



Australian Government

Healthy Mouths Healthy Lives

AUSTRALIA'S NATIONAL ORAL HEALTH PLAN 2015 - 2024



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Healthy Mouths Healthy Lives



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Australia's National Oral Health Plan 2015-2024

Healthy Mouths, Healthy Lives: Australia's National Oral Health Plan 2015–2024 has been prepared by the Oral Health Monitoring Group, a subcommittee of the Community Care and Population Health Principal Committee which reports through the Australian Health Ministers' Advisory Council to the COAG Health Council.

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The Oral Health Monitoring Group also acknowledges, with gratitude, the many people who assisted in the preparation of the National Oral Health Plan and its drafts.

For more on the process, groups and individuals involved, see

Appendix 1 – Development of the National Oral Health Plan.

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Copies can be obtained from
South Australian Dental Service
180 Flinders St
Adelaide SA 5000

GPO Box 864
Adelaide SA 5000

Tel 08 8222 2222

Fax 08 8222 9075

sadental@sa.gov.au

www.sadental.sa.gov.au

Enquiries about the copy of the plan should be directed to Dr Geoff Franklin, Executive Director, SA Dental Service at the above address.

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Executive Summary

The goal of Healthy Mouths, Healthy Lives: Australia’s National Oral Health Plan 2015–2024 is to improve health and wellbeing across the Australian population by improving oral health status and reducing the burden of poor oral health.

Oral health is fundamental to overall health, wellbeing and quality of life. A healthy mouth enables people to eat, speak and socialise without pain, discomfort or embarrassment.

Despite improvements over the last 20-30 years, there is still evidence of poor oral health among Australians.

- More than 90% of adults and 40% of young children have experienced tooth decay at some stage in their life.
- Three out of ten adults have untreated tooth decay.
- Only four out of every ten Australian adults (39%) have a favourable visiting pattern, i.e. seeing a dentist once a year for a check-up, rather than waiting to treat poor oral health.
- Aboriginal and Torres Strait Islander people and adults who are socially disadvantaged or on low incomes have more than double the rate of poor oral health than their counterparts.
- People with additional or specialised health care needs or those living in regional and remote areas find it more difficult to access oral health care.

Oral conditions are the third highest reason for acute preventable hospital admissions in Australia with more than 63,000 Australians hospitalised each year. Many of these people require dental treatment under general anaesthetic including young children with high levels of dental disease, and adults with complex medical conditions.

Where expenditure can be allocated to specific disease groups, spending on oral health ranked second highest after cardiovascular disease. Unlike other health services, the cost of oral health falls largely to the individual. In 2011-2012, individuals were responsible for 57% of the total cost of dental care compared with only 12% of the cost of all other health services.

In 2012–13, nearly one in five (18.8%) 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 (5.8%).

The National Oral Health Plan aims to set the national direction and provide a framework for collaborative action in oral health over the next 10 years.

Preparation of the National Oral Health Plan has been the work of expert groups and individuals including leading clinicians, policy makers, peak consumer bodies, members of non-government organisations and other health organisations.

The National Oral Health Plan outlines guiding principles that will underpin Australia's oral health system and provides national strategic direction including 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 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. Fluoride plays a crucial role in reducing tooth decay. Community water fluoridation is a cost-effective and equitable initiative that is supported by overwhelming scientific evidence and recognised as one of the most important public health interventions.
- **Access:** 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 National Oral Health Plan.
- **Systems alignment and integration:** 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. National leadership is required to guide and inform the development, implementation and evaluation of oral health policy and programs, and to oversee the integration of oral health and general health programs across sectors, jurisdictions and delivery settings.
- **Safety and quality:** Oral health services in Australia are of a high quality, however there are opportunities to improve the safety and quality of the system. The National Oral Health Plan argues for stronger engagement of consumers in the development of performance standards and the collaborative monitoring of outcomes.
- **Workforce:** Fundamental to implementing the National Oral Health 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. Since 2004, policy and program changes have resulted in a considerable increase in undergraduate training and the number of dental practitioners. Workforce planning analysis identifies a relative mal-distribution 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 development of a national oral health research strategy and a commitment to regular collection of population-level oral health data is essential.

The **Priority Populations** are those groups that experience the greatest burden of poor oral health and the most significant barriers to accessing oral health care.

Although these groups will be supported through action in the Foundation Areas, additional strategies are required to address the inequalities experienced by these Priority Populations:

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

The National Oral Health Plan represents more than a way to improve oral health. It demonstrates that through a focus on oral health we can deliver broader health benefits to the population, as well as cost savings.

Translation of the National Oral Health Plan into practice will require all jurisdictions and sectors to work together to protect and improve the oral health of Australians.

NATIONAL GOALS

Improve oral health status by reducing the incidence, prevalence and effects of oral disease
Reduce inequalities in oral health status across the Australian population

GUIDING PRINCIPLES

Population health approach

Proportionate universalism

Appropriate and accessible services

Integrated oral and general health

FOUNDATION AREAS

Oral health promotion

All 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

Accessible oral health services

All Australians have access to appropriate oral health care in a clinically acceptable timeframe

System alignment and integration

Social, health and education systems work together to support healthy mouths and healthy lives

Safety and quality

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

Workforce development

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

Research and evaluation

Appropriate and timely data is available at both the population and service level for planning, monitoring and evaluation

PRIORITY POPULATIONS

People who are socially disadvantaged or on low incomes

Aboriginal and Torres Strait Islander peoples

People living in regional and remote areas

People with additional and/or specialised health care needs

Introduction

Oral health is an important part of general health, affecting not only the individual, but also the broader health system and economy. Where expenditure can be allocated to specific disease groups, spending on oral health ranked second highest after cardiovascular disease.¹

More than 63,000 Australians are hospitalised each year for preventable dental conditions; the third highest reason for acute preventable hospital admissions in Australia.² Many of these people require dental treatment under general anaesthetic including young children with high levels of dental disease, and adults with complex medical conditions.

Despite improvements in oral health over the last 20–30 years, four out of ten young children (42%), and two out of three older children (64%) have experienced tooth decay; a prevalence five times higher than asthma for these age groups.³ Twenty-five per cent of adults have untreated tooth decay⁴ with higher rates experienced by Aboriginal and Torres Strait Islander people, regional and remote residents and Australians on lower incomes.⁵

Australia's National Oral Health Plan 2014–2024 outlines a blueprint for united action across jurisdictions and sectors to ensure all Australians have healthy mouths.

Oral health is fundamental to overall health, wellbeing and quality of life. A healthy mouth enables people to eat, speak and socialise without pain, discomfort or embarrassment.⁶

This statement, adapted from the UK Department of Health opened the first National Oral Health Plan and with oral health issues among the most common health problem experienced by Australians, it remains the foundation for this, Australia's second National Oral Health Plan.

Progress since the last Plan

The first National Oral Health Plan (2004–2013) built a strong platform to begin to address the inequalities in oral health outcomes experienced by different populations.

During the period of the first National Oral Health Plan, Australia has seen:

- An increased percentage of the Australian population with access to optimal levels of fluoridated water (69.1% in 2003 to 82.2% in 2012)⁷
- Publication of consensus statements on the use of fluorides⁸
- Publication of a suite of nationally consistent oral health messages⁹

- Establishment of the Oral Health Promotion Clearing House¹⁰
- A National Adult Oral Health Survey completed⁵ and a National Child Oral Health Survey commenced
- Increased collaboration between oral health promotion campaigns and health conditions that share common risk factors, such as the *Rethink sugary drink* campaign¹¹ and the inclusion of oral cancer images on cigarette packages¹²
- The development of a nationally consistent approach to dental assessments in the Aged Care Assessment Team processes through the Better Oral Health in Residential Aged Care Training Project¹³
- An increase in the number of dental practitioners
- Increased Australian Government engagement and investment in oral health including but not limited to, the Chronic Disease Dental Scheme 2007–2012, the National Partnership Agreement on Treating More Public Dental Patients 2013–2015, and the Child Dental Benefits Schedule, which began in 2014. See Appendix 2 for a full list of programs.

The next 10 years (2015 – 2024)

Many Australians still face considerable personal, financial and organisational barriers in accessing dental services and the next 10 years must be focused on addressing these barriers to improve the oral health of all Australians.

The National Oral Health Plan outlines guiding principles that will underpin Australia's oral health system and provides national strategic direction, including targeted strategies in six Foundation Areas and across four Priority Populations.

Translation of the National Oral Health Plan into practice will require all jurisdictions and sectors to work together to protect and improve the oral health of Australians.

Due to the importance of a collaborative approach, the National Oral Health Plan was developed through consultation with Commonwealth, state and territory governments, representatives of the oral health workforce (public, private and non-government sectors), consumer groups, academics, dental practitioner students as well as other health professionals and stakeholders. See Appendix 1 - Development of the National Oral Health Plan for more information.

Structure of the National Oral Health Plan

The National Oral Health Plan is in four parts:

- **Oral Health in Australia**
This section provides a description of **'where we are now'**. It looks at the determinants and state of oral health in Australia, and provides an overview of the impact of poor oral health on the individual, the health system and society.
- **National Strategic Direction**
This section identifies **'where we want to be'** – the overarching **goals** for oral health in Australia and the **principles** which guide the **strategies** in the National Oral Health 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 (1-3 years), medium (4-6 years) and long (7-10 years).
- **Priority Populations**
This section outlines in more detail the rationale, strategies and indicators for four Priority Populations that require action in addition to the Foundation Area activities.



ORAL HEALTH IN AUSTRALIA

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

Oral health in Australia

This section defines oral health and provides an overview of the determinants of oral health, the oral health status of 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.¹⁴

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.⁶

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.^{15,16}

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.^{15,17}

Socio-economic factors have a profound influence on oral health with research showing 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.¹⁸ Socio-economic status is also linked with levels of sugar, tobacco and alcohol consumption which in turn impacts on oral health as:

- consumption of high levels of 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 can be appropriate.

Environmental factors refer to a range of broader factors that influence oral health including policies to support access to services, the consumption of products such as alcohol and tobacco, or those that support or restrict access to water fluoridation.

Fluoride plays a crucial role in reducing tooth decay and can be delivered through a range of methods, predominantly through the use of fluoridated water and toothpastes. Community water fluoridation is a cost-effective and equitable means of increasing exposure to the protective effects of fluoride, thereby reducing tooth decay across the population, and subsequently reducing pain, suffering and costs to individuals and government.¹⁹ The impact of community water fluoridation on tooth decay is supported by overwhelming scientific evidence, and recognised by health and professional organisations as one of the most important public health interventions.^{20,21}

A range of biological determinants can affect oral health, including the shape, number and vulnerability of teeth to external influences e.g. exposure to the human papillomavirus increases the risk of oral cancer. Other genetic conditions also impact on oral health, such as cleft lip and palate.

What is the state of Australia's oral health?

Although there have been substantial improvements in oral health in Australia over the last century, the Australian Institute of Health and Welfare's publication *Australia's Health 2012* reports that almost everyone will experience an oral health problem at some time in their lives.²² Most of these are preventable which supports the preventive and enabling focus of the National Oral Health Plan.

Oral health of Australian children

The oral health of Australian children using public dental services improved significantly from the mid-1970s to the mid-1990s (Figure 1). During this time there was a substantial reduction in tooth decay which is 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 health hygiene practices.²³⁻²⁵

However, since the mid-1990s, the rate of tooth decay among children has increased in some states and territories.²⁶ The factors implicated in this increase include increased consumption of sugary food and drinks and the increased consumption of non-fluoridated bottled water.²⁷ The National Child Oral Health Survey that will be completed in 2015 will provide contemporary national data as to whether these slight increases have been sustained and are occurring nationally.

