their lives.[1] Most of these problems are preventable, which supports the preventive and enabling focus of the Plan.

Oral health of Western Australian children

The oral health of Western Australian children utilising public dental services (see Appendix 3 for further description of public dental services) has improved significantly from the mid-1970s to the mid-1990s. During this time there has been a substantial reduction in tooth decay which was most likely the result of improved access to fluoridated drinking water, the use of fluoride toothpastes, the provision of preventive oral health services and the adoption of good oral hygiene practices.[40, 41,42]

According to the National Child Dental Health Survey 2009, 51 per cent of Australian six-year old children and 45 per cent of Australian 12-year-olds experience tooth decay.[2]

Within Western Australia, 36.4 per cent of six-year old children and 31.9 per cent 12-year-olds experience tooth decay. This is the lowest prevalence in Australia.[2]

However, the burden of poor oral health is not spread evenly among the population. For example:

- Aboriginal 15-year-olds have approximately 50 per cent more tooth decay than their non-Aboriginal counterparts at the same age.[43]
- Children in the lowest socio-economic areas experience 50 to 70 per cent more decay-affected teeth than children in the most advantaged areas.[44]
- While untreated tooth decay was more prevalent in the lowest socio-economic status group, between 18 per cent and 27 per cent of the two highest socio-economic status groups also have untreated tooth decay.[44]

Oral health of Western Australian adults

One in four Western Australian adults has untreated tooth decay.[3] Priority Populations have a greater burden of oral disease. These groups include those who are socially disadvantaged or on low incomes (including incarcerated people), Aboriginal people, people living in regional and remote areas of Western Australia and people with additional and/or specialised health care needs. The rates of untreated tooth decay vary according to:

- geographic location – untreated tooth decay rates increase with remoteness
- income – untreated tooth decay rates are higher in low income households
- concession cardholder status – cardholders have higher rates of tooth loss and untreated tooth decay than non-cardholders.[3]

Approximately 12.6 per cent of Western Australian adults have moderate to severe gum disease.[3] Prevalence of gum disease increases with age and there are higher rates in people with low income. Once again, concession cardholders are more likely to report that their tooth extraction was due to gum disease.[45]

Oral cancers are aggressive neoplasms arising from the external lip, oral cavity and oropharynx.[46]

Oral cancer is more common among older age groups, men (two thirds higher than women) and Aboriginal people (three times higher than the rest of the Australian population). The risk of oral cancers is associated with lifestyle exposures such as tobacco, alcohol, excessive UV exposure and human papillomavirus infection.[47, 48]

While oral cancers represent less than three per cent of all cancer cases, given the poor survival rates and quality of life outcomes, oral cancer poses a significant disease burden.[49]

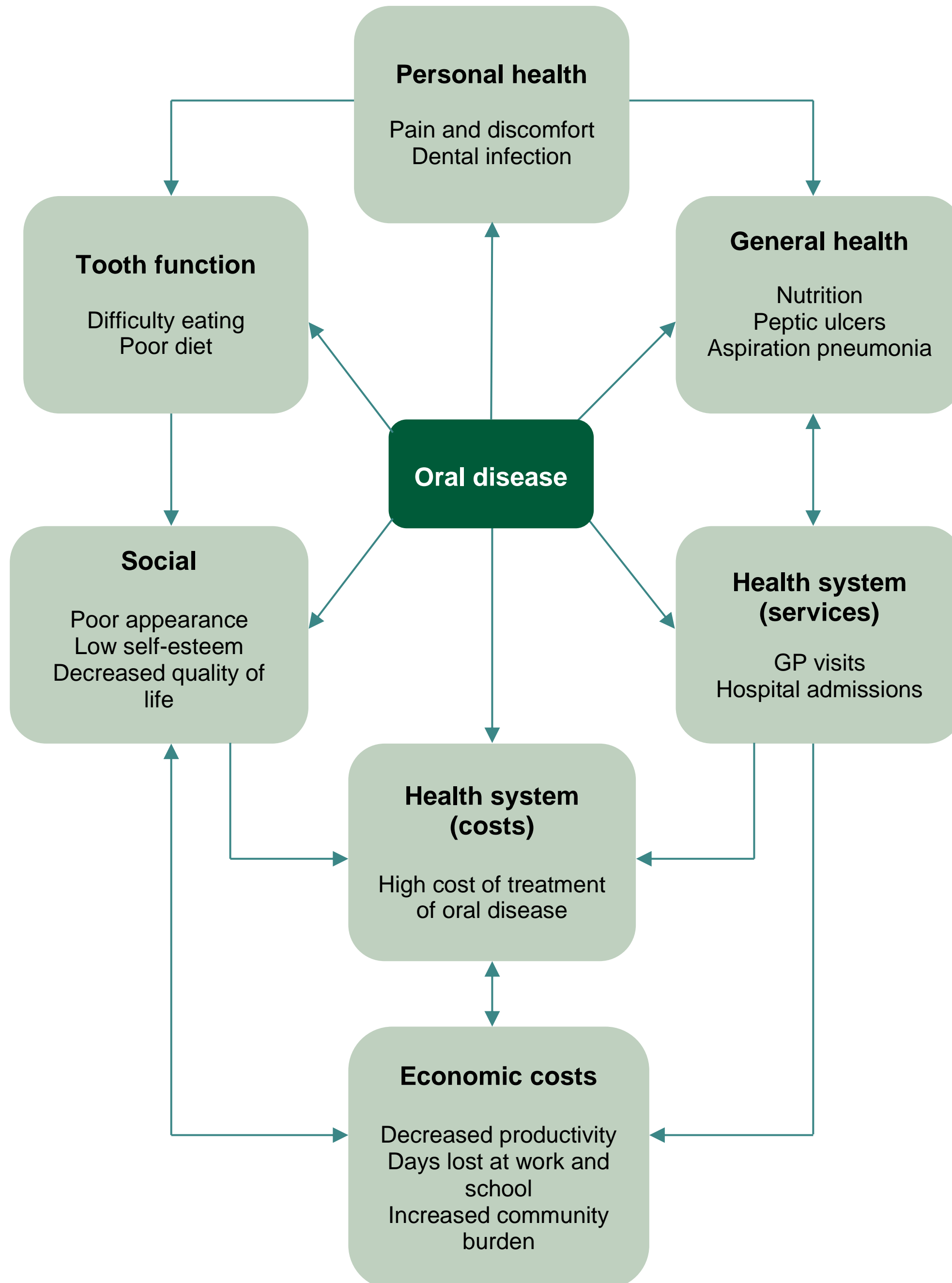
In Australia, a decline in lip, oral cavity and tongue cancers has been reported for the most recent decade; however, a rise in the incidence of oropharyngeal cancer has also been noted.[48, 50]

The mortality rate for oral cancer remains high despite a decline in incidence over the past three decades. This lack of improvement in mortality highlights the ongoing need for early detection as well as prevention.[49]

The cost of poor oral health

Poor oral health has a significant impact on individuals, the health system and society **(Figure 1).** On the individual level, poor oral health can go beyond pain, infection and tooth loss and can include destruction and degeneration of the tissues of the mouth.[51, 52, 53]

Figure 1: The impacts of oral disease[29]



In terms of overall health and wellbeing, poor oral health can affect the ability to chew and swallow, thus affecting an individual's overall nutrition.[53,54,55] Poor oral health can also disrupt speech, sleep and productivity; erode self-esteem, psychological and social wellbeing; as well as impact relationships and general quality of life.[56,57]

This can lead to restricted participation at school, the workplace and home, and result in loss of school or work hours.[51] On a societal level, this results in the loss of millions of work days each year.[58]

Poor oral health is also associated with a number of other diseases. For example, poor oral health is associated with heart and lung infections, stroke, aspiration pneumonia, low birth weight, and premature birth, although causality has yet to be proven. For those with diabetes, gum disease can affect the control of blood sugar and increase the risk of diabetic complications. Gum disease is also associated with rheumatoid arthritis.

On a health system level, there are both direct and broader costs associated with poor oral health. A lack of prevention, difficulty in accessing oral health care and delays in receiving treatment often results in serious infection, pain, and poorer long-term health outcomes. As a result, some consumers present to emergency departments and require hospital admission to manage infections. Many consumers also seek the assistance of General Practitioners (GPs) for oral health complaints or infections.

Who is paying for poor oral health?

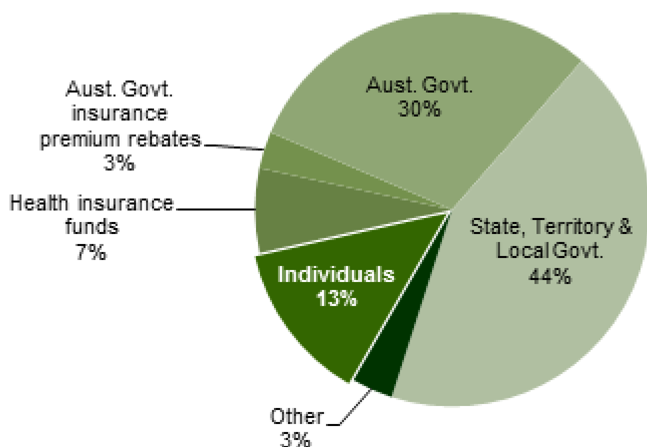
Direct costs

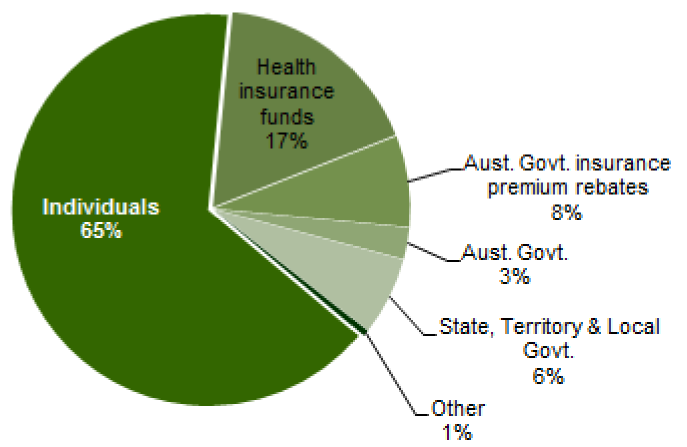
While the total level of expenditure on dental health in Western Australia has increased in recent years, expenditure has remained constant at around seven per cent of total health expenditure.[59]

Despite a significant increase in the Australian Government expenditure on dental health services in recent years, the majority of the cost of dental care continues to fall to the individual.

In 2012–2013 individuals were responsible for 65 per cent of the total cost of dental care compared to only 13.1 per cent of the cost of all other health services **(Figure 2)**.[59]

Figure 2: Total expenditure by source[59]





Broader health system costs

The impact of poor oral health can also add to the costs within the broader health system. People with poor oral health who are unable to access oral health services place increased pressure on general practices, emergency departments and hospitals. In most instances, these presentations are due to preventable oral health issues.[60]

Presentations to General Practice

In addition to seeking care at public or private dental clinics, people may also seek emergency dental care from GPs. This can be due to:

- non-classic presentation of dentofacial pain
- lack of coordinated after-hours dental care
- consumers' knowledge of the health system and understanding of condition
- consumers' perception of their GP as the primary coordinator of integrated and total care
- financial considerations.[61]

The most common treatments provided by GPs include prescriptions for pain relief medication, antibiotics and referrals to dentists. There are no estimates for oral health related costs of Pharmaceutical Benefits Scheme subsidies.

Emergency departments

International literature identifies that dental complaints account for between one per cent and four per cent of presentations to hospital emergency departments.[62] In Canada, six per cent of working poor people had presented to an emergency department for an oral health issue within the last year.[62] A 2014, Australian study reported one per cent of emergency department presentations were primarily of a dental nature of which two thirds were dental abscesses and toothache.[63]

Medical staff in general hospital emergency departments may lack oral health knowledge and relevant support. This can have unfavourable consequences such as increased care required in tertiary settings and increased use of antibiotics to manage infection and dental pain.