According to the Child Dental Health Survey 2009, 51% of six-year old children and 45% of 12-year-olds experience tooth decay.²⁸

This burden of poor oral health is not spread evenly among the population:

- Aboriginal and Torres Strait Islander 15-year-olds have 50% more tooth decay than the rest of the population²⁹
- Children in the lowest socio-economic areas experience 50% to 70% more decay-affected teeth than children in the most advantaged areas³⁰
- While untreated decay was more prevalent in the lowest socioeconomic status (SES) group, between 18% - 27% of the two highest SES groups also had untreated tooth decay³⁰

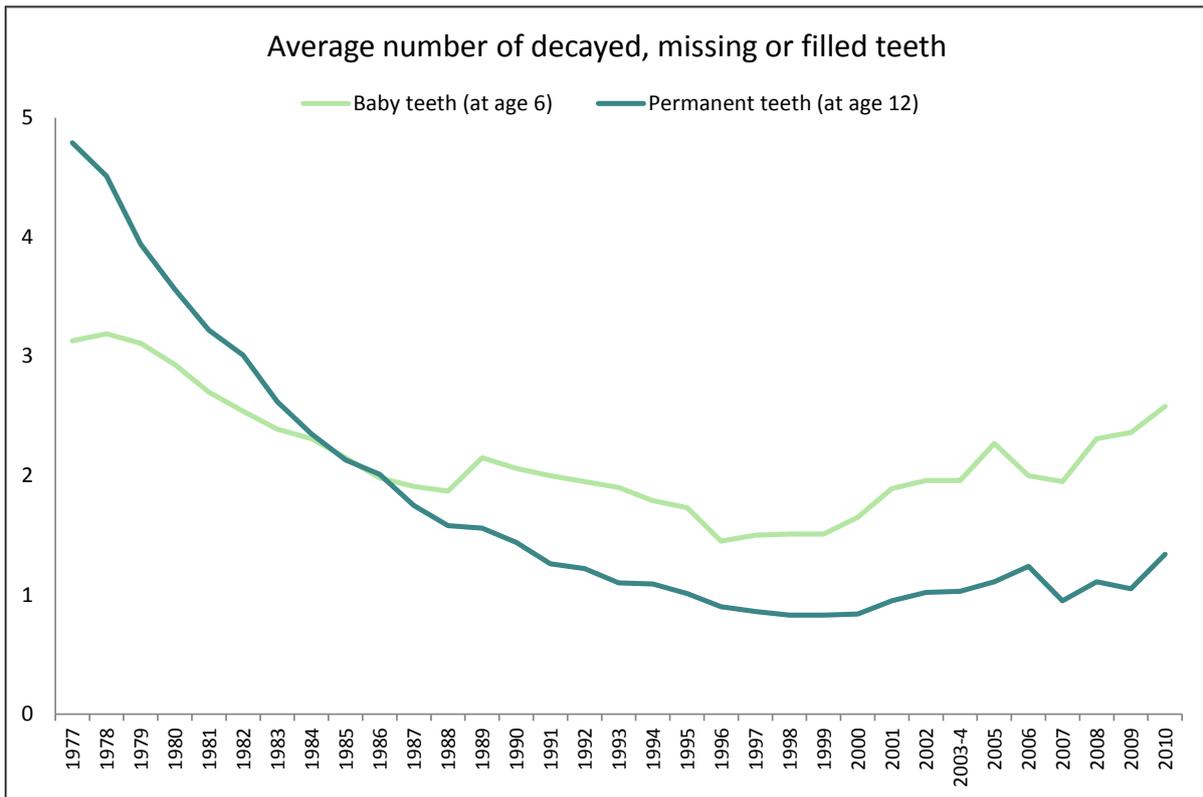


Figure 1: Average number of decayed, missing or filled teeth²⁶

Note: 1977-1988: data are from the Australian School Dental Scheme Evaluation. From 1989 data are from the Child Dental Health Survey.

Data not available for New South Wales for 2001-2006 and 2008-2010 and for Victoria from 2005.

Oral health of Australian adults

Around three in ten Australian adults have untreated tooth decay.³¹ The rates of untreated tooth decay vary according to:

- Geographic location, with untreated decay rates increasing with remoteness
- Income, with untreated decay rates higher in low income households
- Concession card holder status – cardholders have higher rates of tooth loss and untreated decay than non-cardholders^{5,31}

Approximately 23% of Australian adults have moderate to severe periodontal (gum) disease.⁵ The prevalence of periodontal disease increases with age and there are higher rates in people with low income. Periodontal disease is the reason for tooth extraction in 16.5% of people aged 45-64 and 20% of people over the age of 65. Once again concession cardholders are more likely to report that their tooth extraction was due to periodontal disease.³²

Oral cancer, which may affect lips, tongue, salivary glands, gums, mouth, or throat, is the eighth most common cancer in Australia.^{33,34} In 2009, there were 3,123 new cases and 763 oral cancer deaths in Australia.³⁴ Oral cancer is more common among older age groups, men (two-thirds higher than women) and Aboriginal and Torres Strait Islander people (three times higher than the rest of the Australian population). The risk of oral cancer is associated with lifestyle exposures such as tobacco, alcohol and human papillomavirus infection.^{34,35}

Oral health of Priority Populations

The Priority Populations identified in this Plan continue to experience poor oral health at higher rates than other sectors of the population. Table 1 below summarises a few elements that are expanded in their respective sections of the National Oral Health Plan.

<p>Priority Population 1 – People who are socially disadvantaged or on low incomes</p> <p>See page 50</p>	<ul style="list-style-type: none"> • Children from low socio-economic areas are 70% more likely to have poor oral health than children in higher socio-economic areas³⁰ • Adults who are socially disadvantaged or on low incomes have more than double the rate of poor oral health than those on higher incomes³¹
<p>Priority Population 2 – Aboriginal and Torres Strait Islander people</p> <p>See page 55</p>	<ul style="list-style-type: none"> • Aboriginal and Torres Strait Islander people experience poor oral health earlier in their lifespan and in greater severity and prevalence than the rest of the population⁵ • Aboriginal and Torres Strait Islander people are also less likely to receive treatment to prevent or address poor oral health, resulting in oral health care which often takes place in the form of emergency treatment⁵
<p>Priority Population 3 – People living in regional and remote areas</p> <p>See page 59</p>	<ul style="list-style-type: none"> • Even after adjusting for socio-economic factors, children living in regional and remote areas have more tooth decay than children in metropolitan areas^{28,36} • Adults living in regional or remote areas have higher levels of tooth loss and more untreated tooth decay¹⁷
<p>Priority Population 4 – People with additional or specialised health care needs</p> <p>See page 63</p>	<ul style="list-style-type: none"> • People living with severe mental illness are more than three times more likely to have lost all their teeth³⁷ • The incidence of gum disease for frail older people is two to three times higher than the general population⁵

Table 1: Oral health of Priority Populations

The cost of poor oral health

Poor oral health has a significant impact on individuals, the health system and society (Figure 2). 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.^{33,38,39}

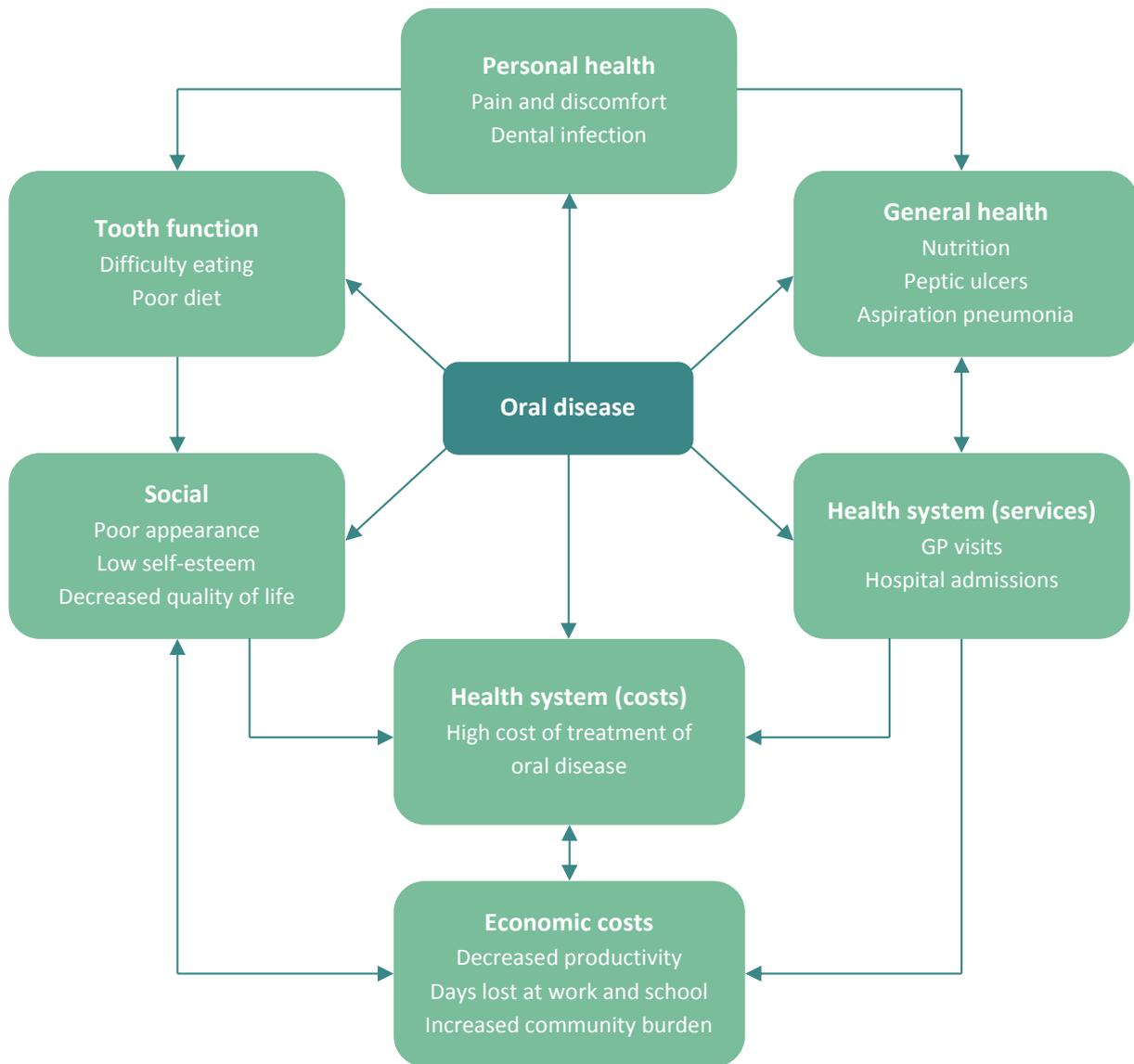


Figure 2: The impacts of oral disease⁴⁰

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.^{38,39,41} Poor oral health can also disrupt speech, sleep and productivity, erode self-esteem, psychological and social wellbeing, and impact relationships and general quality of life.^{42,43}

This can lead to restricted participation at school, the workplace and home, and result in loss of school or work hours.³³ On a societal level, this results in the loss of millions of work days each year.⁴⁴

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 proved. 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 leads to 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 increased over the period of the first Plan from \$5.1 billion in 2004-05 to \$8.3 billion in 2011-12, expenditure as a proportion of total health expenditure remained consistent at around 6% (Figure 3).⁴⁵

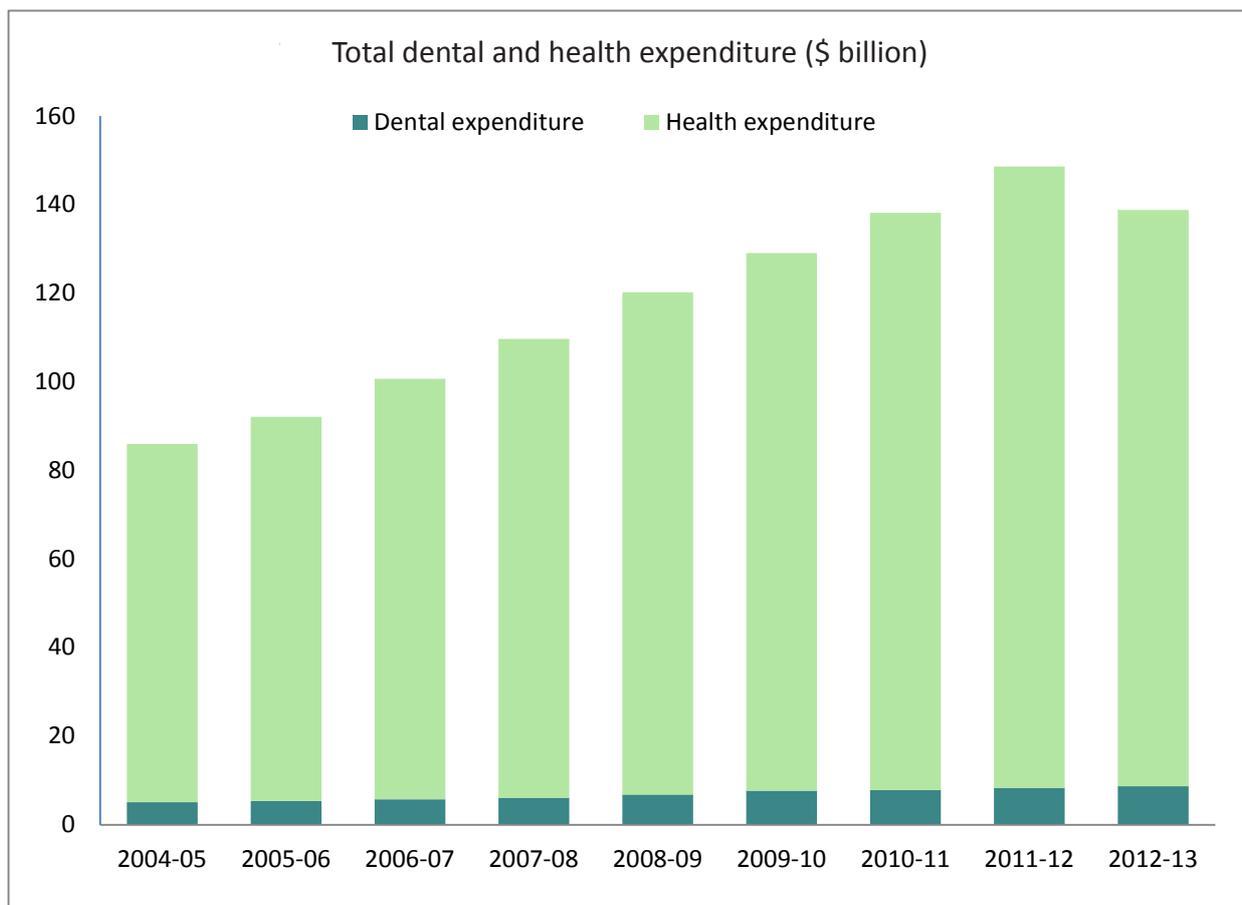


Figure 3: Total Dental and health expenditure^{22,45}

(Expenditure for 2001-02 to 2011-12 is expressed in terms of 2011-12 prices)

Despite a significant increase in Australian Government expenditure on dental health services during the period of the first National Oral Health Plan, the majority of the cost of dental care (\$4.7 billion) continues to fall to the individual (Figure 4).

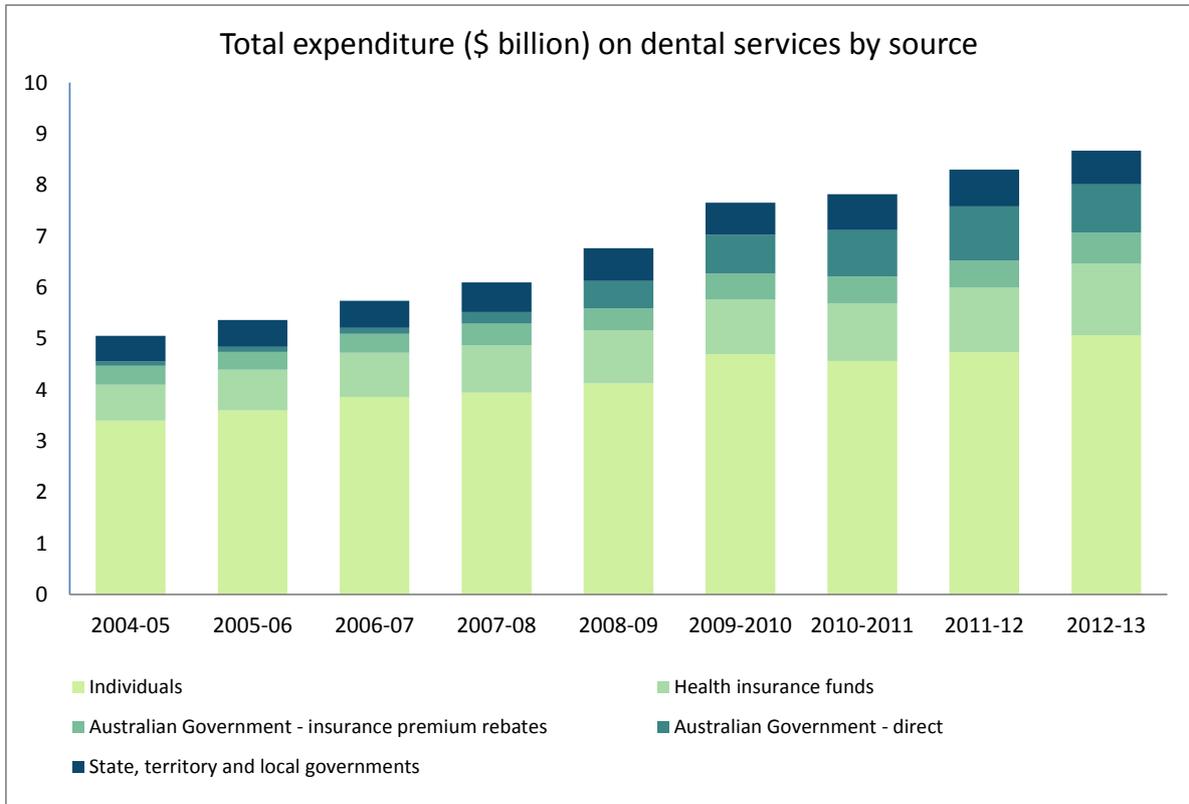


Figure 4: Total expenditure on dental services by source^{31,46}

(Expenditure for 2001–02 to 2011–12 is expressed in terms of 2011–12 prices)

In 2011-12, individuals were responsible for 57% of the total cost of dental care compared with only 12% of the cost of all other health services (Figure 5).⁴⁶

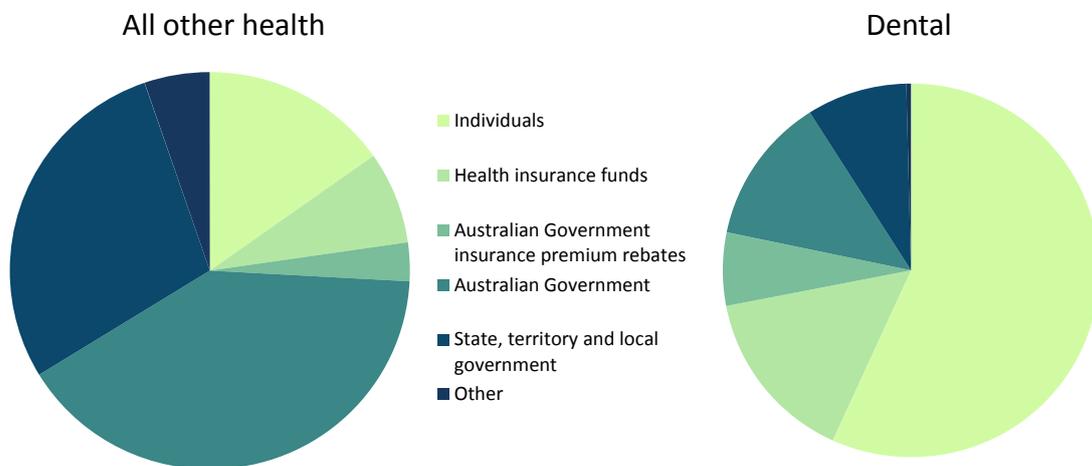


Figure 5: Total expenditure by source⁴⁶

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.⁴⁷ American research also indicates that the care provided in general practice and emergency department settings may not be definitive and can be suboptimal and costly.^{48,49} A local study found that treatment knowledge and confidence of Australian emergency department doctors in managing dental emergencies varied between good and needing improvement, depending on education and seniority.⁵⁰

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
- patient knowledge of health system and understanding of condition
- patients' perception of their GP as the primary coordinator of integrated and total care
- financial considerations.⁵¹

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 (PBS) subsidies.⁴⁷

Emergency departments

International literature identifies that dental complaints account for between 1% and 4% of presentations to hospital emergency departments.⁵² In Canada, 6% of working poor people had presented to an emergency department for an oral health issue within the last year.⁵³ An Australian study reported 1% of emergency department presentations were primarily of a dental nature of which two thirds were dental abscesses and toothache.⁵⁴

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

- 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.²

Minimising PPHs is a National Healthcare Agreement performance indicator, relating to the availability of high quality and affordable primary and community health services.²

PPHs for oral health conditions provide an indicator of the adequacy of oral health services in the community.³¹ The rate of PPH for oral 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.²

In 2012-13, over 63,000 Australians were hospitalised for acute potentially preventable dental conditions. This makes dental conditions the third highest cause of acute potentially preventable hospitalisations (Figure 6).

Young children have the highest rates of preventable hospitalisations due to dental conditions. In 2011-2012, 7,791 0-4 year olds and 13,503 5-9 year olds were admitted to hospital for dental conditions.²⁶

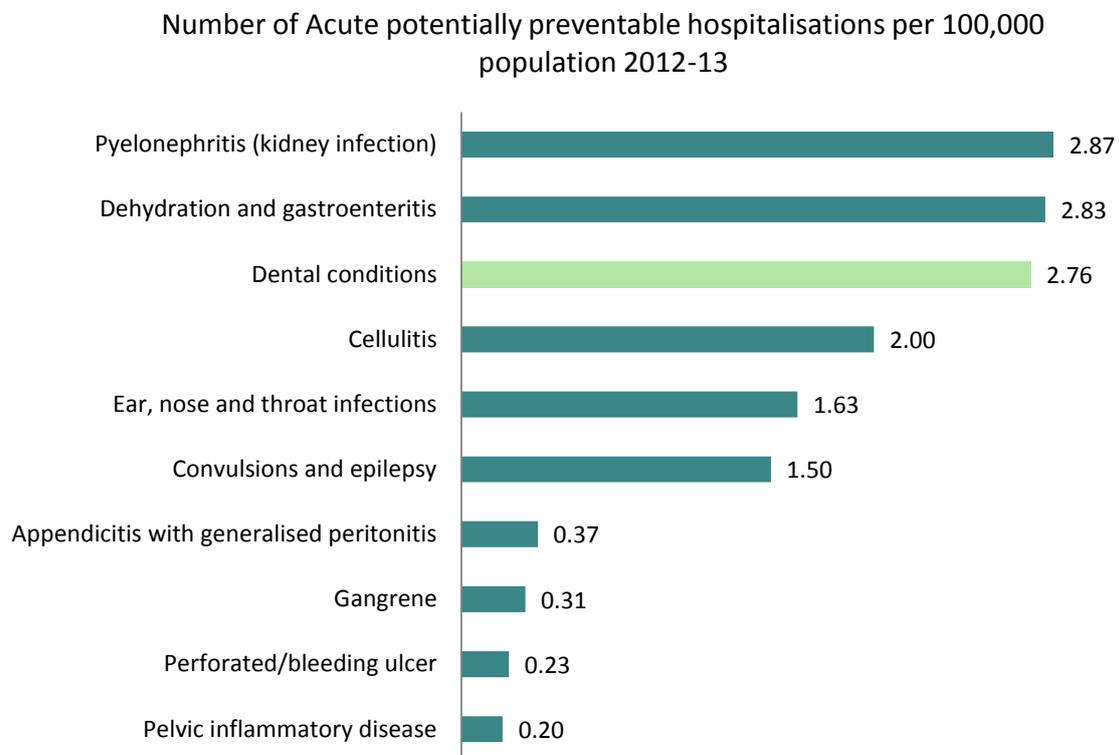


Figure 6: Number of acute PPH separations per 100,000 population²



NATIONAL STRATEGIC DIRECTION

The National Strategic Direction outlines the goals for the next 10 years to reduce the prevalence, severity and impact of poor oral health AND inequalities in access to oral health treatment.

Coordinated action will be required at the national, state and territory level and by researchers, educational institutions and public and private providers.

National Strategic Direction

National Goals

While progress towards improving oral health in Australia during the period of the first National Oral Health Plan has been noted, the overall goals of that Plan remain relevant and appropriate for the second National Oral Health Plan.

Improve oral health status by reducing the incidence, prevalence and effects of oral disease
Reduce the inequalities in oral health status across the Australian population

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

- Decay experience
 - Mean number of decayed, missing and filled teeth
 - Proportion of people with untreated decay
- Periodontal disease
 - Proportion of adults with periodontitis
- Tooth loss
 - Proportion of adults aged 45 and over with complete tooth loss
 - Proportion of adults with less than 21 teeth
 - Mean number of missing teeth
- Disease impact
 - Proportion of people experiencing toothache
 - Proportion of people avoiding foods due to dental problems
 - Proportion of people feeling uncomfortable with the appearance of their mouth or teeth.

Guiding Principles

The National Oral Health 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.⁵² Everyone should receive some support through universal interventions, while groups that are particularly vulnerable should receive additional interventions and support.

The National Oral Health 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 and interest, abilities and socio-economic groups, with recognition and respect for individual needs and views.

Integrated oral 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 National 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 Australians.