Potentially Preventable Hospitalisations

Potentially Preventable Hospitalisations (PPHs) are defined as:

- Acute – conditions that may not be preventable, but theoretically would not result in hospitalisation if adequate and timely care (usually non-hospital) was received.[64]
- Chronic – conditions that may be preventable through behaviour modification and lifestyle change, but they can also be managed effectively through timely care (usually non-hospital) to prevent deterioration and hospitalisation.[64]

Minimising PPHs is a National Healthcare Agreement performance indicator, relating to the availability of high quality and affordable primary and community health services.[64]

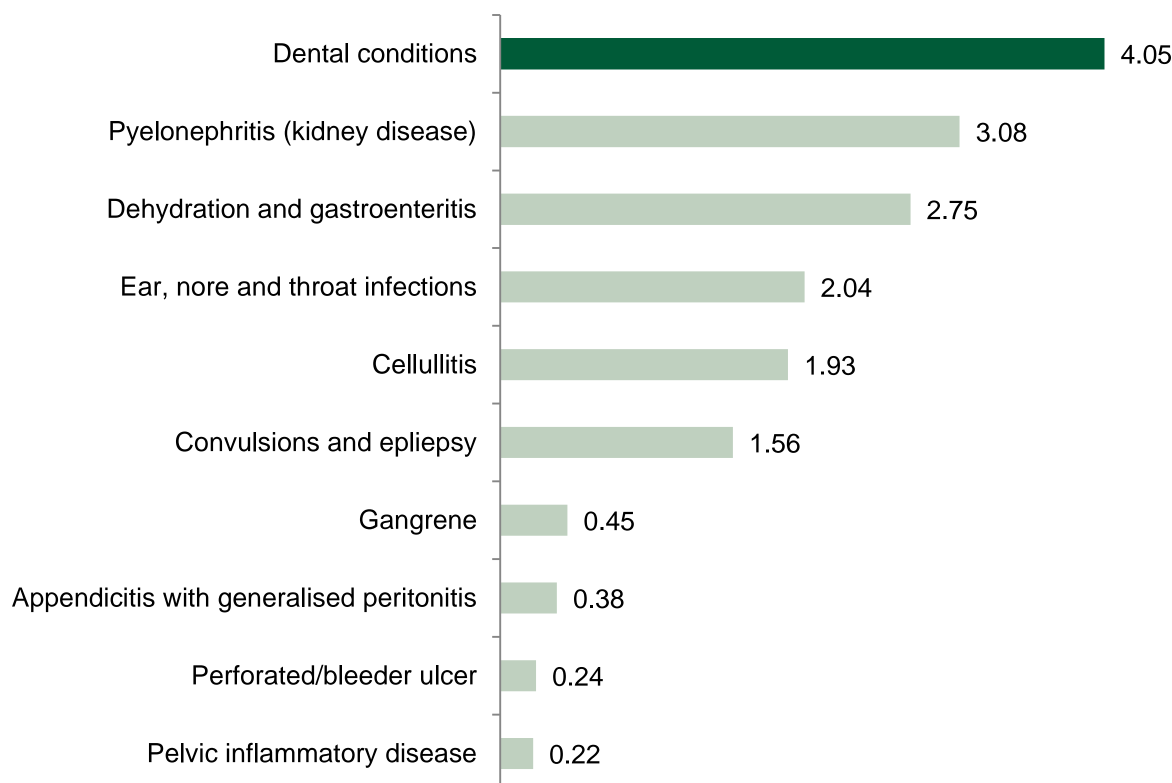
PPHs for dental conditions provide an indicator of the adequacy of oral health services in the community.[65] The rate of PPHs for dental conditions is influenced by a number of factors including:

- adequacy of preventive and primary care services
- prevalence of severe dental disease in the community
- availability and accessibility of appropriate community and hospital–based services.[64]

In 2012–2013 over 9,500 Western Australians were hospitalised for acute potentially preventable dental conditions. This makes dental conditions the highest cause of acute potentially preventable hospitalisations, and the second highest of all potentially preventable hospitalisations, second to diabetes complications **(Figure 3)**.[64]

Young children have the highest rates of preventable hospitalisations due to dental conditions. In 2012, 1,161 0–4 year-olds and 1,991 5–9 year-olds were admitted to hospital for dental conditions in Western Australia. The average length of stay was 1.2 days.[66]

Figure 3: Number of acute potentially preventable hospitalisations separations per 100,000 population[64]



Strategic Direction

The Strategic Direction outlines the goals for the next five years to reduce the prevalence, severity and impact of poor oral health and inequalities in access to oral health treatment.

Co-ordinated action will be required to improve the oral health of Western Australians. This will include action by all levels of government, the dental industry (public and private) and the broader health, education and human services sectors.

Strategic Direction

Goals

Improve oral health status by reducing the incidence, prevalence and effects of oral disease

Reduce inequalities in oral health status across the Western Australian population

The following performance indicators, reported for specific population and age groups, will provide ongoing monitoring of progress to achieve the overall State Goals:

- **Decay experience**
    - mean number of decayed, missing and filled teeth for children and adults
    - proportion of people with one or more teeth with untreated decay
- **Periodontal disease**
    - proportion of adults with moderate or severe periodontitis
- **Tooth loss**
    - proportion of adults aged 45 and over who have lost all their natural teeth
    - proportion of people aged 15 years or older with less than 21 teeth
    - mean number of missing teeth per person in those aged 15 years or older
- **Disease impact**
    - proportion of people experiencing toothache in the past 12 months
    - proportion of people who have avoided eating some foods because of problems with their teeth, mouth or dentures during the last 12 months
    - proportion of people who feeling uncomfortable with the appearance of their teeth, mouth in the past 12 months
- **Oral Cancer**
    - proportion of oral cancers diagnosed at Stage I or Stage II.

Guiding Principles

This Plan is based on four guiding principles reflecting best practice approaches.

Population health	A population health approach aims to improve the oral health of the whole population and reduce oral health inequalities across population groups through evidence-based strategies and actions. It acknowledges a wide range of systemic factors – social, economic and environmental - that influence the development and progression of oral disease.
Proportionate universalism	This approach recommends actions that are universal, but with a scale and intensity that is proportionate to the level of disadvantage. Applying the concept of proportionate universalism to oral health improvement means that a combination of universal and targeted activities is needed. Everyone should receive some support through universal interventions, while groups that are particularly vulnerable should receive additional interventions and support. This Plan therefore has Foundation Areas that are universal in nature and targeted strategies for Priority Populations that experience oral disease at disproportionately higher rates.
Accessible and appropriate services	Services, including prevention and health promotion, should be accessible to all who need them, across cultures, language groups, communities of place, services and interest, abilities, and socio-economic groups, with recognition and respect for individual needs and views.
Integrated oral health and general health	Oral health and general health are closely related and have common risks and causes. The common risk factor approach addresses risk factors common to many chronic conditions within the wider socio-environmental context.

Foundation Areas

The Foundation Areas provide the basis for the achievement of the overarching State Goals. Each Foundation Area has a defined goal supported by a series of strategies and indicators. Achievement of the Foundation Area goals will contribute to improving the oral health of the majority of Western Australians.

F1 - Oral health promotion

Goal: Western Australians have access to oral health promoting environments and appropriate evidence-based information and programs that support them to make informed decisions about their oral health.

1.1 Develop and implement a State Oral Health Promotion Plan to identify priorities and support effective and efficient intra and inter agency oral health promotion activities

1.2 Extend access to the preventative effects of fluoride

1.3 Strengthen and embed nutrition and oral health policies and practices in key settings such as early childhood, education, health services, residential aged care, and disability settings

1.4 Develop the capacity of health, community service and education staff to work with consumers to improve oral health

1.5 Strengthen the focus on oral health as an integral part of general health as well as education policies, plans and assessments

1.6 Broaden the availability of evidence-based oral health promotion programs and information to professionals and the public

F2 - Accessible oral health services

Goal: Western Australians have access to appropriate oral health care in a clinically appropriate timeframe and setting.

2.1 Adopt and monitor frequency of access guidelines as a benchmark to inform oral health service planning

2.2 Increased access to dental services for children (particularly in Priority Populations)

2.3 Develop mechanisms to enable use of existing transport arrangements to support attendance at oral health care services

2.4 Reduce the rate of potentially preventable hospitalisations due to dental conditions

2.5 Ensure access to dental surgery programs within a clinically appropriate time

F3 - Systems alignment and integration

Goal: Social, health and education systems work together to support the translation of the State Oral Health Plan into practice.

3.1 Develop evidence-based models of care and include oral health components in all relevant WA Health models of care and health pathways in the general health sector

3.2 Integrate oral health care information management systems with other health information systems

3.3 Work nationally to review oral health related consumer classifications and funding components

F4 - Safety and quality

Goal: Oral health services in Western Australia are provided in accordance with the Australian Safety and Quality Goals for Health Care.

4.1 Support the accreditation of private and public oral health services to the National Safety and Quality Health Service Standards

4.2 Involve consumers, carers and the community in the planning, design, delivery and evaluation of oral health services

4.3 Develop a credentialing policy for dental practitioners within WA Health

F5 - Workforce development

Goal: The workforce for oral health in Western Australia is of an appropriate composition and size and is appropriately trained and distributed.

5.1 Enhance skills and competencies within the oral health workforce to meet the needs of Priority Populations

5.2 Develop workforce projections to identify gaps between supply of, and need for the oral health workforce

5.3 Build more equity in the distribution of the workforce to improve accessibility to oral health care

5.4 Enhance workforce data collection and analysis to inform planning

5.5 Include oral health units of competency as core components of medical, health and community services qualifications

F6 - Research and evaluation

Goal: Appropriate and timely data is available at both the Western Australian population and service level for planning, monitoring and evaluation.

6.1 Support the full spectrum of oral health research from public health to pre-clinical and clinical research

6.2 Ensure research is used to inform planning and service delivery

6.3 Routinely collect, report and share population State and oral health and ‘access to care’ data, including for Priority Populations

Priority Populations

The Priority Populations highlight the groups that experience the most significant barriers to accessing oral health care and experience the greatest burden of oral disease. Under the principle of proportionate universalism, it is these populations that require additional targeted resources and support. Each Priority Population has a defined goal supported by a series of strategies and indicators. It should be noted that action is required across the whole life course for each of these Priority Populations.

P1 - Western Australians who are socially disadvantaged or on low incomes

Goal: Improve oral health outcomes and reduce the impact of poor oral health across the life course for Western Australians who are socially disadvantaged or on low incomes.

1.1 Investigate the disparities in uptake of State funded general and specialist dental care amongst eligible adults in order to improve access and equity

1.2 Improve the oral health literacy of Western Australians who are socially disadvantaged or on a low income and build their capacity to make healthy choices

1.3 Work nationally to review oral health funding models to reflect the additional cost of service delivery for culturally and linguistically diverse consumers

P2 - Aboriginal people in Western Australia

Goal: Improve oral health outcomes and reduce the impact of poor oral health across the life course for Aboriginal people.

2.1 Increase community engagement in the planning and delivery of oral health services

2.2 Promote the incorporation of cultural safety and competency across training, education and assessment, clinical management protocols, and guidelines

2.3 Develop integrated models of care that incorporate oral health education, prevention, and screening with other primary care services

2.4 Increase the representation and engagement of Aboriginal people in the oral health workforce

2.5 Work nationally to review oral health funding models to support flexible oral health service delivery for Aboriginal people

P3 - People living in regional and remote areas of Western Australia

Goal: Improve oral health outcomes and reduce the impact of poor oral health across the life course for Western Australians living in regional and remote areas.

3.1 Promote fluoride in alternative forms to people without access to fluoridated drinking water

3.2 Explore mechanisms to reduce the cost of oral hygiene products outside major population centres

3.3 Implement innovative service delivery models which support flexible oral health service delivery in regional and remote communities

3.4 Work nationally to ensure appropriate funding mechanisms that recognise the higher cost of delivery of oral health services in regional and remote communities

3.5 Enhance programs to recruit and retain oral health students and professionals in regional and remote areas

P4 - Western Australians with additional and/or specialised health care needs

Goal: Improve oral health outcomes and reduce the impact of poor oral health across the life course for Western Australians with additional and/or specialised health care needs.

4.1 Collect State baseline and ongoing data to more accurately identify the numbers of people with additional and/or specialised health care needs, their oral health status and treatment needs

4.2 Improve the oral health literacy of the carers and care workers of people with additional and/or specialised health care needs to incorporate oral health in their existing assessment, care planning, and care processes

4.3 Build workforce capacity and competency in the oral health sector to effectively address the needs of people with additional and/or specialised health care needs

4.4 Improve the physical access to dental treatment facilities

Foundation Areas

Action across these areas will provide the foundation for a preventively-focused, high quality, sustainable and equitable oral health system for Western Australia.

Foundation Area 1 – Oral health promotion

Goal

Western Australians have access to oral health promoting environments and appropriate evidence-based information and programs that support them to make informed decisions about their oral health.

Setting the scene

Oral health promotion encompasses a range of actions at the population level to improve the social, environmental, and economic determinants of health. It also involves action at the individual level to build people's awareness and capacity to protect and improve their own oral health.[67]

At a broad population level, community water fluoridation forms an essential part of WA's oral health strategy. In Western Australia, 92 per cent of the population currently has access to fluoridated drinking water. However, there will always be some communities that cannot access fluoridated drinking water either due to size or remoteness.[68]

There are a wide range of effective oral health promotion interventions. These include screening and individual risk assessment, oral health education and skill development, community actions, and establishment of supportive environments and settings.[68]

Professional organisations, state oral health services, the education and welfare sectors, the dental industry, the broader health sector, not-for-profit organisations, and all levels of government have roles in oral health promotion. Action therefore requires not only whole of government, but a whole of community partnership approach.[69]

What is needed?

A coordinated and collaborative approach using multiple population and individual strategies is the most effective way forward. Whilst there are many examples of successful oral health promotion programs, additional focus is still required in the following areas to make the healthier choices the easier choices for consumers, organisations and policy makers.

Develop and implement a State Oral Health Promotion Plan to identify priorities and support effective and efficient intra and inter agency oral health promotion activities

The cost and impact of poor oral health in Western Australia warrants a structured and coordinated approach to oral health promotion. The State Oral Health Promotion Plan will provide an evidence-based framework to coordinate and support effective and efficient intra and inter agency oral health promotion activities.

Extend access to the preventive effects of fluoride

At a broad population level, community water fluoridation forms an essential part of WA's oral health strategy. Community water fluoridation is a safe, cost-effective, protective strategy that improves oral health across the population.[70, 71] It is supported by the State Government with 92 per cent of the population currently receiving the benefits of fluoridation drinking water.

Given the substantial oral health disparities and inequalities in access to dental care, it is imperative that work continues to further extend the coverage of fluoridated drinking water in Western Australia. By the end of 2020, 95 per cent of the Western Australian population should have access to fluoridated drinking water.

In communities where it is impractical or cost prohibitive, it is particularly important that access is provided to fluoride in its other forms, including fluoride varnish and affordable oral hygiene products such as toothpaste.

Strengthen and embed oral health policies and practices in key settings such as early childhood, education, health services, residential aged care, and disability settings

The most cost-effective and sustainable solutions are often those that address systemic barriers to promoting good oral health and are based in the settings in which people are most familiar.