<p>F1 - Oral Health Promotion</p> <p>Goal: All Australians have access to oral health promoting environments and to appropriate evidence-based information and programs that support them to make informed decisions about their oral health</p> <p>F1.1: Extend access to the preventive effects of fluoride</p> <p>F1.2: Broaden the availability of evidence based oral health promotion programs and information to professionals and the public</p> <p>F1.3: Strengthen and embed nutrition and oral health policies in key settings such as early childhood, education, health services, residential aged care and disability settings</p> <p>F1.4: Develop the capacity of health, community service and education workers to work with clients to improve oral health</p> <p>F1.5: Strengthen the focus on oral health as an integral part of general health and education policies and plans</p>	<p>F2 - Accessible Oral Health Services</p> <p>Goal: All Australians have access to appropriate oral health care in a clinically appropriate timeframe</p> <p>F2.1: Adopt and monitor the frequency of access guidelines as a benchmark to inform oral health service planning</p> <p>F2.2: Reduce the impact of transport as a barrier to access</p> <p>F2.3: Promote and evaluate the use of Child Dental Benefits Schedule (CDBS) for children in Priority Populations</p> <p>F2.4: Explore the expansion of the CDBS program to support access for adults in Priority Populations</p> <p>F2.5: Reduce the rates of potentially preventable hospitalisations due to dental conditions</p> <p>F2.6: Ensure access to dental surgery programs within a clinically appropriate time</p>	<p>F3 - Systems Alignment and Integration</p> <p>Goal: Social, health and education systems work together to support healthy mouths and healthy lives</p> <p>F3.1: Establish national leadership for oral health</p> <p>F3.2: Develop evidence-based models of care and include oral health components in all relevant models of care in the general health sector</p> <p>F3.3: Integrate oral health care information management systems with other health information systems</p> <p>F3.4: Review oral health related consumer classifications and funding components</p> <p>F3.5: Address legislative inconsistencies impacting on service delivery</p>
<p>F4 - Safety and Quality</p> <p>Goal: Oral health services are provided in accordance with the Australian Safety and Quality Goals for Health Care</p> <p>F4.1: Support the accreditation of private and public oral health services to the National Safety and Quality Health Service (NSQHS) Standards</p> <p>F4.2: Encourage participation in clinical audit and benchmarking programs</p> <p>F4.3: Involve consumers in the planning, design, delivery and evaluation of oral health services.</p> <p>F4.4: Develop a national picture of the consumer experience of oral health services</p> <p>F4.5: Collaborate with peak bodies to develop and implement oral health standards and audit tools across sectors</p>	<p>F5 - Workforce Development</p> <p>Goal: The workforce for oral health is of an appropriate composition and size and is appropriately trained and distributed</p> <p>F5.1: Enhance skills and competencies within the oral health workforce to meet the needs of Priority Populations.</p> <p>F5.2: Build more equity in the distribution of the workforce to improve accessibility to oral health care</p> <p>F5.3: Reduce reliance on targeted migration and employment programs as local capacity to address workforce demand and mal-distribution improves</p> <p>F5.4: Enhance workforce data collection and analysis to inform planning</p> <p>F5.5: Include oral health units of competency as core components of medical, health and community services qualification</p>	<p>F6 - Research and Evaluation</p> <p>Goal: Appropriate and timely data is available at both the population and service level for planning, monitoring and evaluation</p> <p>F6.1: Develop and implement a national oral health research strategy to identify priorities and coordinate activities</p> <p>F6.2: Support research that develops and evaluates oral health promotion programs, models of oral health care and access to care for Priority Populations</p> <p>F6.3: Routinely collect, report and share population oral health and access to care data, including Priority Populations</p>

Priority Populations

The Priority Populations highlight the groups that experience the most significant barriers to accessing oral health care and the greatest burden of oral disease. Under the principle of proportionate universalism, it is these populations that require additional targeted resources and support. Again each Priority Population has defined goals and indicators.

P1 - People who are socially disadvantaged or on low incomes

Goal: Improve oral health outcomes and reduce the impact of poor oral health for people who are socially disadvantaged or on low incomes

- P1.1: Provide integrated oral health services in settings accessed by people who are socially disadvantaged or on low incomes
- P1.2: Improve the oral health literacy of people who are socially disadvantaged or on a low income, and build their capacity to make healthy choices
- P1.3: Review oral health funding components to reflect the additional cost of service delivery for culturally and linguistically diverse consumers.

P2 - Aboriginal and Torres Strait Islander people

Goal: Improve oral health outcomes and reduce the impact of poor oral health for Aboriginal and Torres Strait Islander people

- P2.1: Increase community engagement in the planning and delivery of oral health services
- P2.2: Promote the incorporation of cultural competency across training, education and assessment, clinical management protocols and guidelines
- P2.3: Develop integrated models of care that incorporate oral health education, prevention and screening with other primary care services
- P2.4: Increase the representation and engagement of Aboriginal and Torres Strait Islander people in the oral health workforce
- P2.5: Expand existing primary health practice incentives and funding adjustments for oral health services for Aboriginal and Torres Strait Islander people

P3 - People living in regional and remote areas

Goal: Improve oral health outcomes and reduce the impact of poor oral health for people living in regional and remote areas

- P3.1: Promote fluoride in alternative forms to people without access to optimally fluoridated water supplies.
- P3.2: Explore mechanisms to reduce the cost of nutritious foods and oral hygiene products outside major population centres
- P3.3: Implement appropriate funding mechanisms to support flexible oral health service delivery into regional and remote communities
- P3.4: Enhance programs to recruit and retain dental practitioner students and professionals in regional and remote areas

P4 - People with additional or specialised health care needs

Goal: Improve oral health outcomes and reduce the impact of poor oral health for people with additional or specialised health care needs

- P4.1: Collect national baseline and ongoing data to more accurately identify the numbers of people with specialised health care needs, their oral health status and treatment needs
- P4.2: Improve the oral health literacy of the carers and care workers of people with additional or specialised health care needs to incorporate oral health in their existing assessment, care planning and care processes
- P4.3: Build workforce capacity in the oral health sector to effectively address the needs of people with additional or specialised health care needs
- P4.4: 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 Australia.

Foundation Area 1 - Oral health promotion

Goal All 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.³⁷

Professional organisations, state and territory oral health services, the education and welfare sectors, the dental industry, the broader health sector, NGOs 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.⁵⁵

Oral health promotion is most successful in tackling the underlying causes of oral health inequalities when multiple strategies are used.⁵⁶ These strategies include:

- Actions that address the social determinants that contribute to poor oral health, such as employment, education and social inclusion
- Collaboration between governments to create and implement nationally uniform policies and approaches
- Creating environments that promote oral health, such as access to fluoridated water and affordable, accessible and nutritious food
- Focusing on risk factors common to oral health and general health
- Building partnerships that make oral health a focus for other health and allied services
- Involving the community in the development, implementation and evaluation of interventions
- Implementing evidence-based universal programs and action proportionate to the level of disadvantage.

There are a wide range of effective oral health promotion interventions. These include screening and individual risk assessment, health education and skill development, social marketing, community actions, and establishment of supportive environments and settings.⁴⁰

Behavioural choices are influenced by information, resources and the social environment. A challenge in promoting oral health is to make the healthy choices the easier choices.

Development of evidence-based, cost-effective and sustainable oral health promotion programs requires supportive systems for identifying and sharing best practice. Two bodies that have played key roles are the National Oral Health Promotion Steering Group (NOHPSG) and the National Oral Health Promotion Clearing House. NOHPSG's membership includes representatives from state and territory oral health programs, research bodies, professional associations and industry. The Clearing House is a central point for collecting and disseminating oral health promotion practice, research and resources.

At a broad population level, fluoride is a key oral health promotion strategy and all states and territories fluoridate water as part of their management of safe and clean drinking water. In Australia, 82.2% of the population currently has access to fluoridated water. However, there are still some communities that cannot access fluoridated water either due to size, remoteness or local government policies.⁷

What is needed

A coordinated and collaborative approach using multiple population and individual strategies is the most effective way forward. Although 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 individuals, organisations and policy makers.

Extend access to the preventive effects of fluoride

Community water fluoridation is a safe, cost-effective and protective strategy that improves oral health across the population.⁵⁷

Guidelines on the use of fluorides in Australia were developed by an expert consensus workshop in 2005 and reviewed in 2012.^{8,58} The first two recommendations, supported by both workshops are that water fluoridation should be continued as it remains an effective, efficient, socially equitable and safe population approach, and that water fluoridation should be extended to as many people as possible living in non-fluoridated areas, ideally supported by all levels of government.

Currently the approach to water fluoridation varies across jurisdictions resulting in some communities missing the oral health benefit provided. A national standard for access to either a fluoridated water supply or fluoride in other forms is required for the whole population.

Communities with populations of over 1000 people should have access to reticulated fluoridated water supplies. In smaller communities the relative cost of the implementation and maintenance of fluoridation plants, access to alternative fluoride sources and the incidence and cost of oral disease in the community must be considered. Given the substantial oral health disparities and inequalities in access to dental care that can exist and the improved design and reducing cost of fluoridation plants, extending coverage to smaller communities may be appropriate.⁵⁹

In communities without access to fluoridated water, it is particularly important that access is provided to fluoride in its other forms, including fluoride varnish programs and affordable oral hygiene products such as toothpaste.⁶⁰

The National Health and Medical Research Council's (NHMRC) Fluoride Reference Group regularly reviews the evidence for water fluoridation and is tasked with the development of evidence summaries. The establishment of a multidisciplinary national panel to provide technical advice and support to jurisdictions will support the implementation and maintenance of water fluoridation in line with the NHMRC's recommendations.

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

Further efforts are required to enhance the oral health literacy of Australians. 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 take appropriate action.⁶¹

In 2009, a suite of 11 oral health messages was developed at a consensus conference with general and oral health experts organised by the National Oral Health Promotion Clearing House (Appendix 3). These oral health messages support general health messages.

These messages should be regularly reviewed and promoted consistently and widely through a range of channels such as the media, community, workplaces, and health and education settings. This will be consistent with the common risk factor approach of focusing on health messages that support both oral and general health.

The availability of a central repository of oral health promotion resources and research is an effective mechanism to facilitate efficient evidence-based practice and the existing framework to support this structure should be maintained.

The structure and activities of the National Oral Health Promotion Steering Group could be formalised to support a National Oral Health Advisory Committee (see page 32).

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

At each life stage there are evidence-based strategies that have been shown to be successful in improving oral health. Developing a consistent comprehensive set of guidelines or toolkits across Australia would enhance best practice oral health promotion for high needs groups in each life stage and for Priority Populations.⁶² For example:

- Pregnancy and maternal health
- Infants and early years
- Children and adolescents
- Older adults
- Culturally and linguistically diverse groups.

Further oral health promotion initiatives are required to address the high intake of sugary foods and drinks, particularly among priority groups. Initiatives include appropriate labelling, reformulation to reduce the added sugar content, reducing children's exposure to advertising, promoting sugar-free alternatives, and improving access to drinking water in public places.

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.

Epidemiological information and high quality research is important for identifying oral health needs and for the planning, implementation and evaluation of oral health promotion initiatives. Strategies to address these requirements are outlined under Foundation Area 6 – Research and Evaluation.

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

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 that people are most familiar with.

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-oral 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 aged care can have a direct effect on improving oral health.

Develop the capacity of health, community service and education workers to work with clients 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.

The Community Services and Health Industry Skills Council has developed a suite of oral health competencies to enhance the oral health promotion skills of the non-oral health workforce.⁶³ Making this content part of the core competencies and/or including oral health into the range statement within existing 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 and education policies and plans

More broadly, the inclusion of oral health in national, state and territory, and local government policy documents and strategies is important to achieve prevention outcomes. Examples of such policy documents include:

- Australian Dietary Guidelines 2013⁶⁴
- Australian Infant Feeding Guidelines⁶⁵
- National Tobacco Strategy⁶⁶
- Smoking, Nutrition, Alcohol, Physical Activity (SNAP) for GPs⁶⁷
- National Aboriginal and Torres Strait Islander Health Plan 2013-2023⁶⁸
- National health education curriculum
- State and territory and local government health care and oral health plans.

Foundation Area 1 - Key strategies and indicators

GOAL			
All 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.			
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
F1.1: Extend access to the preventive effects of fluoride	(i) Percentage of population with access to optimally fluoridated water (ii) Percentage of communities over 1000 population with access to optimally fluoridated water (iii) National Fluoride Technical Panel established (iv) Proportion of people in non-fluoridated communities who have access to or use alternative methods of fluoride delivery (e.g. toothpaste, varnishes etc.)	See page 23	Medium
F1.2: Broaden the availability of evidence-based oral health promotion programs and information to professionals and the public	(i) Access to and utilisation of oral health promotion messages in various forms (ii) Oral health promotion messages are reviewed every four years (iii) National clearinghouse structure for oral health promotion resources is maintained and enhanced (iv) Proportion of clinical service directories incorporating dental services	See page 24	Short
F1.3: Strengthen and embed nutrition and oral health policies in key settings such as early childhood, education, health services, residential aged care and disability settings	(i) Proportion of early childhood, education, health services, residential aged care and disability settings that meet the revised standards (ii) National nutrition surveys undertaken to provide data on sugar consumption every five years	See page 25	Medium
F1.4: Develop the capacity of health, community service and education workers to work with clients to improve oral health	(i) Proportion of relevant health and wellbeing checks incorporating oral health components	See page 25	Long
F1.5: Strengthen the focus on oral health as an integral part of general health and education policies and plans	(i) Oral health incorporated in the national school curriculum (ii) Proportion of general health promotion campaigns that promote oral health	See page 25	Medium

Foundation Area 2 – Accessible oral health services

Goal All Australians have access to appropriate and affordable oral health care in a clinically appropriate timeframe.

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.^{27,31,47}

- Four out of every ten Australian adults (39%) usually visit the same dentist once a year, visit for a check-up rather than a problem, and enjoy better oral health. This is considered a favourable visiting pattern and is associated with better oral health.²⁷
- Three out of every ten Australian adults (29%) do not usually visit the same dentist, do not visit yearly, and usually seek treatment of a problem rather than for a check-up. This is considered an unfavourable visiting pattern and is associated with poorer oral health.²⁷
- The remaining third of the population has a mixed visiting pattern.²⁷
- Income levels are closely linked to accessibility and therefore to oral health.
 - 22% of people in lower income households are considered to have favourable visiting patterns, compared with 56% of people in higher income households.²⁷
 - Households with lower incomes are most commonly concession card holders, Aboriginal and Torres Strait Islander people and those with more severe chronic diseases and disabilities.²⁷

In 2012–13, nearly one in five (18.8%) 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 GP (5.8%) and more than double the rate of delay for not filling a prescription (8.5%) or for seeing a medical specialist (8.8%).⁶⁹

There are inequalities in access to oral health services in Australia, and this has a lasting and often severe impact on the oral and general health of individuals and population groups. The higher rate of oral disease amongst selected population groups indicates that their needs are not being addressed effectively. 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, and targeted or opportunistic screening and assessment programs clinics. 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 2).

Service provider dimensions	Consumer dimensions
<ul style="list-style-type: none"> • Approachable: transparency, outreach and provision of information 	<ul style="list-style-type: none"> • Ability to perceive a need for service: health understanding, health beliefs, trust, and expectations
<ul style="list-style-type: none"> • Acceptable: professional values and norms, and the culture and gender of the service provider 	<ul style="list-style-type: none"> • Ability to seek the service needed: personal and social values, culture and gender, and autonomy
<ul style="list-style-type: none"> • Available: geographic location, availability of accommodation, opening hours and appointment mechanisms 	<ul style="list-style-type: none"> • Ability to reach the service: the living environment, available transport, and mobility and social support
<ul style="list-style-type: none"> • Affordable: direct, indirect and opportunity costs 	<ul style="list-style-type: none"> • Ability to pay for the service: income, assets, social capital and health insurance
<ul style="list-style-type: none"> • Appropriate: technical and interpersonal quality, coordination, and continuity of service provision 	<ul style="list-style-type: none"> • Ability to engage effectively with the service: empowerment, information and caregiver support

Table 2: Dimensions of accessibility⁷⁰

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. 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. Guidelines for frequency of access to oral health services will support access for individuals at all life stages, and help in planning services and workforce distribution.

While these guidelines are suitable for the broad population and high level planning, the development of more specific guidelines for high-risk groups is required.

As with other health services there is increasing use of outsourcing to private providers to meet the demand for public sector dental services, with associated reductions in waiting times. This approach has been shown to be most effective in the acute hospital sector when the arrangements are well-planned, collaborative and longer-term.⁷¹ It can be expected that similar principles would be applicable to dental services.

Increased collaboration between public, private and non-government sectors will support efficient use of resources and maximise access to care.

Life stage	Frequency of access guidelines for oral health service planning
Pregnancy	<ul style="list-style-type: none"> At antenatal visits, women should receive an oral health risk assessment by their health care provider and be referred to a dental practitioner if required⁷² 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	<ul style="list-style-type: none"> 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 2, 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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+	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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

Table 3: Frequency of access guidelines for oral health service planning

Reduce the impact of transport as a barrier to access

A lack of affordable or accessible transport is one of the barriers for people accessing health services.⁷³ Health service planning should locate dental services within known hubs (eg: shopping centres) and with access to public transport and parking.

Another way to reduce transport barriers is through existing programs. There is an array of emergency and routine health transport programs provided by governments and community or volunteer groups and funded by state, territory or local governments or community groups. The eligibility for transport assistance varies between and within jurisdictions and does not reflect the impact or health consequences of poor oral health relative to other medical and health conditions. More equitable access to transport programs and assistance is required for consumers with oral health needs.

Promote and evaluate use of Child Dental Benefits Schedule (CDBS) for children in Priority Populations

An important program in improving the affordability of oral health care for children in Priority Populations is the Child Dental Benefits Schedule (CDBS). The CDBS is administered through the Medicare system and provides subsidised care for eligible children in the private and public sector. Eligibility is based on age (2-17 years) and receipt of selected government payments.

Further promotion of the CDBS will assist eligible children and their families to be aware of this program. 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 the Priority Populations.

Explore the expansion of the CDBS program to support access for adults in Priority Populations

The evaluation of the CDBS should inform further analysis and planning required to identify the most effective means of expanding the program to incorporate adults in Priority Populations.

Reduce the rates of potentially preventable hospitalisations due to dental conditions

As discussed, PPH 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.²

While it is recognised that some people will always require hospitalisation due to poor oral health, efforts to reduce the rates of PPH will help reduce cost and resource burdens on the hospital system.

Ensure access to dental surgery program within a clinically appropriate time

Consumers requiring elective surgery 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.

The inclusion of dental surgery patients on hospital waiting lists and in the reported data varies by jurisdiction. Furthermore, the limited integration of dental surgery with other elective surgery processes, together with problematic funding arrangements has a negative impact on timely access to dental surgery.

As a result, there is not an accurate picture of demand and waiting times for oral health treatments. The establishment of nationally consistent guidelines will assist categorisation and improve data collection, monitoring and ultimately consumer outcomes.⁷⁴

Foundation Area 2 - Key strategies and indicators

GOAL All Australians have access to appropriate and affordable oral health care in a clinically acceptable timeframe.			
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
F2.1: Adopt and monitor the frequency of access guidelines as a benchmark to inform oral health service planning	(i) Percentage of population achieving guidelines for frequency of access at each life stage (ii) Guidelines for access by high-risk populations developed	See page 28	Short Medium
F2.2: Reduce the impact of transport as a barrier to access	(i) Decrease in proportion of population reporting transport as a barrier to access to oral health care	See page 29	Medium
F2.3: Promote and evaluate the use of the Child Dental Benefits Schedule (CDBS) for children in Priority Populations	(i) Percentage of eligible children accessing oral health care through the CDBS (ii) Percentage of eligible children accessing CDBS that are from Priority Populations (iii) Type and relative mix of services provided through the CDBS	See page 30	Short
F2.4: Explore the expansion of the CDBS program to support access for adults in Priority Populations	(i) Evaluation of the CDBS informs program expansion	See page 30	Medium
F2.5: Reduce the rates of potentially preventable hospitalisations due to dental conditions	(i) National evidence-based benchmark developed for potentially preventable hospitalisations (ii) Rate of potentially preventable hospitalisations due to dental conditions	See page 30	Medium
F2.6: Ensure access to dental surgery within a clinically appropriate time	(i) Proportion of consumers receiving their dental surgery procedure within the clinically appropriate time.	See page 30	Medium

Foundation Area 3 - Systems alignment and integration

Goal Social, health and education systems work together to support healthy mouths and healthy lives.

Setting the scene

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 2). This complexity can lead to an uncoordinated and poorly integrated approach to oral health service planning, resulting in service fragmentation, gaps and ultimately less than optimal outcomes for some consumers.

These issues are compounded by a lack of integration with the wider health system. The lack of alignment and coordination with the wider health system is evident across all aspects of service delivery.

While improvements occurred over the life of the first National Oral Health Plan, many opportunities remain to better internally and externally align the oral health system. 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.

What is needed

More effective collaboration between public, private and non-government sector providers and funders within the oral health system is critical to maximise resources and achieve an efficient and equitable provision of care.

Systems alignment and integration requires oral health to be part of and coordinated with the general health system. Alignment and integration must occur at all levels of the health system.

Establish national leadership for oral health

With increasing investment in oral health by successive Australian Governments, coordination of programs across government departments and across jurisdictions is required to ensure that the maximum benefits are delivered in an efficient and equitable manner.

National leadership is required to guide and inform the development, implementation and evaluation of oral health policy and programs and to oversee the integration of oral health and general health programs across sectors, jurisdictions and delivery settings. The promotion of inter-sectorial collaborations at policy, program and care delivery levels will be particularly important across the four Priority Population groups. Examples include the disability, mental health and aged care sectors as well as Aboriginal and Torres Strait Islander communities. The appointment of an Australian Chief Dental Officer who is supported by a broadly representative National Oral Health Advisory Committee could take on the responsibility for providing this leadership and overseeing this work.

Develop evidence-based models of care and include oral health components in all relevant models of care 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.⁷⁵ Most states and territories have developed models of care 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 helps optimise patient outcomes, improves collaboration between health professionals, and develops the understanding of the relationship between oral health and general health interaction.

Coordinated and consistent models of care for the delivery of oral health services, particularly for the Priority Populations, will support integration between sectors and with the broader health system. Models of care should emphasise primary (e.g. oral health promotion and population health approaches), secondary (e.g. minimal intervention dentistry and preventive clinical interventions) and tertiary (e.g. oral rehabilitation) prevention approaches.

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. Shared health information and records support increased consumer focus and enable more coordinated care.

Increased efforts are required to maximise linkages between existing oral health data systems and between oral health and other health data systems such as the Personally Controlled Electronic Health Record. These efforts will include the creation of common data dictionaries addressing service activity and measurement definitions and methodologies.

Review oral health-related consumer classifications and funding components

Activity-based funding models (ABF) 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 Diagnosis Related Groups (DRGs) to categorise consumers with similar conditions requiring similar care and resources. ABF can also include loadings for specific consumer groups, such as Aboriginal and Torres Strait Islander people and residents of regional and remote areas, to reflect the additional cost of service delivery.

Some people, such as young children, people with a disability or those with complex medical conditions, can require admission to hospital for dental treatment. Timely access to operating theatres for dental treatment under general anaesthetic is critical. While access should reflect clinical need, the existing DRG categorisation disadvantages dental patients compared with other surgical and medical conditions. The 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 DRGs 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.

Review legislation impacting on oral health service delivery

The establishment of legislation and processes to support national registration has provided a consistent framework for the regulation of health professionals. However variation in other legislation continues to impact on the delivery of dental services. For example, the application of fluoride varnish is recognised as a safe, effective and cost-effective strategy for reducing dental decay in appropriate populations.^{8,76} However legislation covering the use of fluoride varnish and other products varies between jurisdictions, impacting on the ability to implement consistent programs that maximise access to an effective intervention.

Relevant legislation and regulations including Poisons Acts, Health Acts and Radiation Safety Acts should be reviewed to remove unnecessary barriers to the provision of dental care.

Foundation Area 3 – Key strategies and indicators

GOAL Social, health and education systems work together to support healthy mouths and healthy lives.			
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
F3.1: Establish national leadership for oral health	(i) Annual reports delivered by Chief Dental Officer (ii) Establishment of a broadly representative advisory body	See page 32	Short
F3.2: Develop evidence-based models of care and include oral health components in all relevant models of care in the general health sector	(i) Proportion of relevant models of care which include oral health components	See page 33	Medium
F3.3: Integrate oral health care information management systems with other health information systems	(i) Inclusion of oral health data in electronic health records (ii) Establishment of national dental data dictionary consistent with other health data dictionaries	See page 33	Long
F3.4: Review oral health-related consumer classifications and funding components	(i) Oral health-related DRGs reviewed and revised (ii) Waiting lists for services under general anaesthetic (iii) Applicability of loadings for oral health services reviewed	See page 33	Short
F3.5: Review legislation impacting on oral health service delivery	(i) Number of pieces of legislation reviewed	See page 34	Short

Foundation Area 4 - Safety and quality

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

Safety and quality are fundamental to the provision of all health care services. In August 2012, the Australian Health Ministers endorsed the first Australian Safety and Quality Goals for Health Care⁷⁷:

- **Safety of care:** That people receive health care without experiencing preventable harm
- **Appropriateness of care:** That people receive appropriate, evidence-based care
- **Partnering with consumers:** That there are effective partnerships between consumers and healthcare providers and organisations at levels of healthcare provision, planning and evaluation.