The risk factors for poor oral health exist across a variety of non-dental settings including education, aged care, childcare and community settings and services. Collaborating with these non-dental settings is an important way to integrate oral health consideration into broad care. Embedding standards or policies that support oral health into settings such as pre-schools, schools, workplaces and residential care facilities can have a direct effect on improving oral health.

Develop the capacity of health, community service and education staff to work with consumers to improve oral health

Timely, preventively focused dental care is important for good oral health. Members of the non-oral health workforce can have more regular contact with consumers than dental practitioners. These workers can contribute to improving oral health by including dental screening, oral health information, dietary advice, oral hygiene support and appropriate referral for dental care in their general health and wellbeing checks.

In 2011, the Community Services and Health Industry Skills Council developed a suite of oral health competencies to enhance the workforce skills for oral health promotion interventions with the non-oral health workforce.[72] Making this content part of the core competencies will support skill development in this sector of the workforce.

Strengthen the focus on oral health as an integral part of general health as well as education policies, plans and assessments

More broadly, the inclusion of oral health in State policies and strategies, supported by local government initiatives are required in order to achieve prevention outcomes. Examples of such policies include:

- WA Health Strategic Intent 2015–2020[20]
- WA Health Promotion Strategic Framework 2017–2021 (forthcoming)[19]
- WA Primary Health Care Strategy[23]
- WA Health Clinical Services Framework 2010–2020[73]
- WA Healthy Children Program
- Local Government Public Health Plans.

Additionally, oral health assessments should be included as a routine component of general health assessments. Examples of where this already exists include:

- Assessment by Aged Care Assessment Teams
- Acceptance for Community Home Care Packages
- Statewide Standardised Clinical Documents for mental health patients including Adult Physical Appearance and the Adult Physical Examination.

Broaden the availability of evidence-based oral health promotion programs and information to professionals and the public

Health literacy consists of the skills, knowledge, motivation and capacity to access, understand, appraise and apply information to make effective decisions about health and health care, and to take appropriate action.[74]

In 2009, a suite of 11 oral health messages was developed at a national consensus conference (Appendix 4). In 2014, WA Health developed its position statement on Fluoride use for oral health in Western Australia (Appendix 5).

These oral health messages support general health messages and should be more widely available in Western Australia on a variety of platforms including the HealthyWA website.

Access to information about service availability is also a key component of health literacy. This information should include location, eligibility and access criteria, waiting times and cost, and should be incorporated into existing and future service directories.

The common risk factor approach should be used whenever possible. As factors that cause poor oral health such as diet and smoking also have an effect on general health, a common risk factor approach is more efficient than disease specific approaches.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Endorsement of the State Oral Health Promotion Plan by the Assistant Director General, Clinical Services and Research	Data and method available	Long	Chief Dental Officer
Increase percentage of Western Australian population with access to fluoridated drinking water to 95% by the end of 2020	Data and method available	Long	Assistant Director General, Public Health
Proportion of people in non-fluoridated communities who have access to or use alternative methods of fluoride delivery (varnish).	Under development – requires methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Proportion of Community Services and Health Training Packages with oral health units as core components	Data and method available	Medium	Chief Dental Officer
Proportion of relevant public sector health, human services and education policies, plans and assessments that include oral health components	Under development – requires methodology identification	Medium	Chief Dental Officer
Proportion of relevant health promotion initiatives that promote oral health in Western Australia	Under development – requires methodology identification	Short	Chief Dental Officer
Incorporation of oral health service information into existing and future service directories	Under development – requires methodology identification	Medium	Chief Dental Officer

Foundation Area 2 – Accessible oral health services

Goal

Western Australians have access to appropriate and affordable oral health care in a clinically appropriate timeframe and setting.

Setting the scene

Access is central to the performance of the oral health system as it enables people to obtain health care when they perceive a health need. The ability to access oral health services regularly for preventive care is associated with good oral health. Conversely, episodic care, to see a dental practitioner for a problem, is associated with poorer oral health.[60, 65, 75]

There are inequalities in access to oral health services in Western Australia. This has a lasting and often severe impact on the oral and general health of consumers and population groups. The higher rate of oral disease amongst selected population groups indicates that their needs are not being addressed effectively.

In 2012–2013, nearly one in five Australians aged 15 years and over who needed to see a dental practitioner delayed or did not see one due to cost. This was more than three times the rate for delaying to see a General Practitioner.[76]

There are a range of programs and services aimed at reducing barriers for people whose circumstances can result in unfavourable visiting patterns. These programs include free or subsidised dental services, outreach services, targeted or opportunistic screening, and assessment programs. The challenge is to determine the degree to which the imbalance between service provision and service need is a function of an inadequate supply of dental services or a lack of suitability of the service for these individuals.

To better understand and improve the relationship between visiting patterns and accessibility, the following factors need to be considered at both the service provider and consumer level **(Table 1)**.

Table 1: Dimensions of accessibility[77]

Service provider dimensions	Consumer dimensions
Approachable: transparency, outreach and provision of information	**Ability to perceive a need for service:** health understanding, health beliefs, trust, and expectations
Acceptable: professional values and norms, and the culture and gender of the service provider	**Ability to seek the service needed:** personal and social values, culture and gender, and autonomy
Available: geographic location, availability of accommodation, opening hours and appointment mechanisms	**Ability to reach the service:** the living environment, available transport, and mobility and social support
Affordable: direct, indirect and opportunity costs	**Ability to pay for the service:** income, assets, social capital and health insurance
Appropriate: technical and interpersonal quality, coordination, and continuity of service provision	**Ability to engage effectively with the service:** empowerment, information and caregiver support

What is needed?

Understanding and reducing the barriers to accessing dental care will improve oral health.

Adopt and monitor frequency of access guidelines as a benchmark to inform oral health service planning

As research recognises that everyone has different oral health needs and risk levels, the timing of check-ups and oral health care should be determined through individual risk assessment. Risk assessment tools should be evidence-based. The monitoring of the frequency of access to oral health services at different life stages is an initial step to more clearly identifying and then reducing the disparity in oral health service accessibility. The National Oral Health Plan 2015–2024 has established frequency of access guidelines for oral health services **(Table 2)** to support planning services and workforce distribution.

Table 2: Frequency of access guidelines for oral health service planning

Life stage	Frequency of access guidelines for oral health service planning
Pregnancy	• At antenatal visits, women should receive an oral health risk assessment by their health care provider and referred to a dental practitioner if required.[78] • Health care providers should discuss oral health with women and provide information to maintain good oral health, such as tips to minimise the impact of nausea and vomiting on oral health, and the potential for transmission of decay causing bacteria from mother to child. • Oral health treatment can be safely provided at any time during pregnancy if the dental practitioner is informed of the pregnancy.
Infancy 0–4 years	• Children should have an oral health risk assessment by a health care provider, ideally as soon as the first teeth are present but no later than age two, and be referred to a dental practitioner as required. • All children should receive an oral health check-up and preventively focused oral health care at least every two years. • Children with greater oral health needs should be seen more frequently.
Childhood & adolescence 5–17 years	• All children should receive an oral health check-up and preventively focused oral health care at least every two years. • Children with greater oral health needs should be seen more frequently.
Adults	• All adults should receive an oral health check-up and preventively focused oral health care at least every two years. • Adults with greater oral health needs should be seen more frequently.

Older adults
65+ years
	• All older adults should receive an oral health check-up and preventively focused oral health care at least every two years.
	• An oral health risk assessment should be a routine component of general health assessments such as:
	  ○ assessment by Aged Care Assessment Teams and Psychiatric Aged Care Assessment Teams
	  ○ acceptance for Community Home Care Packages.
	• On entry to a residential care facility or hospital, an appropriate oral health care plan with dental practitioner input needs to be developed and implemented.

Increased access to dental services for children (particularly in Priority Populations)

In Western Australia, there is a gap in public dental service provision for 0–4 year olds. Children below the age of five years make up the majority of dental emergency patients at Princess Margaret Hospital Dental Clinic. Statistics from the Child Dental Health Survey 2009 indicate that 33 per cent of five-year-olds presenting to the School Dental Service had experienced dental disease, and approximately 80 per cent of these children present to the School Dental Service with untreated disease.

The Child Dental Benefit Schedule (CDBS) is a Commonwealth-funded program which aims to improve access and affordability of oral health care for children in Priority Populations. The CDBS is administered through the Medicare system and provides subsidised care for eligible children (2–17 year-olds who are recipients of selected government payments).

In Western Australia, current utilisation of the CDBS has been low, with 10 per cent of those eligible accessing the scheme, compared to almost 30 per cent nationally.

Western Australia must work to ensure that any Commonwealth and State funding is targeted to improve access to dental care for eligible children. Evaluation of utilisation patterns and service mix should be undertaken to maximise the efficiency and effectiveness of the program and to support improved provision of services to children in Priority Populations.

Develop mechanisms to enable use of existing transport arrangements to support attendance at oral health care services

A lack of affordable or accessible transport is one of the barriers for consumers accessing health services.[79]

One way to improve transport barriers is through existing programs. There is an array of emergency and routine health transport programs funded and provided by state and local governments and community or volunteer groups. More equitable access to transport programs and assistance is required for consumers with oral health needs.

Reduce the rates of potentially preventable hospitalisations due to dental conditions

As previously discussed, potentially preventable hospitalisations are conditions where hospitalisation is thought to have been avoidable if timely and adequate non-hospital care had been provided earlier. It is a National Healthcare Agreement performance indicator, relating to the availability of high quality and affordable primary and community health services.[64]

While it is recognised that some people will always require hospitalisation due to poor oral health, efforts to reduce the rates of potentially preventable hospitalisations for dental conditions will assist to reduce cost and resource burdens on the hospital system.

Ensure access to dental surgery programs within a clinically appropriate time

Consumers requiring elective surgical procedures are routinely categorised based on the timeframe in which the procedure is clinically indicated: within 30 days – Category 1, within 90 days – Category 2, within 365 days – Category 3. Public sector elective surgery waiting list data are routinely reported by specialty and service location by States and Territories.

Currently dental surgery is not routinely reported as part of elective surgery wait list data. Combined with problematic funding arrangements, this has a negative impact on timely access to dental surgery.[80]

The inclusion of dental surgery patients on Western Australian hospital waiting lists and reporting will improve data collection, monitoring and ultimately consumer outcomes.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Frequency of access guidelines for Western Australian public dental services are adopted and monitored	Data and method available	Short - Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Increased percentage of children in Western Australia accessing oral health care	Data and method available	Short	Executive Director, Mental Health, Public Health and Ambulatory Care
Proportion of Western Australian population reporting transport as a barrier to access to oral health care	Under development – requires data identification.	Medium	Chief Dental Officer
Decreased rates of potentially preventable hospitalisations due to dental conditions in Western Australia	Data and method available	Medium	Chief Dental Officer
Proportion of consumers in Western Australia receiving their dental surgery procedure within the clinically appropriate time	Under development – requires extensive data and methodology identification	Long	Executive Director, Mental Health, Public Health and Ambulatory Care
Decreased proportion of Western Australians who avoid or delay visits to dental professionals due to cost	Data and method available	Long	Executive Director, Mental Health, Public Health and Ambulatory Care

Foundation Area 3 – Systems alignment and integration

Goal

Social, health and education systems work together to support the translation of the State Oral Health Plan into practice.

Setting the scene

Western Australia's oral health system is a complex interaction of public, private and non-government organisations. Services are funded by a mix of governments, non-government organisations and individuals (Appendix 3). This complexity and lack of alignment with the wider health system can lead to fractured oral health service planning, resulting in service gaps and ultimately less than optimal outcomes for some consumers.

What is needed?

An aligned and integrated system will ensure timely access to care, particularly for those with specific oral health care needs or who experience the greatest burden of poor oral health.

Develop evidence-based models of care and include oral health components in all relevant models of care and health pathways in the general health sector

A model of care broadly describes best practice for service delivery across primary, secondary and tertiary care for a specific condition.[81]

Health pathways are currently under development by the WA Primary Health Alliance. These are web-based portals of information on referral and management pathways and help clinicians to navigate consumers through the complex primary, community, and acute health care system. They are designed to be used at the point of care by GPs.

Coordinated and consistent models of care and health pathways for oral disease will support integration between sectors and with the broader health system.

Models of care and health pathways exist for a variety of conditions relevant to oral health including pregnancy, diabetes and head and neck cancer. The inclusion of oral health components in these models of care and health pathways helps optimise consumer outcomes, improve collaboration between health professionals, and develop the understanding of the relationship between oral health and general health interaction.

Integrate oral health care information management systems with other health information systems

Effective integration of health information systems supports improved capacity to plan and deliver care, and to assess service quality, efficiency and health outcomes. Increased efforts are required to maximise linkages between existing oral health data systems and between oral health and other health data systems. These efforts will include incorporating dental data into the WA Data Collections.

Work nationally to review oral health related consumer classifications and funding components

Activity-based funding (ABF) models, which allocate funding based on the type and number of services provided, are increasingly being used to fund public hospital and health service programs.

ABF uses Diagnostic Related Groups (DRGs) to categorise consumers with similar conditions requiring similar care and resources. The existing DRGs relevant to hospital based dental procedures are limited in scope and specificity and do not adequately reflect the resources or time required to provide treatment under general anaesthetic. The result is that these services are relatively uneconomic and unattractive for a hospital to provide.

The DRG and funding models for dental services require review and refinement to better reflect the relative costs of providing care to different population groups in different settings and to better support the provision of effective evidence-based care.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Endorsed WA Health models of care for oral health	Data and method available	Medium-Long	Chief Dental Officer
Proportion of relevant WA Health models of care and health pathways which include oral health components	Data and method available	Medium-Long	Chief Dental Officer
Dental data included in WA Data Collections	Data and method available	Short	Chief Dental Officer
Oral health related DRGs reviewed and revised	Data and method available	Medium-Long	Chief Dental Officer
Applicability of loadings for oral health services reviewed	Data and method available	Medium-Long	Chief Dental Officer

Foundation Area 4 – Safety and quality

Goal

Oral health services are provided in accordance with the Australian Safety and Quality Goals for Health Care.

Setting the Scene

Safety and quality are fundamental to the provision of all health care services. In order to achieve this:

- WA public dental services are required to be accredited against the National Safety and Quality Health Service Standards Numbers 1 to 6.[82]
- Dental practitioner training programs are subject to accreditation standards overseen by the Australian Dental Council.
- Dental practitioners are required to be registered in accordance with the National Registration and Accreditation Scheme.

What is needed?

The challenge for the current oral health system is to ensure continuous improvement in the safety and quality of oral health services in Western Australia.

Support the accreditation of private and public oral health services to the National Safety and Quality Health Service Standards

Accreditation is recognised as a useful mechanism to support safety and quality improvement.[82,83]

The 10 National Safety and Quality Health Service (NSQHS) Standards, endorsed by Australian Health Ministers in 2011, provide a clear statement about the level of care consumers can expect from health service organisations. The NSQHS Standards provide a framework for implementing safety and quality improvements.

The application of the NSQHS Standards across both the public and private oral health sectors is a way to ensure consistent quality and safety standards industry wide. Public dental services are required to be accredited against NSQHS Standards 1 to 6.

The Australian Dental Association supports the development and voluntary implementation of national practice accreditation standards for private dental practice.[84] Consideration should be given to the provision of incentives and assistance consistent with what is available to general medical practice to meet practice accreditation.

Involve consumers, carers and the community in the planning, design, delivery and evaluation of oral health services

Increasingly the role of consumer, carer and community participation and engagement in service design, delivery and evaluation is becoming part of the health landscape. Research in the wider health sector has shown that consumer, carer and community engagement delivers a range of service benefits including:[85]

- increased compliance with prescribed treatments
- reduced anxiety and greater confidence in the treatments received
- improved consumer management, safety and service delivery
- more responsive and innovative programs
- cost saving through decreased utilisation.[86, 87]

The WA Health Consumer, Carer and Community Engagement Framework will be used to guide the implementation of the Plan.[18]

Develop a credentialing policy for dental practitioners within WA Health

In 2008, the Council of Australian Governments established a single National Registration and Accreditation Scheme for registered health practitioners. This is to ensure that health practitioners are suitably trained and qualified to practise in a competent and ethical manner. For dental practitioners this process is regulated by the Dental Board of Australia.

In addition, the NSQHS Standards requires all health service organisations to implement a system that determines and regularly reviews the roles, responsibilities and accountabilities of health practitioners.[82] This process is referred to as credentialing. For WA Health, this additional requirement ensures that the skill set of practitioners meets the specific job requirements of the health service or hospital.

Within WA Health, there is currently no universal credentialing policy for dental practitioners. The development of this credentialing policy is required to ensure there is a uniform system in place for health services and hospitals that provides a clear framework and meets the NSQHS Standards.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Proportion of public dental services in Western Australia accredited to the NSQHS Standards	Data and method available	Short	Chief Dental Officer
Proportion of private dental services in Western Australia accredited to the NSQHS Standards	Under development – requires data source identification	Medium	Chief Dental Officer
Proportion of public dental services in Western Australia with policies and processes supporting consumer, carer and community engagement	Data and method available	Short	Chief Dental Officer
Regularly conducted state surveys of consumer experience of public dental services	Under development – requires methodology identification	Medium	Chief Dental Officer
Endorsed credentialing policy for dental practitioners within WA Health	Data and method available.	Short	Chief Dental Officer

Foundation Area 5 – Workforce development

Goal

The workforce for oral health in Western Australia is of an appropriate composition and size and is appropriately trained and distributed

Setting the scene

Fundamental to implementing the Plan is a workforce that has the capacity to meet the community's needs for prevention and treatment of poor oral health, both now and in the future.

This will require a workforce that:

- is of an appropriate size to meet need
- utilises an appropriate mix of skills across the oral health and non-oral health workforce
- is equitably distributed across all regions and sectors
- has a strategic and planned approach to meeting changing need.

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 assistants, dental technicians and non-clinical support staff).

Prior to 2004, there was a projected shortage of the oral health workforce in Australia. Since 2004, policy and program changes have resulted in a considerable increase in undergraduate training and the number of dental practitioners.

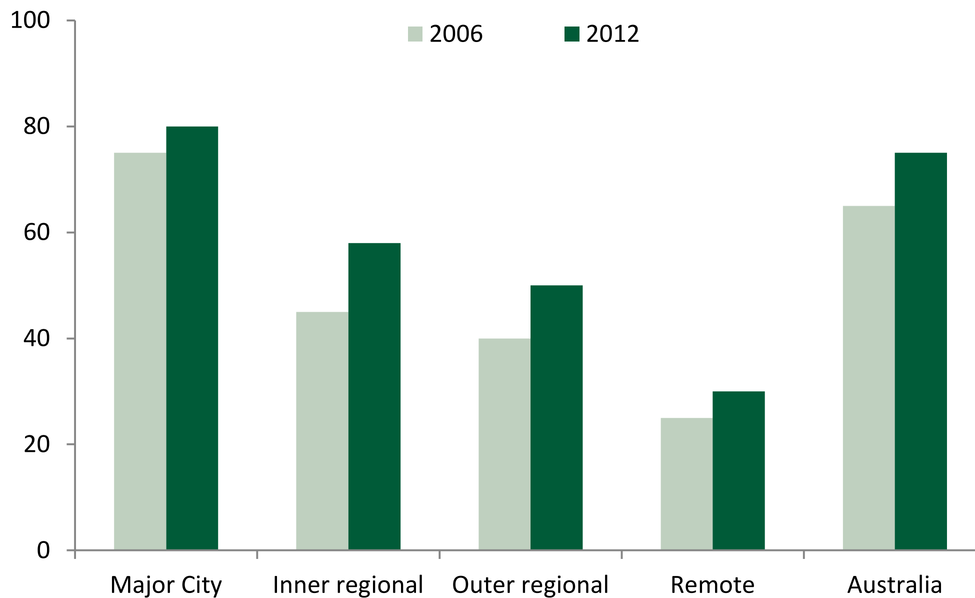
Demand for oral health services is expected to increase due to the growth and ageing of the population, increased tooth retention, consumer expectations and changing dental service provision.

Despite this anticipated growth, workforce projection analysis indicates that under a range of scenarios based on current utilisation patterns, the supply of the oral health workforce will exceed demand through to 2025.[5] This provides the opportunity to review service availability and optimise access to oral health services for Priority Populations.[5] New models of service delivery, such as the possibility of tele-health, should be investigated to optimise access and utilise the existing workforce.

The growth in practitioner numbers has increased the ratio of dental practitioners to population. However, inequitable geographic distribution of workforce remains **(Figure 4)**.

Limited data is available on the non-registered members of the oral health workforce. An appropriate supply of dental assistants and dental technicians is critical to the delivery of safe and efficient dental services.

Figure 4: Full time equivalent dental practitioners per 100,000 population[88, 89]



The Broader Health Workforce

The broader health workforce that contributes to oral health includes those who are involved in the provision of medical care, health checks, personal care services, education, health promotion strategies and referral pathways. This includes:

- Aboriginal health practitioners and health workers
- diabetes educators
- dieticians and nutritionists
- midwives
- community health nurses (child and school health)
- general practitioners
- medical specialists (including paediatricians)
- registered nurses
- speech pathologists
- other relevant health professionals
- care workers and educators in the aged care, disability and early childhood sector.

This broader health workforce can play an important role in oral health promotion, dietary advice and simple non-invasive disease prevention. In most instances, the broader health workforce will have more contact with consumers including more frequent interactions with Priority Populations. They are well positioned to integrate oral health promotion and screening activities across the age continuum.

What is needed?

An appropriately skilled and distributed workforce, effectively utilising a full range of skills in accordance with relevant legislation and regulation, is essential to address the oral health needs of Western Australians. Further training is also required to enhance skills in population oral health policy formulation, planning, implementation and evaluation in the oral and broader health workforce.

Enhance skills and competencies within the oral heath workforce to meet the needs of Priority Populations

Training and professional development for the oral health workforce must reflect the competencies required to address the needs of the Priority Populations. It is also a priority to ensure the capacity of the existing and future oral health workforce to work as part of multidisciplinary teams so that the skills of the whole oral health workforce are used efficiently and effectively to address demand.

Further development of the specialist workforce and increased competency amongst the broader workforce are required to address the needs of people with additional and/or specialised health care needs.

Develop workforce projections to identify gaps between future supply of, and need for the oral health workforce

Based on current utilisation patterns, workforce planning projections conducted by Health Workforce Australia indicate that extra capacity exists within the oral health workforce.[5]

However, research shows current utilisation and unmet need is not in equilibrium. Therefore, workforce projections (including specialist) for Western Australia need to be based not only on current utilisation but also take into consideration the high level of unmet need for dental care.

Build more equity in the distribution of the workforce to improve accessibility to oral health care

Inequalities in access to oral health care exist geographically, across the public and private sectors and in particular for workers skilled and deployed to treat the Priority Populations.

Improving the distribution and accessibility of the oral health workforce requires a more flexible utilisation of skills within the whole workforce. This will require a focus on:

- regulatory barriers to a flexible approach to workforce utilisation
- funding barriers to provide support and incentivise dental practitioners to work in areas with low access to oral health services and with Priority Populations. Geospatial modelling of oral health service accessibility will be used to guide the appropriate distribution of resources. The relationship between geographic (potential) accessibility and attendance patterns (realised accessibility) will be explored and translated into practice
- educational and training outcomes which reflect skills and competencies relevant to Priority Population needs
- identification of how new and emerging technologies can be utilised to improve accessibility for Priority Populations (e.g. tele-health)
- innovative partnership models between the public, private, and non-government sectors and regional and remote communities to create opportunities for broader service distribution.

Enhance workforce data collection and analysis to inform planning

More detailed and frequent data collection, monitoring and analysis of the oral health workforce in Australia are needed to inform workforce policies at the local, State and National level. Reliable data is a critical factor in effective workforce planning.

The recent work undertaken by Health Workforce Australia identified a number of challenges to effective workforce data collection and analysis including limited data on 'newer' workforce categories (e.g. oral health therapists), limited capacity to trace the provision of clinical services to specific dental practitioners and variable data availability across the public and private sectors.[5]

The quality of oral health workforce data collection must be improved to enable more accurate and reliable workforce projection and planning. To support effective evaluation of training programs and clinical service planning and delivery, the annual collection of workforce data is required.

Include oral health units of competency as core components of medical, health and community services qualifications

The Community Services and Health Industry Skills Council developed training packages and competency units in consultation with the vocational education sector. These support skill development for non-oral health workers, care providers and educators.

Additional promotion and integration of these units as core components of existing and new training packages, is required to increase uptake and application in the workplace.

Inclusion of oral health focused units in university programs for health professionals is necessary to increase understanding of the relationships between oral health and general health and to support integration of care and improved health outcomes.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Routine collection of Western Australia practice activity data for the oral health workforce	Under development – requires extensive data and methodology identification	Long	Chief Dental Officer
Western Australian specialist dental workforce projections completed	Data and method available	Long	Chief Dental Officer
Reduced inequity in distribution of the oral health workforce in Western Australia	Data and method available	Long	Chief Dental Officer
Proportion of continuing professional development courses in Western Australia which focus on the needs of priority populations	Data and method available	Long	Chief Dental Officer
Proportion of relevant university and vocational education sector training packages with oral health units as core components	Data and method available	Medium	Chief Dental Officer

Foundation Area 6 – Research and evaluation

Goal

Appropriate and timely oral health need and service data is available at both the Western Australian population and service level for planning, monitoring and evaluation.

Setting the Scene

One of the most fundamental requirements of an efficient and effective oral health system is the provision of the appropriate level and mix of services to meet population oral health needs and the ability to assess the impact of services and programs. This requires an evidenced based approach as well as access to quality data at both the population and service level to ensure quality planning, monitoring and evaluation.

At present, population oral health data are not routinely collected or available and service level data are inconsistent. Therefore, there is a limited ability to monitor the oral health status of Western Australians, especially amongst the Priority Populations, and to evaluate existing programs and new initiatives.

There is a lack of comprehensive, routinely collected dental service data in Western Australia. Data are collected from public dental services; however, this represents less than 30 per cent of total dental services expenditure. This affects the capacity to effectively evaluate the impact of local and national policies, programs and service models which, in turn, makes it difficult to translate research and evaluation findings into policy and improved models of care. Research approaches which utilise more complex data analysis and mapping technology provide valuable insights into service accessibility.[90]

Australian academics, researchers and clinicians have a strong history and reputation in clinical, epidemiological and population oral health research. However, less than one per cent of the National Health and Medical Research Council grant funding was allocated to dental and oral health research from 2003 to 2012.[91] This is despite oral disease being the second most costly disease group in 2008–2009, accounting for 9.7 per cent ($7.18 billion) of health expenditure in Australia (second only to cardiovascular diseases).[1]

What is needed?

A coordinated and consistent approach to research and evaluation will provide the basis for continuous improvement of oral health services and systems.

Support the full spectrum of oral health research from public health to pre-clinical and clinical research

Oral health research pertaining to public health includes the development and evaluation of oral health promotion programs, oral health models of care and access to care for Priority Populations.

Research is crucial to maintain the evidence base for oral health promotion across a range of areas. Population-based research provides both a snapshot of how the oral health of Western Australians is linked to socio-economic status and a trend analysis of oral health.