Oral health services are covered by a range of national, state and territory legislation, standards and processes.

Education and training programs are subject to accreditation standards overseen by the Australian Dental Council, the Australian Qualifications Framework, the Australian Skills Quality Authority and other government accrediting authorities and statutory bodies.

Dental practitioners are required to be registered in accordance with the National Registration and Accreditation Scheme and are subject to the registration standards, policies, codes and guidelines of the Australian Dental Board.

Public dental clinics and services are required to be accredited against the National Safety and Quality Health Service (NSQHS) Standards 1 to 6.⁷⁷ Accreditation of private dental practices against the NSQHS Standards is voluntary.

The Australian Council on Healthcare Standards (ACHS) coordinates an oral health clinical indicator program including analysis of unplanned returns to the oral health centre, endodontic care, children's care and radiography. Participation in the program is limited and predominantly involves public sector services, which limits its effectiveness and the conclusions that can be drawn from the data.

There are few oral health components in the accreditation standards of other health services and industries (e.g. mental health, child care), and those that exist are subject to variable interpretation and auditing.

Consumers are involved to varying degrees in the planning, design and evaluation of oral health services and this is encouraged by the NSQHS Standards.

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 Australia.

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

Accreditation is recognised as a useful mechanism to support safety and quality improvement.^{77,78}

The ten 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 Standards provide a framework for implementing safety and quality improvements.

The majority of public oral health services are required to be accredited to the NSQHS Standards 1 to 6. The Australian Dental Association supports the development and voluntary implementation of national practice accreditation standards and processes that are specific to office-based dental practice.⁷⁹

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.

Encourage participation in clinical audit and benchmarking programs

Benchmarking programs incorporating comparison of clinical outcomes and other quality indicators are an effective tool to support quality improvement within a health system.

Clinical audit programs, utilising clinical outcome data, incident reports and disciplinary action reports, undertaken as part of a structured peer-review and development program can encourage the development of a learning culture focused on quality improvement.

The development of national evidence-based clinical guidelines would support clinical audit and benchmarking program.

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

Increasingly the role of consumer 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 engagement delivers a range of service benefits,⁸⁰ including:

- 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 use.^{81,82}

A person-based approach with the individual as part of the care team will contribute to better communication, improved patient and staff satisfaction, and enhanced clinical outcomes.⁸³

Develop a national picture of the consumer experience of oral health services

Consumer satisfaction with care is one of three outcomes of using a health service (perceived health, evaluated health and consumer satisfaction).

Effective access can be demonstrated when utilisation studies show improved health status or consumer satisfaction.⁸⁴

The development of a regular national picture of the consumer experience derived from a range of sources across sectors will provide valuable feedback on service quality and demand and enable comparison and benchmarking of services to support continuous improvement.

Collaborate with peak bodies to develop and implement oral health standards and audit tools across sectors

A number of other industries such as aged care, disability care and childcare provide services have the potential to impact on the oral health of their clients. There are currently limited oral health components in the accreditation standards of these industries and implementation and application is variable.

More comprehensive oral health components are required in the accreditation standards for aged care, disability care, childcare and other similar services.

Foundation Area 4 – Key strategies and indicators

GOAL Oral health services are provided in accordance with the Australian Safety and Quality Goals for Health Care.			
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
F4.1: Support the accreditation of private and public oral health services to the National Safety and Quality Health Service (NSQHS) Standards	(i) Proportion of public services accredited to the NSQHS standards (ii) Proportion of private services accredited to the NSQHS standards	See page 36	Medium
F4.2: Encourage participation in clinical audit and benchmarking programs	(i) Proportion of public and private services participating in benchmarking programs (ii) Number of national evidence-based clinical guidelines implemented	See page 36	Medium
F4.3: Involve consumers in the planning, design and evaluation of oral health services	(i) Proportion of oral health services with policies and processes supporting consumer engagement	See page 36	Short
F4.4: Develop a national picture of the consumer experience of oral health services	(i) Regular national surveys of consumer experience undertaken	See page 37	Medium
F4.5: Collaborate with peak bodies and regulators to incorporate comprehensive oral health components in accreditation	(i) Number of sector's standards with appropriate oral health components (ii) Proportion of settings and services achieving standards	See page 37	Medium

Foundation Area 5 - Workforce development

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

Setting the scene

Fundamental to implementing the National Oral Health 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 dental practitioners (dental hygienists, dental prosthetists, dental specialists, dental therapists, dentists and oral health therapists) and non-registered staff (dental assistants and dental technicians).

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. Dental practitioner numbers increased from around 14,000 in 2003 to nearly 21,000 in 2014 (Figure 7).^{85,86}

Demand for oral health services is expected to grow 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 usage, the supply of the oral health workforce will exceed demand through to 2025.⁸⁶ This provides the opportunity to review service availability and optimise access to oral health services for Priority Populations.⁸⁷

The increased number and size of dental schools over the past decade and the associated demand for staff has resulted in increased recruitment of overseas academics.

The growth in practitioner numbers has increased the ratio of dental practitioners to population but inequitable geographic distribution of workforce remains (Figure 8).

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

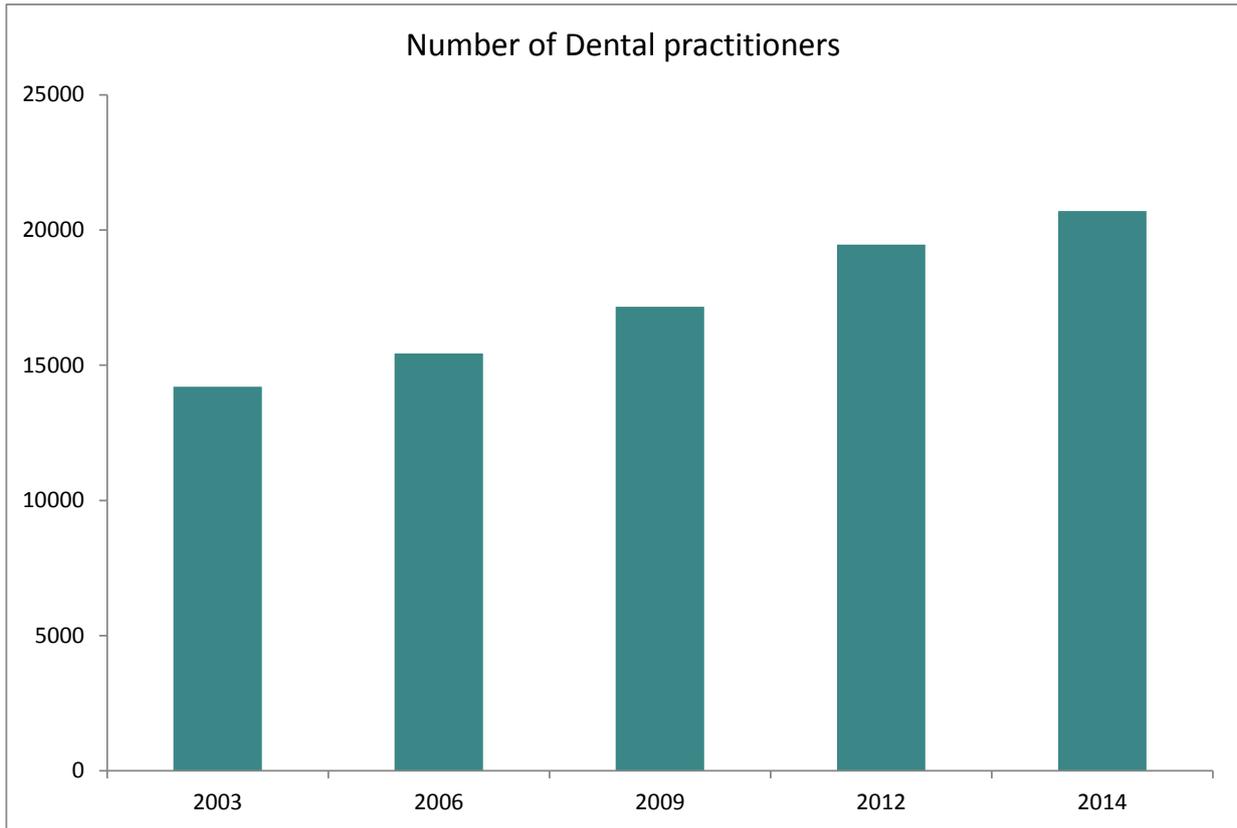


Figure 7: Number of dental practitioners^{85,86}

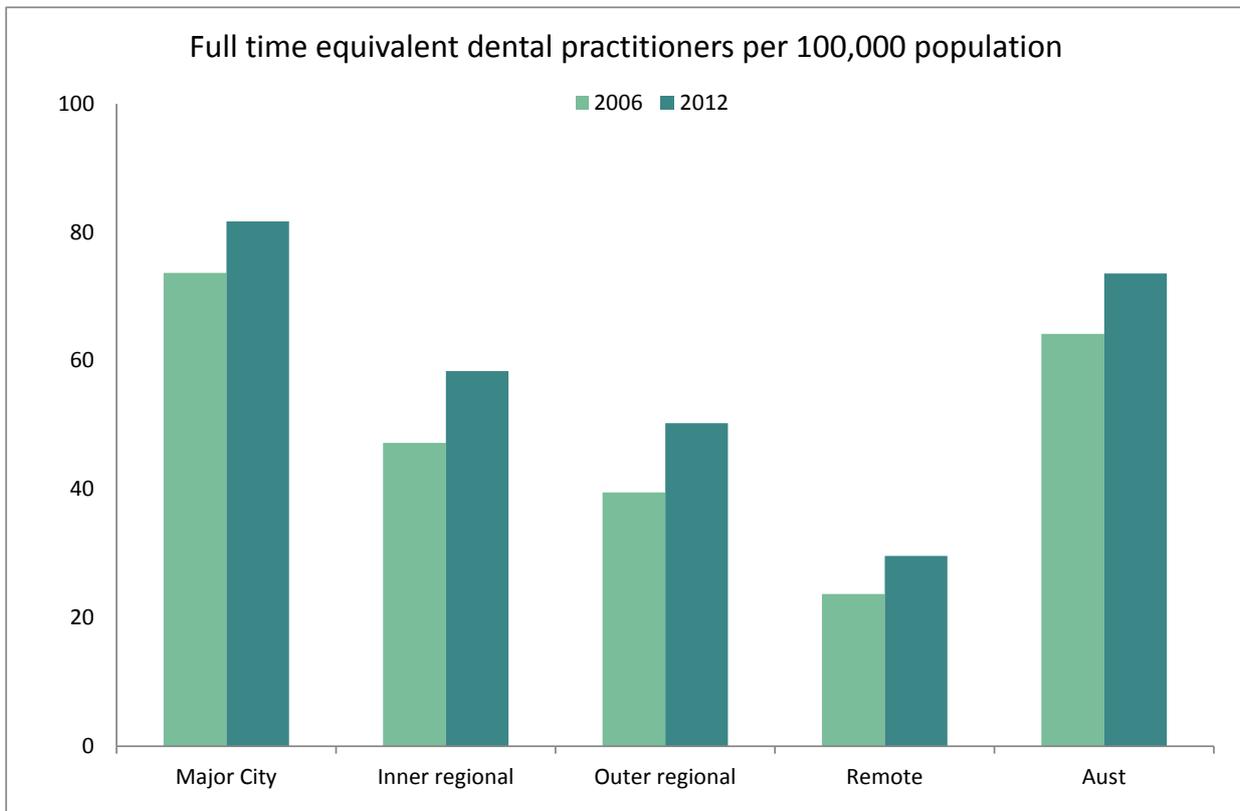


Figure 8: Full time equivalent Dental practitioners per 100,000 population⁸⁶

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 and Torres Strait Islander health practitioners and health workers
- diabetes educators
- dieticians
- midwives
- maternal and child health nurses
- general practitioners
- medical specialists
- nutritionists
- registered nurses
- speech pathologists
- other 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 a consumer including more frequent interactions with Priority Population groups. 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 the population. 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 health workforce to meet the needs of Priority Populations

The growth in the number of registered dental practitioners has reduced concerns relating to workforce supply. This will allow a stronger focus to be placed on ensuring that the skills and competencies of the oral health workforce are used to address the needs of the Priority Populations.