Research activities should support the development and implementation of innovative oral health models of care and emerging technologies (e.g. tele-health).

This big picture research should be complemented by more targeted research to address gaps in evidence and inform tailored programs for life stages and Priority Populations. Ensuring that Priority Population groups are appropriately represented in population level research and data collections will be critical to evaluating the effectiveness of this Plan.

Oral health research pertaining to pre-clinical and clinical research includes studies to understand the basis of disease and mechanisms to treat it. New insights into ways of treating patients and origins of disease are essential to improving outcomes for patients.

Ensure research is used to inform planning and service delivery

The planning of oral health services should involve the equitable and effective distribution of resources. Currently, the distribution of resources results in variable access, particularly for Priority Populations. Additionally, the relationship between geographic (potential accessibility) and attendance patterns (realised accessibility) is not well understood by health services. Effective geospatial modelling of service delivery should be undertaken to reduce inequities in access and service delivery.

The planning of dental services should also be based on best practice. In this regard, research into new technologies, new models of care and improvements in oral health programs should be translated into practice more consistently.

Underpinning these aims, oral health services should implement “learning health system” values. In a learning health system, the characteristics and experiences of health consumers are used to inform practices and support health policy decisions.[92]

As a learning health system is underpinned by continuous improvement, available health datasets should be continuously made available and readily utilised to allow timely analysis of data and effective implementation into policy and planning. This mechanism should involve stakeholders including healthcare organisations, research institutions and health consumer representation. Iterative learning cycles linking analysis, policy, and planning should support decision making, public health activities, consumer education and clinically relevant academic research.[92]

Routinely collect, report and share population State oral health and 'access to care' data, including for Priority Populations

The monitoring and evaluation of the oral health of Western Australians requires regular population level epidemiological examinations. There are major studies such as the National Survey of Adult Oral Health and the Child Dental Health Survey. WA Health is committed to participating in regular epidemiological studies of the oral health of adults and children. This will ensure an appropriate level of evaluation of oral health and oral health programs at the National, State and local level.

To complement these large scale epidemiological studies, ongoing funding is required for more frequent surveys examining access to care and oral health behaviours.

In addition to specific epidemiological data collections, integration of oral health components in existing health data collections and improved use of existing clinical and administrative data collections will enhance the oral health knowledge base.

The representation of the Priority Populations in existing data collections is limited due to relatively small population numbers and challenges with identification. An increased focus on ensuring representative data on Priority Populations is required to support evaluation of access and outcomes for these groups.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Proportion of oral health publications authored or led by Western Australian researchers	Under development – requires extensive data source and methodology identification	Long	Chief Dental Officer
Number of health learning cycles active within public dental services in Western Australia per year	Under development – requires methodology identification	Short	Chief Dental Officer
Priority Populations are appropriately represented in routine Western Australian oral health data collections and reports	Under development – requires methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Comprehensive oral health questions are included in existing data collections	Under development – requires methodology identification	Medium	Chief Dental Officer

Priority Populations

The following populations have higher rates and risk of poor oral health and face greater challenges in accessing oral health care.

They need additional, targeted strategies to overcome these inequalities.

Priority Population 1 – Western Australians who are socially disadvantaged or on low incomes

Goal

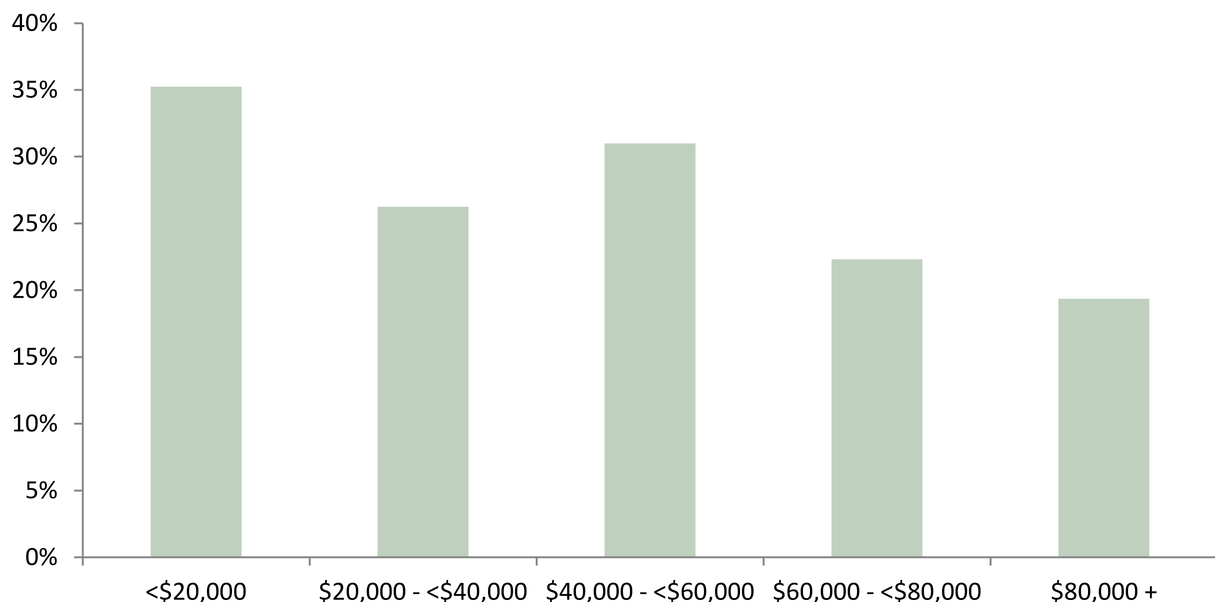
Improve oral health outcomes and reduce the impact of poor oral health across the life course for Western Australians who are socially disadvantaged or on low incomes

Traditionally, the understanding of social disadvantage was limited to those who are on low incomes and/or receiving some form of government income assistance. However, there are also other forms of disadvantage, resulting from unemployment, social isolation, incarceration, or lack of access to culturally appropriate services.

Setting the scene

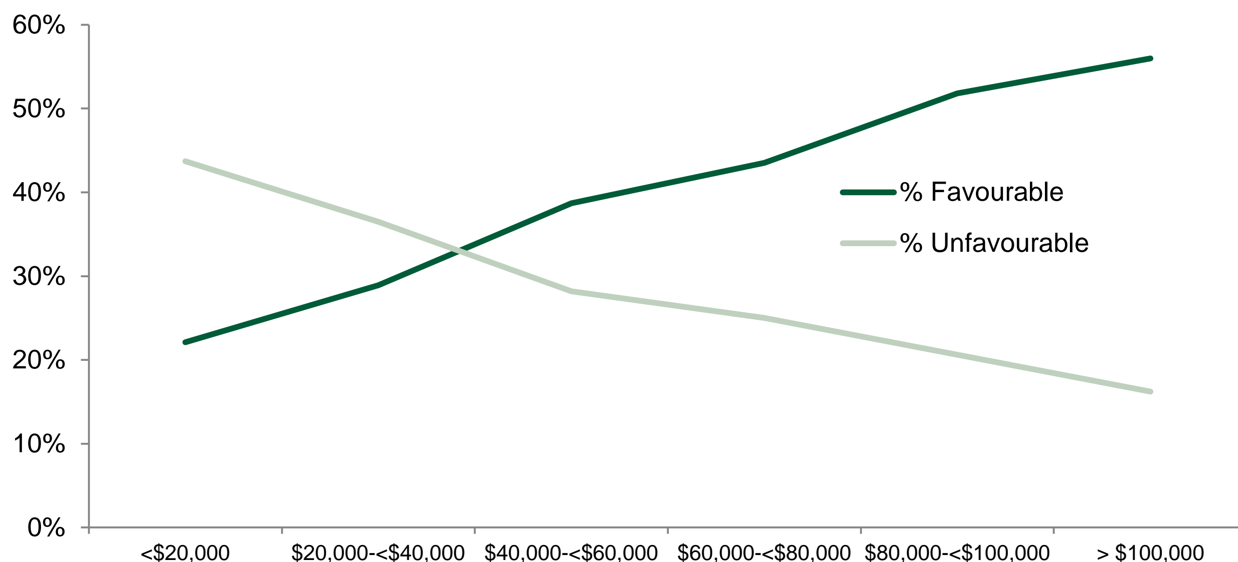
According to the Australian Bureau of Statistics, one in four people (23 per cent or 4.9 million) live in low-income households.[93] Poor oral health is strongly associated with low socio-economic status. Research has shown that adults who are socially disadvantaged or on a low income have more than double the rate of poor oral health than those on higher incomes, including higher rates of untreated decay **(Figure 5).**[94] Additionally, children from low socio-economic areas, including refugee children are 70 per cent more likely to have poor oral health than children in higher socio-economic areas.[44]

Figure 5: Proportion of adults with untreated decay by annual household income[94]



Between 1994 and 2008, the rate of check-up visits as a proportion of all dental visits rose from 46 per cent to 55 per cent, indicating an improvement in attendance patterns. However, the improvement was not uniform. People from low socio-economic areas did not experience the same gains in access to dental services and people from low income households continue to have less favourable visiting patterns than high income households **(Figure 6)**.[95,96]

Figure 6: Patterns of dental attendance by annual household income[96]



In the most disadvantaged areas, 25.1 per cent of people delayed or did not see a dental professional due to cost; more than double the rate in the least disadvantaged areas (12 per cent).[76]

Concession cardholders were significantly more likely to have avoided or delayed care due to cost (43 per cent) and report cost as an issue preventing recommended treatment (30 per cent) compared to non-cardholders (27 per cent and 19 per cent respectively).[45]

The National Economic and Social Impact Survey conducted by The Salvation Army has also found that 68 per cent of those surveyed could not afford dental treatment.[97]

Given that the overall out of pocket costs for dental care are greater than for any other major category of health spending, cost rates highly as a barrier to accessing oral health care.

Additionally, for refugee families and people from culturally and linguistically diverse backgrounds, other compounding factors affecting access include communication, transport difficulties and inconsistent use of interpreters.[98,99]

While public dental services would, in an ideal world, provide a comprehensive safety net for access to dental care, the reality is that only a small portion of the eligible population access these services and waiting times can be long.

What is needed?

To address the inequalities experienced by this Priority Population, targeted strategies are required in addition to those in the Foundation Areas.

Investigate the disparities in uptake of State funded general and specialist dental care amongst eligible adults in order to improve access and equity

Disparities exist in the uptake of public general dental services amongst eligible Western Australian adults. There is limited uptake and delivery of public specialist dental services in rural and remote areas of Western Australia. Investigation of these disparities, inequities and unmet need is required.

There is also an opportunity to consider oral health service delivery models that make use of available resources across all sectors and leverage off existing primary health care services already accessed by people who are socially disadvantaged or on low incomes.[100]

For example, better integration of mainstream refugee health services and oral health services would assist to reduce current difficulties such as interpreter use, transport, miscommunication and multiple appointments. It may also increase the understanding that poor oral health can result in poor general health.[98]

Improve the oral health literacy of Western Australians who are socially disadvantaged or on low incomes and build their capacity to make healthy choices

People who are socially disadvantaged or on low incomes have lower levels of health literacy (including oral health).[101] Health literacy enables people to understand basic health information and act in their own interest.[102]

Given the association between low health literacy and poor health outcomes, and the high prevalence of both factors among low socio-economic populations, strategies to improve health understanding are an important factor in reducing health disparities.

The provision of specific, culturally sensitive oral health information at an individual's level of literacy and the use of graphics may be effective approaches to improving oral health understanding.[103] Interpretation provided by community leaders at community education sessions and the sharing of written and video resources developed in other jurisdictions are possible cost and time effective ways of building on and strengthening existing resources within the community.

Work nationally to review oral health funding components to reflect the additional cost of service delivery for culturally and linguistically diverse consumers

One particularly vulnerable population group is people with low English proficiency, including new arrival humanitarian entrants.[104]

Appropriately credentialed interpreters are an essential part of the health care team for consumers with low English proficiency. The failure to use credentialed interpreters when required presents significant risks to consumers due to potential for misdiagnosis, misunderstanding or consumers being unable to give informed consent because they do not understand the nature and risks of the treatment. The benefits of engaging credentialed interpreters are well recognised and include improved communication, greater utilisation of services and improved clinical outcomes.[105]

Inadequate funding was identified as a significant barrier to engaging credentialed interpreters in healthcare settings.[106]

The costs associated with provision of interpreting services include:

- the remuneration of the interpreters who are engaged
- the additional time taken by a health practitioner to undertake a consultation when working as an interpreter
- the administrative costs associated with arranging interpreting services
- the infrastructure costs for equipment required for telephone/video interpreting.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Improved equity of access to public general and specialist dental care by local area	Under development – requires methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Provision of culturally sensitive oral health information in public dental services	Under development – requires data and methodology definition	Short	Executive Director, Mental Health, Public Health and Ambulatory Care
Applicability of loadings for oral health services reviewed	Data and method available	Medium-Long	Chief Dental Officer

Priority Population 2 – Aboriginal people in Western Australia

Goal

Improve oral health outcomes and reduce the impact of poor oral health across the life course for Aboriginal people in Western Australia.

Setting the scene

The health and wellbeing of Aboriginal people is everybody's business. Oral health is an important component of overall health and wellbeing. There are a proportion of Aboriginal people who have good oral health. However, on average Aboriginal people experience poor oral health earlier in their life course and in greater severity and prevalence than the rest of the population.[94] Aboriginal people are also less likely to receive treatment to prevent or address poor oral health, resulting in oral health care in the form of emergency treatment.[107] The following statistics highlight the disparity:

- many Aboriginal children experience extensive destruction of their deciduous (baby) teeth[108]
- trends indicate that the high level of dental decay in deciduous (baby) teeth is rising[108]
- Aboriginal adults aged 15 years and over, attending public dental services, experience tooth decay at three times the rate of their non-Aboriginal counterparts and are more than twice as likely to have advanced periodontal (gum) disease[107]
- Aboriginal people experience complete tooth loss at almost five times the rate of the non-Aboriginal population[94]
- Aboriginal people are 1.8 times more likely to experience toothache, twice as likely to avoid certain foods due to oral health problems, and 1.5 times more likely to report their oral health as 'fair' or 'poor'[94]
- the rate of potentially preventable dental hospitalisations for Aboriginal people is higher than other Australians.[109,110]

Accessibility of services is a key factor contributing to the current gap between the oral health of Aboriginal people and the rest of the population.

- Over 22 per cent of Aboriginal people live in inner or outer regional Western Australia and 40 per cent live in remote or very remote areas with limited local services and transport options.[111]
- More than two in five Aboriginal people over the age of 15 defer or avoid dental care due to cost. This is compared with one in eight (12.2 per cent) who delayed or did not go to a GP.[76]
- There is limited representation of Aboriginal people in the oral health workforce and many dental services are not culturally sensitive.[112,113] For example, strict appointment times and inflexibility regarding 'failure to attend' may result in a fee to the consumer. Many Aboriginal people also prefer to visit a dentist with family members and friends.

Not only do Aboriginal people have higher rates of poor oral health, they also experience cardiovascular disease, diabetes, chronic obstructive pulmonary disease, chronic kidney disease, musculoskeletal conditions and lung cancer at significantly higher rates than the rest of the population.[114] Due to the bi-directional impacts of poor general health on oral health and vice versa, it is most effective to target the risk factors that are common to general health and oral health.

Improving the overall oral health of the Aboriginal population will require more than a focus on oral health behaviours.[115] Culture, individual and community social and emotional wellbeing, history, demography, social position, economic characteristics, bio-medical factors, and the available health services within a person's community all form part of the complex causal web which determines an individual's oral health status.[116]

The recently introduced WA Aboriginal Health and Wellbeing Framework 2015–2030, the WA Health Aboriginal Workforce Strategy 2014–2024 and the Aboriginal Cultural Learning Framework will be used to guide the implementation of the State Oral Health Plan.[16,117, 118]

What is needed?

To address the inequalities experienced by this Priority Population, targeted strategies are required in addition to those in the Foundation Areas.

Increase community engagement in the planning and delivery of oral health services

All areas of the Western Australian health system need to consider and respond to the needs of Aboriginal people by being inclusive of Aboriginal needs as part of their core business.[16]

Aboriginal health goes beyond the physical wellbeing of an individual to encompass the social, emotional, and cultural wellbeing of the whole community. By recognising that Aboriginal people have a holistic view of health and wellbeing, health services need to work together to acknowledge and address the determinants of oral health in Aboriginal people.[16]

Strategies to improve the health and wellbeing of Aboriginal people need to be developed by and with Aboriginal people, community and elders, taking into account the Aboriginal definition of health and wellbeing. The active engagement of Aboriginal communities in the planning and delivery of health services through community-controlled health organisations and through greater collaboration with other health service providers will support the provision of more culturally appropriate and accessible services.[116]

In addition, health and education workers in Aboriginal communities, such as Aboriginal Health Workers, can be supported to become oral health promoters.[117]

Promote the incorporation of cultural safety and competency across training, education and assessment, clinical management protocols and guidelines

A lack of cultural safety and competency within the health workforce is a long-standing barrier in the provision of health services to Aboriginal people. Further work is required to incorporate culturally secure and respectful, non-discriminatory principles in the design of service models and associated practices, procedures, protocols and commissioning practices. Cultural safety and competency should be incorporated into oral health clinical guidelines and programs to ensure cultural awareness and competency training supports all oral health services to improve the accessibility of their practice.

Develop integrated models of care that incorporate oral health education, prevention and screening with other primary care services

Aboriginal communities vary greatly across Australia, Western Australia and from community to community. Active community participation, local decision-making, locally controlled resources, and respectful support by non-Aboriginal partners are keys to success. [118]

There is growing evidence that co-located, coordinated primary health care (including oral health) is successful in engaging Aboriginal people and providing the multi-layered support which delivers better health outcomes.[118]

There is an opportunity to consider and develop oral health service delivery models which leverage off existing primary health care services, delivered by public, not–for–profit, private and community-controlled health services that are already accessed by Aboriginal people.

Increase the representation and engagement of Aboriginal people in the oral health workforce

Building a strong, skilled Aboriginal oral health workforce is important to the health and wellbeing of Aboriginal people and the communities in which they live.[16]

The Aboriginal oral health workforce should be grown across clinical, non-clinical and leadership roles.

To increase representation, options including on the job training and assessment, training that utilises technology and promotion of Train the Trainer packages in oral health should be explored. Additionally, further support of the WA Health Aboriginal Workforce Policy is required.[119]

Increased representation of Aboriginal people amongst the oral health workforce will support the delivery of more culturally appropriate, and therefore more effective health services.[120]

Work nationally to review oral health funding models to support flexible oral health service delivery for Aboriginal people

The Independent Hospital Pricing Authority determines adjustments to reflect legitimate and unavoidable variations in the costs of delivering health care services. This includes adjustments for Aboriginal people. These adjustments are not incorporated into the current oral health funding agreements between the Commonwealth and States.

Given the inequity in oral health outcomes for Aboriginal people, consideration should be given to the inclusion of oral health in the scope of these programs.[121]

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Proportion of public and private dental services that incorporate cultural competence in clinical management protocols and guidelines	Under development – requires extensive data and methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Increased numbers of WA Health public oral health programs delivered in partnership with Aboriginal communities	Data and method available	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Proportion of public and private oral health workforce who identify as Aboriginal	Under development – requires data and methodology identification	Long	Chief Dental Officer
Applicability of loadings for oral health services reviewed	Data and method available	Medium-Long	Chief Dental Officer
Increased proportion of self-identified Aboriginal people on public dental recall waiting lists compared to the total number of Aboriginal people on the general waiting list	Data and method available	Long	Executive Director, Mental Health, Public Health and Ambulatory Care
Reduced rates of potentially preventable hospitalisation due to dental conditions for Aboriginal people	Data and method available	Long	Chief Dental Officer

Priority Population 3 – People living in regional and remote areas of Western Australia

Goal

Improve oral health outcomes and reduce the impact of poor oral health across the life course for people living in regional and remote areas.

Setting the scene

The Australian Bureau of Statistics' Australian Standard Geographical Classification Remoteness Structure allocates areas of Australia to five categories depending on their distance from urban centres. The categories are major cities, inner regional, outer regional, remote and very remote.

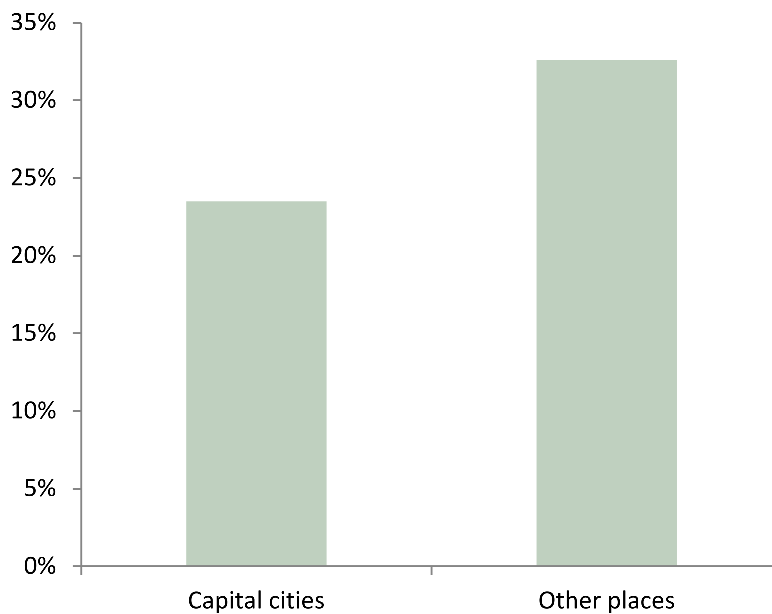
Of Western Australia's 2.53 million people, approximately 16.6 per cent live in regional areas and 6.8 per cent in remote and very remote communities.[122]

People living in regional and remote areas have poorer general as well as oral health compared to those living in major cities. Adults living in regional or remote areas are less satisfied with the oral health services they receive and are more likely to report having difficulty paying a dental bill compared with urban dwellers.[44] Adults living in regional or remote areas have higher levels of tooth loss and more untreated decay **(Figure 7)**.[94, 29]

Even after adjusting for socio-economic factors, children living in regional and remote areas have more decay than children in metropolitan areas.[1] These levels of poor oral health for adults and children are largely due to:

- fewer dental practitioners in regional and remote areas per head of population than in metropolitan areas (Figure 4)[73,123]
- higher costs of providing services in regional and remote areas
- a lack of affordable or accessible transport.[79] There is a complex mix of non-emergency health transport funders, providers and programs that lack a consistent overarching framework approach.
- reduced access to fluoridated drinking water in some regional and remote communities
- increased cost of healthy food choices and oral hygiene products (including fluoride toothpaste)
- inadequate clinical infrastructure.

Figure 7: Proportion of adults with untreated decay by location[94]



What is needed?

To address the inequalities experienced by this Priority Population, targeted strategies are required in addition to those in the Foundation Areas.

Promote fluoride in alternative forms to people without access to fluoridated drinking water

Continuing effort is required to increase access to fluoridated drinking water in regional and remote areas as outlined in Foundation Area 1 – Oral health promotion. However, where this is impractical and cost prohibitive, focused effort is required to ensure that other forms of fluoride delivery are made available, in line with Appendix 5.

Explore mechanisms to reduce the cost of oral hygiene products outside major population centres

Oral health promotion programs in regional and remote areas need to be designed to reflect the principles described in Foundation Area 1 – Oral health promotion, but also take into account the specific barriers experienced outside major population centres. Key among these barriers is the relatively higher cost of oral hygiene products.

Implement innovative service delivery models which support flexible oral health service delivery in regional and remote communities

While separate services delivered by government, non-government and private providers may target specific groups within the population, there is limited capacity to sustain multiple providers in regional and remote locations. Services can be made more sustainable and affordable when developed and managed using collaborative models that involve the public, private, and non-government sectors. Such models can incorporate aspects of resource sharing, training education and research integration, clinical governance and workforce support, and mentoring across sectors and regions.[124]

In Western Australia, fly-in-fly out models of service delivery should also be investigated as a way to overcome the challenge of specialist care in remote locations.

Work nationally to ensure appropriate funding mechanisms that recognise the higher cost of delivery of oral health services in regional and remote communities

Regional and remote oral health services are unlikely to enjoy the same economies of scale as metropolitan-based services. The availability and cost of housing, among other external factors, can have a significant effect on the ability of a region to attract and retain staff and can impact on the cost of operating services. This is particularly an issue in regions where industry and mining are growing rapidly and the cost of housing has become prohibitively high or building stock is very limited.

To achieve sustainable oral health services it is critical to support service delivery with the appropriate funding arrangements that recognise the higher costs of delivering oral health services in regional and remote Western Australia.[15]

Enhance programs to recruit and retain oral health students and professionals in regional and remote areas

Building on the strategies within Foundation Area 5 – Workforce Development, targeted programs are needed to make public and private dental practices in regional and remote areas viable and therefore more attractive and professionally satisfying to dental practitioners.

There are a range of programs funded by the Australian Government and the State to address health workforce shortages, particularly in regional and remote areas. For medical students and practitioners, these programs include bonded scholarships, tertiary education fee assistance and remote vocational training programs. In comparison, the programs available to dental practitioners are limited in scope and value. Addressing these disparities will contribute to reducing the inequitable distribution of the oral health workforce.

Due to geographic and professional isolation dental practitioners in regional and remote areas can be required to work across a broader range of their scope of practice than metropolitan based practitioners. Recognition of the skills needed for regional and remote practice and access to appropriate training is needed.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Reduction in the cost variation of oral hygiene products between metropolitan and regional and remote centres	Under development- requires methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Increased number of active partnerships delivering oral health services in rural and remote areas	Data and methods available	Short	Executive Director, Mental Health, Public Health and Ambulatory Care
Applicability of loadings for oral health services reviewed	Data and methods available	Medium-Long	Chief Dental Officer
Increased proportion of dental practitioner student placement hours in regional and remote areas	Data and methods available	Medium	Chief Dental Officer
Increased number of dental practitioner students enrolled from regional and remote areas	Data and methods available	Medium	Chief Dental Officer
Establishment of Australian Dental Council credentialed regional and remote practice training	Under development – requires data identification	Long	Chief Dental Officer
Improved equity of access to public general and specialist dental care by local area	Under development – requires methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Public general dental waiting times for eligible consumers in rural and remote areas is on par with metropolitan public general dental waiting times	Data and methods available	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care

Priority Population 4 – Western Australians with additional and/or specialised health care needs

Goal

Improve oral health outcomes and reduce the impact of poor oral health across the life course for Western Australians with additional and/or specialised health care needs.

There are specific groups in Western Australia for whom poor oral health is only one among a number of other health care issues. This includes people living with mental illness, people with physical, intellectual and developmental disabilities, people with complex medical needs, and frail older people. These groups have a higher incidence of poor oral health.

Additionally, there is a significant overlap amongst groups within this Priority Population, which may lead to even more complex oral health needs. Despite this, people with additional and/or specialised health care needs often receive a very fragmented service, resulting in less than optimal care experiences, outcomes and costs. These services are provided by private and public dental practitioners, and in many instances require specialised equipment and training as well as additional time and resources.