Training and professional development for the oral health workforce must reflect the competencies required to address the needs of the Priority Populations and efficiently and effectively use the skills of the whole oral health workforce. It is also a priority to ensure the capacity of the existing and future oral health workforce to work as part of multidisciplinary teams and effectively engage with team members such as social workers and interpreters to address the needs of the Priority Populations.

Additional 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.

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

With the projected capacity in the dental practitioner workforce, strategies can be considered to address the inequalities that exist in the distribution of the dental practitioner workforce. These inequalities 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 dental practitioners and the non-registered workforce requires a more flexible approach to the utilisation of the skills of the whole workforce. This will require a focus on:

- regulatory barriers to a flexible approach to workforce utilisation
- funding barriers to providing support and incentivising dental practitioners to work in regional and remote areas and with Priority Populations
- educational and training outcomes which reflect skills and competencies relevant to Priority Population needs
- identification of how new and emerging technologies can be used to improve accessibility for Priority Populations (e.g. telehealth)
- innovative partnership models between the public, non-government and private sectors and regional and remote communities to create opportunities for broader service distribution.

Reduce reliance on targeted migration and employment programs as local capacity to address workforce demand and mal-distribution improves

Historically, overseas-trained dentists have filled workforce gaps in the public sector, regional and remote areas and academia. This has occurred through regular targeted migration and employment programs. As the increased number and size of domestic dental schools has produced more graduates, the reliance on overseas-trained clinicians is decreasing.

While the engagement of international academic staff brings a broad range of experience and knowledge that benefits teaching and research programs, an increased focus on developing career paths and research support for local staff is required.

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 data collection and analysis. These include 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.⁸⁷

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 vocational education sector has developed training packages and competency units to 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.

Foundation Area 5 - Key strategies and indicators

GOAL	The workforce for oral health is of an appropriate composition and size and is appropriately trained and distributed.		
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
F5.1: Enhance skills and competencies within the oral health workforce to meet the needs of Priority Populations.	(i) Relative numbers and proportion of new dental practitioner graduates by discipline (ii) Number of dentists with specialist registration relevant to the Priority Populations (iii) Relative numbers of dental assistants and dental technicians completing Health Training Package qualifications.	See page 42	Long
F5.2: Build more equity in the distribution of the workforce to improve accessibility to oral health care	(i) Geographic distribution of the oral health workforce (ii) Sector distribution of oral health workforce (iii) Proportion of oral health training programs that develop skills and competence specific to Priority Populations	See page 42	Long
F5.3: Reduce reliance on targeted migration and employment programs as local capacity to address workforce demand and mal-distribution improves.	(i) Proportion of dental practitioners with an overseas qualification (ii) Geographic and sector distribution of dental practitioners with an overseas qualification	See page 42	Medium
F5.4: Enhance workforce data collection and analysis to inform planning	(i) Routine collection of practice activity data for the oral health workforce	See page 43	Short
F5.5: Include oral health units of competency as core components of medical, health and community services qualifications	(i) Proportion of relevant university and vocational education sector training packages with oral health units as core components	See page 43	Medium

Foundation Area 6 - Research and evaluation

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

Setting the scene

One of the most fundamental requirements of an 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 evidence-based approach and 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 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 Australia. Some data are collected from public dental services; however, this represents less than 30% of total dental services expenditure. Public dental service data are also not necessarily representative, due to variation between jurisdictions in the scope and coverage of public dental programs.

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 that use more complex data analysis and mapping technology provide valuable insights into service availability and access.⁸⁸

Australian academics, researchers and clinicians have a strong history and reputation in clinical, epidemiological and population oral health research. However, although oral disease was the second most costly disease group in Australia in 2008-09, accounting for 9.7% (\$7.18 billion) of health expenditure (second only to cardiovascular diseases¹), less than 1% of the NHMRC grant funding was allocated to dental and oral health research from 2003 to 2012.⁸⁹

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.

Develop and implement a national oral health research strategy to identify priorities and coordinate activities

The cost and impact of poor oral health in Australia warrants a structured and coordinated approach to oral health research. The development of a national strategy to guide research and evaluation activities will further enhance the quality and utility of research work being undertaken in Australia and draw on the expertise available in all jurisdictions.

An agreed national strategy will also inform research investment decisions, facilitating a more equitable allocation of research funding.

Support research that develops and evaluates oral health promotion programs, models of oral health 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 Australians is linked to socioeconomic status and a trend analysis of oral health.

Research activities should support the development and implementation of innovative oral health models of care. This should include examination and evaluation of the quality of oral health services provided, oral health models of care and oral health interventions for the Priority Populations. The relative effectiveness, efficiency and health and process outcomes between jurisdictions and sectors provide a valuable source of comparative evaluation and should inform future programs and investment.

This big-picture research should be complemented by other 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.

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. Geospatial modelling techniques and similar tools should be applied to reduce inequalities in access and service delivery.

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

The monitoring and evaluation of the oral health of Australians requires regular population-level epidemiological examinations. To date this has occurred irregularly in Australia and major studies such as the National Survey of Adult Oral Health and the Child Oral Health Survey have depended on ad-hoc funding sources. A commitment to the funding of regular (at least every 10 years) epidemiological studies of the oral health of adults and children is essential to ensuring 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.

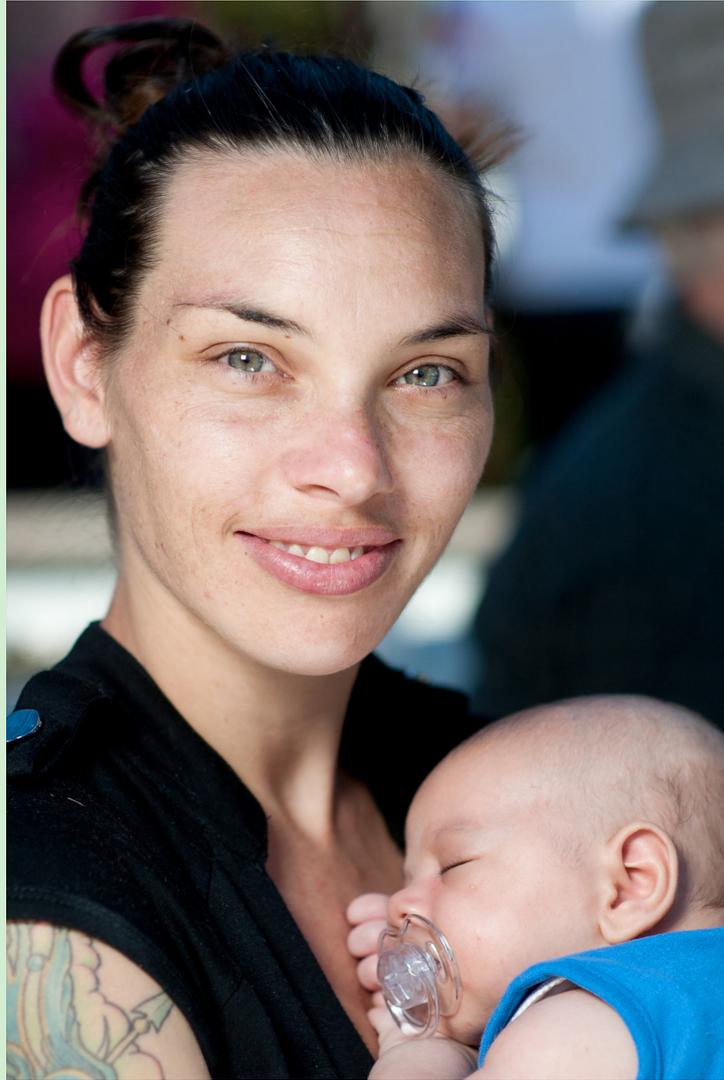
The availability of data at the consumer and practitioner level in the private sector is currently limited, which impacts on the ability to undertake robust population-level evaluations and comparisons between the public and private sectors. Actions to address these data gaps are required.

The representation of the Priority Populations in existing data collections is limited due to relatively small population numbers and challenges with identification. While there are pockets of Priority Population data at the local and state level, there is limited data at the national level.

An increased focus on ensuring nationally representative data on Priority Populations is required to support evaluation of access and outcomes for these groups.

Foundation Area 6 - Key strategies and indicators

GOAL		Appropriate and timely data is available at both the population and service level for planning, monitoring and evaluation.		
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON	
F 6.1: Develop and implement a national oral health research strategy to identify priorities and coordinate activities	(i) Annual progress reporting on strategy implementation	See page 45	Short	
F 6.2: Support research that develops and evaluates oral health promotion programs, models of oral health care and access to care for Priority Populations	(i) Proportion of research dollars invested in oral health research targeting population oral health and Priority Populations (ii) Proportion of service planning processes using tools such as geospatial mapping	See page 45	Short	
F 6.3: Routinely collect, report and share population oral health and 'access to care' data, including for Priority Populations	(i) Oral epidemiological survey completed every 10 years for adults and children (ii) Data on 'access to care' and oral health behaviours is reported regularly (iii) Priority Populations are appropriately represented in routine data collections and reports	See page 46	Medium	



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 - People who are socially disadvantaged or on low incomes

Goal Improve oral health outcomes and reduce the impact of poor oral health for people who are socially disadvantaged or on low incomes.

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

Setting the scene

According to the Australian Bureau of Statistics (ABS), one in four people (23% or 4.9 million) live in low-income households.⁹⁰ 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 9).⁵ Additionally, children from low socio-economic areas are 70% more likely to have poor oral health than children in higher socio-economic areas.³⁰

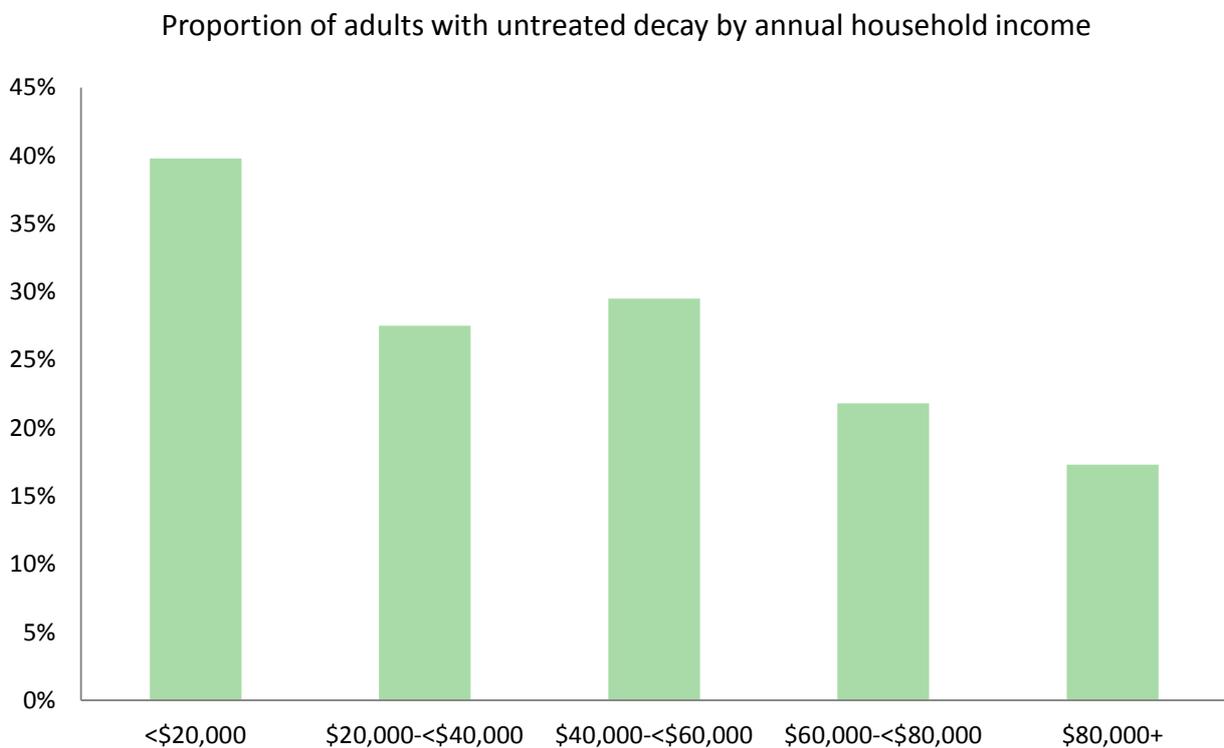


Figure 9: Population of adults with untreated decay by annual household income⁵

Between 1994 and 2008, the rate of check-up visits as a proportion of all dental visits rose from 46% to 55%, 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 10).^{91,92}