Being a relatively new specialty, there were only 16 registered specialists in Special Needs Dentistry in Australia in 2015, with no such specialist in Western Australia. A lack of dentists with adequate skills in Special Needs Dentistry was the most frequently reported problem for carers from family homes and community houses, followed by a lack of dentists willing to treat people with disabilities, resulting in long waiting lists. Carers from family homes and community houses were more likely to report problems in obtaining dental care than those at institutions.[125]

Setting the scene

People living with mental illness

People living with mental illness are among the most vulnerable and disadvantaged in the community. Mental illness is common in Australia, with 45 per cent of people estimated to experience a mental health condition in their lifetime.[126] Mental illness includes many disorders, such as anxiety disorders, depression, eating disorders, schizophrenia, bipolar disorder and psychoses, which can occur in people of all ages.

People living with mental illness will not always self-identify. A significant proportion of those with severe mental illness live in unstable accommodation or on the street, with a lifestyle that contributes to co-morbidities; poor mental health can contribute to higher rates of potentially preventable hospitalisation.[127]

A significant number of people living with mental illness experience multiple risk factors for poor oral health, including mouth dryness from the side effects of anti-psychotic and anti-depressant medications.

People living with a mental illness may also be at increased risk of excessive alcohol consumption, excessive caffeine consumption, drug use, and smoking. Further complicating the picture, in addition to these multiple risk factors, people living with a mental illness are not always connected to the general and oral health system.[128,129]

People living with severe mental illness are more than three times more likely to have lost all their teeth. They also have, on average, six more decayed, missing or filled teeth than people without severe mental illness.[67]

People with disabilities

In 2009, there were four million people of all ages in Australia with a disability.[130] Over half of those with a disability had two or more intellectual, psychiatric, sensory/speech, acquired brain injury or physical/diverse disabilities. Many people with a disability may not perceive the need for oral health care, or may be unable to express their need.[131] Carers may see oral health care as a lower priority or may lack time or energy for regular oral health appointments and daily oral hygiene.[131] While there is no national oral health data on people with disabilities and only very limited state-level data on specific disability groups, current indications are that people with disabilities suffer from poorer oral health than the general population.[125, 131]

As with other Priority Populations, the cost of oral health treatment was a frequently reported problem.[125] The majority of people with disabilities are on a disability support pension or welfare benefits and may not be able afford private health insurance.[131]

People with complex medical conditions

Increasing numbers of Australians have several complex and often chronic medical conditions. In 2007–2008, over seven million people in Australia had at least one chronic condition. While these conditions can arise at any age, the proportions increase with age, as do the proportions of people reporting more than one chronic condition.[1]

Management of some medical conditions requires good oral health to prevent complications that may be serious or potentially fatal. These include cancer therapy (including haematological cancers) rheumatic heart disease, and end-stage organ failure necessitating transplant (solid organ or stem cell/bone marrow).

There is a growing evidence base associating poor oral health, in particular periodontal disease, with chronic conditions including cardiovascular disease, diabetes, osteoporosis, obesity and malnutrition. People with other chronic conditions including blood-borne disease such as HIV and hepatitis C are also susceptible to increased rates of oral disease and oral complications arising from treatment of their underlying condition.[125]

Despite this, oral health care is not routinely considered by providers who coordinate care for people with complex medical conditions, potentially leading to less than optimal care experiences and outcomes.

Additionally, developmental and genetic conditions affecting the face, including the oral cavity are technically complex. These conditions need to be managed by multi-disciplinary specialists to ensure the best outcomes.

Frail older people

It is expected that by 2056 one in four people living in Australia will be over the age of 65 and 1.8 million people will be over that age of 85.[132] This includes people living in residential aged care facilities and in the community. By 2050, it is predicted that over 3.5 million older people will access aged care services each year with around 20 per cent of services delivered in residential care and 80 per cent of services delivered in the community.[133] Increasing numbers of older people are retaining their natural teeth and by 2021 only three per cent of the population will have complete tooth loss.[94]

Thus there is a growing population of older Western Australians with multiple health conditions, living in the community and residential care settings that are retaining their teeth. These people will require support in the maintenance of oral hygiene and access to affordable and timely dental care in order to maintain their oral function, and avoid unnecessary adverse impacts of poor oral health on their overall health status.

Compared to younger Western Australians, older people have higher rates of tooth decay, moderate and severe gum disease and tooth wear.[94] Older Western Australians in low income groups and residential care facilities are at higher risk for oral health problems. Residents in care facilities have a particularly high prevalence of oral health problems.[134]

While the dental needs of frail older people are not always technically complex, the associated multiple co-morbidities and poly-pharmacy issues can increase the complexity of treatment planning and management. The prevalence of dementia in older Western Australians further contributes to the need for targeted strategies in this population.

Accessibility is a particular issue for older Western Australians. This reflects transport, physical access and cost issues for those living in the community. While for those in residential care facilities, there can be limited numbers of dental practitioners who are willing or able to provide dental services and a lack of suitable facilities and equipment.

As with other Priority Populations, the cost of oral health treatment[132,135] and/or private health insurance may be an issue for people who may have significant medical and care-related expenses, as their earning capacity may be eroded by ill health.[136, 137]

What is needed?

To address the inequalities experienced by this Priority Population, targeted strategies are required in addition to those in the Foundation Areas.

Collect State baseline and ongoing data to more accurately identify the numbers of people with additional and/or specialised health care needs, their oral health status and treatment needs

There is limited information available on the numbers of frail older people, people with mental illness, disabilities and other complex medical needs and their oral health needs.

Action to correct this lack of key information is needed to support the planning of targeted oral health programs and evaluation of their effectiveness.

Improve the oral health literacy of the carers and care workers of people with additional and/or specialised health care needs to incorporate oral health in their existing assessment, care planning, and care processes

To maintain and improve the oral health of people with additional and/or specialised health care needs, a wide range of health workers, carers and care workers who interact with these people on a regular basis will need to take an active role.

A specific focus is required to develop health promotion and screening programs and clinical services that are appropriate to the communication needs of people with disabilities, their families and their carers.[137]

Across residential care facilities and community living environments, this involvement may include screening, recognition of oral health problems, care planning, support in the maintenance of oral hygiene and referral for definitive dental treatment as needed. These processes are best integrated into the existing general health assessment and care planning processes.

The ability of these workers to contribute in these roles has been demonstrated in the aged care sector,[138,139] but requires ongoing educational programs to increase their oral health literacy.[132, 133]

Build workforce capacity and competency in the oral health sector to effectively address the needs of people with additional and/or specialised health care needs

Many general dental practitioners are not confident treating people with complex medical needs and educational and support programs will be needed to increase their willingness and capacity to treat these groups.

People with very complex needs can be treated by dental specialists in Special Needs Dentistry. Western Australia does not currently have any training or specialists in Special Needs Dentistry.

In Western Australia, multidisciplinary specialist teams (including dentists) exist in child and adult tertiary care settings but need to be further embedded across other settings to support people with additional and/or specialised health care needs from an early stage.

Improve physical access to dental treatment facilities

Physical access to dental clinics and other treatment settings such as day surgeries and general tertiary hospital can be a barrier to receiving required care. A universal design approach should be applied to the planning and development of new facilities and the refurbishment of existing facilities. Universal design enables all people regardless of age or ability to use buildings, transport and services without requiring specialised features or assistance.[11]

While provision of care in a dedicated facility with access to appropriate support services is generally preferable, some people with additional and/or specialised health care needs may not be able to travel to standard dental clinics and dental treatment may be provided in homes and residential institutions. This requires the availability of dental equipment and treatment environments appropriate for non-dental settings.

It is not economically viable for most dental practitioners to purchase portable dental equipment for occasional use. The public dental sector has on occasion made this equipment available to private dentists to use in homes and care facilities. This service delivery model should be explored further in the future.

In some instances, treatment can be provided more efficiently and safely if a dedicated or shared treatment room is made available. Collaborative arrangements between the public, non-government, private and education sectors can also optimise access and utilisation of physical resources.

Building on the strategies outlined in Foundation Area 2 – Accessible oral health services, clinical service planning within WA Health must review current arrangements to ensure that people with additional and/or specialised health care needs have access to interdisciplinary teams. Additionally, clinical service planning should review the access by this group of people to day surgeries as well as general and tertiary hospital theatres within clinically appropriate times.

How will we measure success?

Indicator	Indicator status	Horizon	Executive Sponsor
Regular reporting of oral health status and treatment need for people with specialised health care needs in Western Australia	Under development – requires extensive data and methodology identification	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Establishment of a Chair of Special Needs Dentistry within the School of Dentistry (University of Western Australia)	Data and method available	Medium	Chief Dental Officer
Establishment of care planning processes involving the integration of oral health assessments into general health assessments.	Under development – requires extensive data and methodology identification	Long	Executive Director, Mental Health, Public Health and Ambulatory Care
Increased planned dental public theatre time for patients with additional and/or specialised health care needs	Data and method available	Medium	Executive Director, Mental Health, Public Health and Ambulatory Care
Applicability of loadings for oral health services reviewed	Data and method available	Medium-Long	Chief Dental Officer

Glossary

Aboriginal people: Within Western Australia, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia.

Deciduous teeth: Baby teeth, the first set of teeth in the growth development of humans.

Dental assistant: A person who provides assistance to the dentist, dental therapist, dental hygienist, oral health therapist or dental prosthetist during oral health care procedures. In most jurisdictions, dental assistants may take dental radiographs on prescription.

Dental caries: Tooth decay.

Dental hygienist: A practitioner who provides oral health assessment, diagnosis, treatment, management, and education for the prevention of oral disease to promote healthy oral behaviours to patients of all ages. Their scope may include periodontal/gum treatment, preventative services, and other oral care. Dental hygienists may only work within a structured professional relationship with a dentist. The education requirement for a graduate dental hygienist to be registered is a minimum two-year full -time or dual qualified minimum three-year full-time education program approved by the National Board.

Dental practitioner: A practitioner registered by the Dental Board of Australia: a dental hygienist, dental prosthetist, dental specialist, dental therapist, dentist or oral health therapist.

Dental prosthetist: An independent practitioner in the assessment, treatment, management and provision of removable dentures, and flexible, removable mouthguards used for sporting activities. The education requirement for a graduate dental prosthetist is a minimum two-year full-time education program approved by the National Board. Prerequisite for entry is a Diploma of Dental Technology (or equivalent). Dental prosthetists may take impressions and records required for the manufacture of various types of splints, sleep apnoea/anti-snoring devices, immediate dentures and immediate additions to existing dentures. These procedures require written referrals to and from dentists and any appliance or device manufactured under such arrangement must be planned, issued and managed by the treating dentist. Dental prosthetists educated and trained in a program of study approved by the National Board to provide treatment for patients requiring implant retained over dentures must enter into a structured professional relationship with a dentist before providing such treatment.

Dental specialist: Dentists who have undertaken additional specialised training and education and are required to have completed a minimum of two years' general dental practice to be eligible for registration as a dental specialist. The 13 dental specialist types are:

- dento-maxillofacial radiology
- endodontics
- oral and maxillofacial surgery
- oral medicine
- oral pathology
- oral surgery
- orthodontics
- paediatric dentistry
- periodontics
- prosthodontics
- public health dentistry (community dentistry)
- special needs dentistry
- forensic odontology.

Dental technician: An appropriately qualified person who engineers and manufactures fixed and removable dental prostheses and orthodontic appliances as prescribed by a dentist or prosthetist. A dental technician may own or work in a private laboratory, or work in the premises of a dentist in the private and public sectors.

Dental therapist: Practitioners who provide oral health assessment, diagnosis, treatment, management, and preventive services for children, adolescents and young adults and, if educated and trained in a program of study approved by the National Board, for adults of all ages. Their scope may include restorative/fillings treatment, tooth removal, additional oral care and oral health promotion. Dental therapists may only work within a structured professional relationship with a dentist. The education requirement for a graduate dental therapist to be registered is a minimum two-year full-time or dual-qualified minimum three-year full-time education program approved by the National Board.

Dentist: An independent practitioner who may practise all parts of dentistry within their competency and training. They provide assessment, diagnosis, and treatment as independent practitioners and for the purpose of registration may practise all parts of dentistry within their competency and training. They provide assessment, diagnosis, treatment, management, and preventive services to patients of all ages. The education requirement for a graduate dentist to be registered is a minimum four-year full-time education program approved by the National Board.

Dentistry: The assessment, prevention, diagnosis, advice and treatment of any injuries, diseases, deficiencies, deformities or lesions on the human teeth, mouth, jaws or associated structures.

Oral health therapist: Practitioners who are dual qualified as a dental therapist and dental hygienist. They provide oral health assessment, diagnosis, treatment, management and preventive services for children and adolescents and, if educated and trained in a program of study approved by the National Board, for adults of all ages. Their scope may include restorative/fillings treatment, tooth removal, oral health promotion, periodontal/gum treatment, and other oral care to promote healthy oral behaviours. Oral health therapists may only work within a structured professional relationship with a dentist. The education requirement for a graduate oral health therapist to be registered is a minimum three-year full-time bachelor degree education program approved by the National Board.

Appendix 1 – Development of the State Oral Health Plan

The Office of the Chief Dental Officer acknowledges with gratitude the many people who assisted in the preparation of the Plan and its drafts. The development of the Plan was overseen by the State Oral Health Advisory Council whose time, expertise and guidance are greatly appreciated.

The development of the endorsed Plan has included:

- review of previous plans
- stakeholder workshops
- development of the consultation draft for the State Oral Health Advisory Council
- development of consultation draft for workshop participants and other key stakeholders
- final review of the draft by the State Oral Health Advisory Council
- final draft endorsed by the Director General, Department of Health.

Stakeholder workshop participants included those from:

- public and private oral health providers
- educators and researchers
    - universities and TAFEs
    - academics
    - researchers
- peak bodies
- Department of Health representatives.

The State Oral Health Advisory Council includes:

- Australian Dental Association (WA Branch): Dr David Hallett
- Australian Dental Oral Health Therapists Association (WA): Ms Sandy O’Brien
- Australian Dental Prosthetists Association: Ms Erin Bailey
- Curtin University of Technology: Dr Russ Kendall
- Dental Health Services: Mr Sam Carrello
- Dental Hygienists Association of WA: Ms Natasha Hunt
- Department of Health: Dr Soniya Nanda-Paul
- Fiona Stanley Hospital: Dr Paul Meara
- Health Consumers Council (WA): Ms Pip Brennan
- Non-government dental sector: Dr John Owen
- North Metropolitan TAFE: Ms Veronica Surtees
- Oral Health Centre of Western Australia: Prof Camile Farah
- Princess Margaret Hospital: Dr John Winters.

Appendix 2 – Roles and Responsibilities

Assistant Director General, Public Health

The Assistant Director General, Public Health is responsible for:

- initiating, supporting and managing public health planning for the State
- the development and implementation of policies and programs to protect, promote and improve the health and wellbeing of the public of Western Australia and to reduce the incidence of preventable illness, and for related purposes
- providing advice or recommendations to the Minister for Health or to any other person or body or community generally on matters relevant to public health.

Chief Dental Officer

Western Australia's inaugural Chief Dental Officer was appointed in May 2015 and:

- is responsible for providing strategic direction and professional and clinical leadership
- is responsible for providing high level policy advice on issues and trends relating to oral health
- represents WA's interests and objectives at State and National committees relating to oral health
- oversees the development and fulfilment of strategies to meet WA public health systems oral health workforce needs in the short, medium and long term.

Executive Director, Mental Health, Public Health and Ambulatory Care

The Executive Director, Mental Health, Public Health and Ambulatory Care, North Metropolitan Health Service is responsible for a range of primary and secondary care services for the north metropolitan area as well as statewide, including:

- **Oral Health Improvement Unit –** responsible for clinical service planning in order to improve access, equity and oral health outcomes
- **Dental Health Services –** the main provider of public dental care in WA, providing free universal general dental care for children aged 5–16 years and subsidised general dental care to eligible adults (Health Care and Pensioner Concession cardholders). A further description of Dental Health Services can be found in Appendix 3.

Appendix 3 – Western Australia's oral health system

Australian Government

The various levels of government have overlapping authority for oral health services. Although the Australian Government has power to legislate for "The provision of … pharmaceutical, sickness and hospital benefits, medical and dental services", under Section 51 xxiii A of the Australian Constitution,[57] the State and Territory Governments have traditionally been responsible for oral health services. However since 2004, the Australian Government has taken increased responsibility for the funding of oral health services. Programs which have applied to Western Australia over the period 2004–2016 are shown below:

PERIOD	PROGRAM	SCOPE
2004 - 2007	Enhanced Primary Care	People with specified chronic disease impact on, or impacted by, their oral health
2007 - 2012	Medicare Chronic Disease Dental Scheme	People with GP managed chronic disease whose oral health is or is likely to impact on their general health
2008 - 2013	Medicare Teen Dental Program	Children aged 12–17 receiving Family Tax Benefit A and other income support payments
2013 - 2015	Voluntary Dental Graduate Year Program	Provide practice, experience and professional development opportunities, including in underserviced areas, to additional dentist graduates
2013 - 2015	National Partnership Agreement – Treating More Public Dental Patients	Public dental waiting lists
2013 - 2019	Dental Relocation and Infrastructure Support Scheme	Provided to encourage and support dentists to relocate to regional and remote areas. The measure will help improve dental workforce distribution and service delivery capacity in regional and remote communities
2014 – current	Child Dental Benefit Schedule	Children aged 2–17 years who are recipients of selected government payments
2015 - 2016	National Partnership Agreement – Adult Public Dental Services	Adults eligible for public dental services

State Government

The State Government, through the Western Australian Department of Health (WA Health), directly provides public dental services via:

- Dental Health Services
- Princess Margaret Hospital
- Royal Perth Hospital
- Fiona Stanley Hospital.

Additionally, WA Health has entered into a contractual agreement with:

- Oral Health Centre of WA.

Dental Health Services
Dental Health Services (DHS) is a statewide agency and the main provider of public general dental services. DHS provides:

- free emergency and general dental care to enrolled school children aged 5 to 16 years or to Year 11, whichever is first, and to children aged 0 to 4 years whose parent/guardian holds a current Health Care or Pensioner Concession Card who attend a public dental clinic

- subsidised emergency and general dental care for eligible adults (those with a Health Care or Pensioner Concession Card)

- subsidised emergency and general dental care for geographically isolated population groups

- subsidised emergency and general dental care for eligible Disability Services Commission clients.

DHS is aligned to Public Health and Ambulatory Care, North Metropolitan Health Service.

Princess Margaret Hospital
Princess Margaret Hospital Dental Clinic provides:

- emergency dental care for children with orofacial trauma, oral haemorrhage, oral infections and severe oral pain

- specialist dental care for children with medical risk and children with cleft lip and palate.

These services will transition to the new Perth Children's Hospital, when open.

Royal Perth Hospital
Royal Perth Hospital Dental Clinic provides:

- emergency and some general dental care for inpatients
- specialist dental care for inpatients and outpatients who require dental assessment or treatment to support the medical or surgical management of their condition.

Fiona Stanley Hospital
Dental Services at Fiona Stanley Hospital provides a range of tertiary-level general and specialist dental services for eligible patients, including:

- inpatients and outpatients who require dental assessment or treatment to support the medical or surgical management of their condition
- inpatients of the State Rehabilitation Service who require treatment for a painful dental condition
- special needs patients who require dental intervention under a general anaesthetic and have an ASA score of 3 or 4, who cannot be safely managed in a community or general hospital setting.

Oral Health Centre of WA
The Oral Health Centre of WA (OHCWA) is contracted by WA Health to provide general and specialist public dental care to eligible consumers (those with a Health Care or Pensioner Concession Card). This is provided within a teaching environment under the auspice of the University of Western Australia. This contract commenced on 1 January 2002 and expires on 30 June 2022.

Specialist services provided by OHCWA include:

- Endodontics
- Oral and maxillofacial surgery
- Oral Medicine
- Oral Pathology
- Oral Surgery
- Orthodontics
- Paediatric Dentistry
- Periodontics
- Prosthodontics.

Local government

There is considerable scope for local government involvement in oral health promotion, early identification of problems and early intervention, but while some local governments across Western Australia have effective programs in place, many do not. Effective local programs include training maternal and child health nurses in oral health promotion and screening, installing water fountains in parks, and provision of transport for the disadvantaged or elderly.

Private sector

The private sector provides a comprehensive range of services to adults and children, from emergency and general oral health care to more complex treatments such as orthodontic and endodontic services. The vast majority of practising dentists and services are in the private sector.

It is the only place that adults without a concession card can access oral health care, other than medical services, which provide only medically-related treatment of severe dental emergencies.

National Dental Telephone Interview Surveys indicate that over half of Australian children and two-thirds of concession card holders "attended a private dental practice for their last dental service". This reflects the fact, that funding for public services covers treatment of only about 20 per cent of card holders (the eligible group). About 30 per cent of card holders have private dental insurance and receive adequate oral health care. This leaves about half without insurance and unable to access public care, and those in this group who seek private care generally do only for pain relief, and thus receive severely compromised oral health care. The only other group that receives such a poor level of care are non-insured, non-card-holding, low income earners.

Non-government sector

Volunteer programs

Dental practitioners provide a range of pro-bono services in various geographic areas and to different social groups. Although the dental practitioners may not receive payment for these services, it is important to recognise that there are a range of costs associated with the delivery of 'free' services including equipment, consumables, travel, accommodation and the time and support of other health and community workers. Examples of formalised programs include:

- Kimberley Dental Team - www.kimberleydentalteam.com
- The National Dental Foundation - www.nationaldentalfoundation.org.au

Aboriginal Community Controlled Health Services

Dental services are provided by a number of Aboriginal Community Controlled Health Services (ACCHS). These services are provided by a mix of salaried, contracted or volunteer dental practitioners, often in collaboration with public and/or private services in the area.

The National Aboriginal Community Controlled Health Organisation has called for dental services, including dental checks, basic dental treatment, emergency treatment and oral hygiene/prevention, to be part of the core primary health care services provided by all ACCHS.

Appendix 4 – Oral health messages for the Australian public

Background

The National Oral Health Plan 2004 – 2013 noted the importance of oral health promotion in improving oral health, and stated that broad agreement was required on a consistent suite of evidence-based oral health promotion messages. In late 2009, a workshop was held to develop a national consensus on oral health messages for the public. The workshop did not address messages relating to use of fluorides explicitly as these had been the subject of a workshop in 2005.

Key messages

1. Breast milk is best for babies and is not associated with an increased risk of dental caries.
2. After six months of age, infant feeding cups rather than infant feeding bottles are preferred for drinks other than formula or breast milk. Sugary fluids should not be placed in infant feeding bottles. Comfort sucking on a bottle should be discouraged.
3. Follow the Australian Dietary Guidelines. Focus on: drinking plenty of tap water; limiting sugary foods and drinks; and choosing healthy snacks such as fruits and vegetables.
4. Brush teeth and along the gum line twice a day with a soft brush.
5. Children over 18 months of age should use appropriate fluoride toothpaste.
6. Fluoride mouth rinses can be effective in reducing decay. Speak with your oral health professional about whether fluoride mouth rinsing is appropriate for you.
7. Chewing sugar-free gum can reduce dental decay.
8. Mouthguards should be worn for all sports where there is a reasonable risk of a mouth injury. This includes football, rugby, martial arts, boxing, hockey, basketball, netball, baseball, softball, squash, soccer, BMX bike riding, skateboarding, in-line skating, trampolining, cricket (wicket keeping), water skiing and snow ski racing.
9. Children should have an oral health assessment by age two.
10. Everyone has different oral health needs and risk levels which should be reflected in the frequency of check-ups. Talk with your oral health professional about your risk level and how frequently you need to visit for an oral health check.
11. Quit smoking to improve oral and general health. You can ask your oral health professional about quitting.

Appendix 5 – WA Health Position Statement: Fluoride use for oral health in Western Australia

Background

The use of fluorides in oral health programs is one of the most effective ways of preventing dental caries. In 2012, the guidelines for the use of fluorides in Australia were reviewed by the Australian Research Centre for Population Oral Health and updated to reflect the latest reports, research and scientific papers[140].

Community water fluoridation

The National Health and Medical Research Council (NMHRC), Australia's peak health policy body, completed a review of the efficacy and safety of water fluoridation in June 2007.[31] In 2013, NHMRC reaffirmed its policy that fluoridation of drinking water remains the most effective and socially equitable means of achieving community-wide exposure to the caries [decay] prevention effects of fluoride.

1. Water fluoridation remains an effective, efficient, socially equitable and safe population approach to the prevention of dental caries in Western Australia.

   Water fluoridation forms part of a suite of caries prevention initiatives that also relate to healthy diet, good oral hygiene, appropriate use of fluoride toothpaste and regular dental check-ups.

2. Fluoridation of community drinking water supplies in WA is regulated under the *Fluoridation of Public Water Supplies Act 1966.*[141] Approximately 92% of the State's population has access to fluoridated drinking water.

3. Most domestic water filters do not affect the fluoride content of water, but some more expensive filters may do so. If in doubt, the instructions should be checked to see whether a particular filter removes or reduces the fluoride content of the water it produces.

4. Infant formula sold in Australia is safe for consumption by infants when prepared in accordance with the manufacturer's instructions on the label and reconstituted using fluoridated tap water.

Packaged water

5. Most packaged water contains very low levels of fluoride. Manufacturers should be encouraged to display clearly in the label the fluoride concentration of all packaged water.

Fluoride varnish, gel and foam

6. Fluoride varnish should only be applied by appropriately trained health workers.
7. High concentration fluoride gels and foams (those containing more than 1.5 milligrams per gram of fluoride) may be prescribed by an oral health professional for use by individuals aged 10 years or over who have a higher risk of developing tooth decay.

Fluoride supplements

8. Fluoride supplements in the form of drops or tablets to be chewed and/or swallowed are no longer available except on the prescription of an oral health professional.

Toothpaste

9. From the time that teeth first erupt (about 6 months of age) to the age of 17 months, children’s teeth should be cleaned by a responsible adult, but not with toothpaste, except on the recommendation of an oral health professional.
10. For children aged 18 months to 5 years (inclusive), the teeth should be cleaned by a responsible adult twice a day with low fluoride children’s toothpaste, except where standard adult fluoride toothpaste has been recommended by an oral health professional. Toothpaste should always be used under supervision of a responsible adult. A small pea-sized amount should be applied to a child-sized soft toothbrush and children should be taught to spit out, not swallow toothpaste or rinse with water.
11. For children aged six years of more, the teeth should be cleaned at least twice a day with standard adult fluoride toothpaste, which should be spat out, not swallowed or rinsed with water.

Fluoride mouth rinses

12. Fluoride mouth rinses may be used under guidance from an oral health professional by people aged six years or more who have an elevated risk of developing caries. After rinsing, mouth rinse should be spat out, not swallowed.
13. Fluoride mouth rinses are not a substitute for brushing with fluoride toothpaste.

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Notes

Notes

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