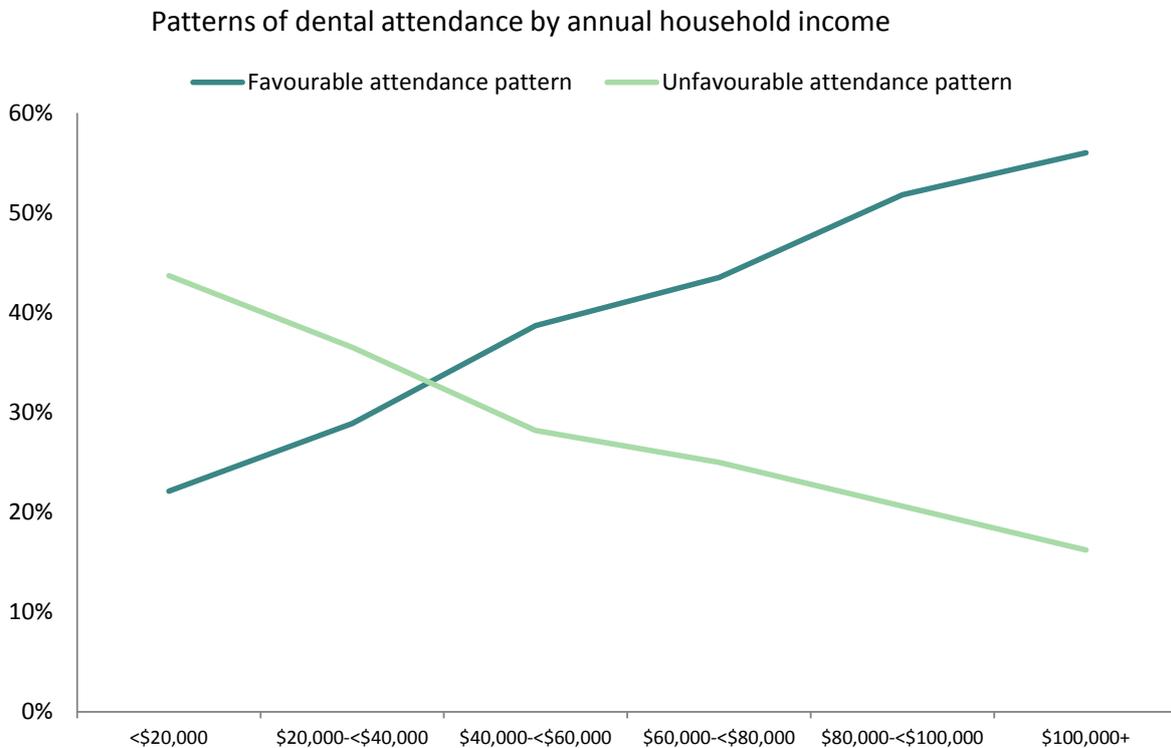


Figure 10: Patterns of dental attendance by annual household income⁹²

In the most disadvantaged areas, 25.1% of people delayed or did not see a dental professional due to cost — more than double the rate in the least disadvantaged areas (12.0%).⁶⁹

Concession card holders were significantly more likely to have avoided or delayed care due to cost (43%) and report cost as an issue preventing recommended treatment (30%) compared with non-cardholders (27% and 19% respectively).³²

Given that the overall out of pocket costs for dental care are greater than for any other major category of health spending, affordability of oral health rates highly as a barrier to 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.^{93,94}

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 the Foundation Area activities.

Provide integrated oral health services in settings accessed by people who are socially disadvantaged or on low incomes

People who are socially disadvantaged or on low incomes infrequently visit a dentist, and these visits are for treatment of an oral health problem rather than for preventive care (e.g. check-up). The reasons for this are multi-dimensional, including affordability of care and appropriateness of service delivery.

There is growing evidence that co-located, coordinated primary health care (including oral health care) is successful in engaging with vulnerable families and disadvantaged communities and providing the multi-layered support that delivers better health outcomes.^{95,96}

Benefits of providing oral health care in settings already accessed by people who are socially disadvantaged or on low incomes include:

- maximising and up-skilling a broader workforce to enable the delivery of basic oral health promotion, including an awareness of common oral diseases and their identification, oral health assessments and/or screening and the use of identified referral pathways
- more connected services, such as integrating identified referral pathways, can assist in overcoming the barriers between primary and secondary care.

Some of the most significant opportunities for service improvement are for individuals with complex health needs and multi-morbidities who require care that is focused on more than one aspect of their health. Integrated services can avoid 'silos' occurring, where only one health issue is treated in a fragmented fashion.

Experience integrating services internationally has indicated that a single point of access, a single assessment process, and a close alignment between health professionals of varying disciplines ensures health consumers receive more holistic care.⁹⁷

Creating a more integrated health system encourages a more consumer-centred approach to health care. Services which are structured to link individuals with multiple health services, professionals and programs across sectors are better placed to respond to an individual's stated and assessed needs. This approach engages individuals with the necessary proactive efforts to welcome them into treatment.⁹⁸

There is 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.⁹⁵

For example, better integration of mainstream refugee health services and oral health services would help 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.⁹³

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

People who are socially disadvantaged or on a low income have lower levels of health literacy (including oral health).⁹⁹ Health literacy enables people to understand basic health information and act in their own interest.¹⁰⁰

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 important 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.¹⁰¹

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

People with low English proficiency comprise particularly vulnerable populations including new arrival humanitarian entrants.¹⁰²

Appropriately credentialed interpreters are an essential part of the health care team for patients with low English proficiency. The failure to use credentialed interpreters when required presents significant risks to patients due to potential for misdiagnosis, misunderstanding or patients 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 use of services and improved clinical outcomes.¹⁰³

Inadequate funding was identified as a significant barrier to engaging credentialed interpreters in healthcare settings.⁶⁸

The costs associated with provision of interpreting services include the:

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

Priority Population 1 – Key strategies and indicators

GOAL		Improve oral health outcomes and reduce the impact of poor oral health for people who are socially disadvantaged or on low incomes.		
KEY STRATEGIES		INDICATORS	RATIONALE	HORIZON
P1.1:	Provide integrated oral health services in settings accessed by people who are socially disadvantaged or on low incomes	(i) Proportion of socially disadvantaged or low income people that achieve access guidelines	See Page 52	Medium
P1.2:	Improve the oral health literacy of people who are socially disadvantaged or on a low income and build their capacity to make healthy choices	(i) Level of oral health literacy in socially disadvantaged or low income people	See Page 53	Medium
P1.3:	Review oral health funding components to reflect the additional cost of service delivery for culturally and linguistically diverse (CALD) consumers.	(i) Implementation of funding model appropriately reflecting cost of service delivery to CALD populations.	See Page 53	Medium

Priority Population 2 - Aboriginal and Torres Strait Islander people

Goal Improve oral health outcomes and reduce the impact of poor oral health for Aboriginal and Torres Strait Islander people.

Setting the scene

A proportion of Aboriginal and Torres Strait Islander people have good oral health. On average, however, Aboriginal and Torres Strait Islander people experience poor oral health earlier in their lifespan and in greater severity and prevalence than the rest of the population.⁵ Aboriginal and Torres Strait Islander 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.¹⁰⁴

- Many Aboriginal children experience extensive destruction of their deciduous (baby) teeth¹⁰⁵
- Trends indicate that the high-level dental decay in deciduous (baby) teeth is rising¹⁰⁴
- Aboriginal people 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) disease¹⁰⁶
- Aboriginal people experience complete tooth loss at almost five times the rate of the non-Aboriginal population⁵
- 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'⁵
- The rate of potentially preventable dental hospitalisations for Aboriginal and Torres Strait Islander people is higher than other Australians.^{107,108}

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

- Over 43% of Aboriginal and Torres Strait Islander people live in inner or outer regional Australia and 21% live in remote areas with limited local services and transport options¹⁰⁹
- More than two in five Aboriginal and Torres Strait Islander people over the age of 15 defer or avoid dental care due to cost. This is compared with one in eight (12.2%) who delayed or did not go to a GP⁶⁹
- There is limited representation of Aboriginal and Torres Strait Islander people in the oral health workforce and many dental services are not culturally sensitive.^{110,111} For example, strict appointment times and inflexibility regarding 'failure to attend' may result in a fee to the consumer. Many Aboriginal and Torres Strait Islander people also prefer to visit a dentist with family members and friends, a practice that is generally not accommodated.

Not only do Aboriginal and Torres Strait Islander 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.¹¹² 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 and Torres Strait Islander people will require more than a focus on oral health behaviours.¹¹³ Culture, individual and community social and emotional wellbeing, history, demography, social position, economic characteristics, biomedical 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.¹¹⁴

What is needed

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

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

Aboriginal and Torres Strait Islander health goes beyond the physical wellbeing of an individual to encompass the social, emotional and cultural wellbeing of the whole community. The active engagement of Aboriginal and Torres Strait Islander 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.¹¹⁴

In addition, health and education workers in Aboriginal and Torres Strait Islander communities, such as Aboriginal Health Workers, can be supported to become oral health promoters.¹¹⁵

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

A lack of cultural competency within the health workforce is a long-standing barrier in the provision of health services to Aboriginal and Torres Strait Islander people. Further work is required to embed an understanding of cultural competency in oral health clinical guidelines and programs and to ensure cultural awareness and competency training supports all 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 and Torres Strait Islander communities vary greatly across 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.¹¹⁶

There is growing evidence that co-located, coordinated primary health care (including oral health) is successful in engaging Aboriginal and Torres Strait Islander people and providing the multi-layered support which delivers better health outcomes.¹¹⁶

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 and Torres Strait Islander people.

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

Building an Aboriginal and Torres Strait Islander oral health workforce is important to the health and wellbeing of Aboriginal and Torres Strait Islander people and the communities in which they live. Increased representation of Aboriginal and Torres Strait Islander people amongst the oral health workforce will support the delivery of more culturally appropriate, and therefore, more effective health services.¹¹⁷

Expand existing primary health practice incentives and funding adjustments for oral health services for Aboriginal and Torres Strait Islander people

As part of the Department of Health's Aboriginal and Torres Strait Islander health program, Practice Incentives are offered to encourage primary health care services to register Aboriginal and Torres Strait Islander people for chronic disease management. Between 2010 and 2012, there was a 65% increase in the number of Aboriginal and Torres Strait Islander people registered under the program.

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 and Torres Strait Islander 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 and Torres Strait Islander people, consideration should be given to the inclusion of oral health in the scope of these programs.¹¹⁸

Priority Population 2 – Key strategies and indicators

GOAL Improve oral health outcomes and reduce the impact of poor oral health for Aboriginal and Torres Strait Islander people.			
KEY STRATEGIES	INDICATORS	RATIONALE	HORIZON
P2.1: Increase community engagement in the planning and delivery of oral health services	(i) Proportion of Aboriginal and Torres Strait Islander people that achieve access guidelines by sector (ii) Proportion of oral health services with Aboriginal or Torres Strait Islander representation on consumer reference groups	See Page 56	Short
P2.2: Promote the incorporation of cultural competency across training, education and assessment, clinical management protocols and guidelines	(i) Proportion of public and private services that incorporate cultural competence in clinical management protocols and guidelines	See Page 56	Medium
P2.3: Develop integrated models of care that incorporate oral health education, prevention and screening with other primary care services	(i) Proportion of collaborative programs being delivered for Aboriginal and Torres Strait Islander communities	See Page 56	Long
P2.4: Increase the representation and engagement of Aboriginal and Torres Strait Islander people in the oral health workforce	(i) Proportion of public and private oral health workforce who identify as Aboriginal and/or Torres Strait Islander.	See Page 57	Long
P2.5: Expand existing primary health practice incentives and funding adjustments for oral health services for Aboriginal and Torres Strait Islander people	(i) Utilisation rates of practice incentives (ii) Implementation of appropriate funding adjustments	See Page 57	Medium

Priority Population 3 - People living in regional and remote areas

Goal	Improve oral health outcomes and reduce the impact of poor oral health for people living in regional and remote areas.
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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 Australia's 24 million people, approximately 30% live in regional and remote areas including 3% in remote communities.

People living in regional and remote areas have poorer general health as well as poorer oral health compared with 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.³² Adults living in regional or remote areas have higher levels of tooth loss and more untreated decay (Figure 11).^{5,17}

Even after adjusting for socio-economic factors, children living in regional and remote areas have more decay than children in metropolitan areas.³⁶ 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 8)^{31,119}
- higher costs of providing services in regional and remote areas
- a lack of affordable or accessible transport.⁷³ (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 water in regional and remote communities
- increased cost of healthy food choices and oral hygiene products (including fluoride toothpaste)
- inadequate clinical infrastructure.

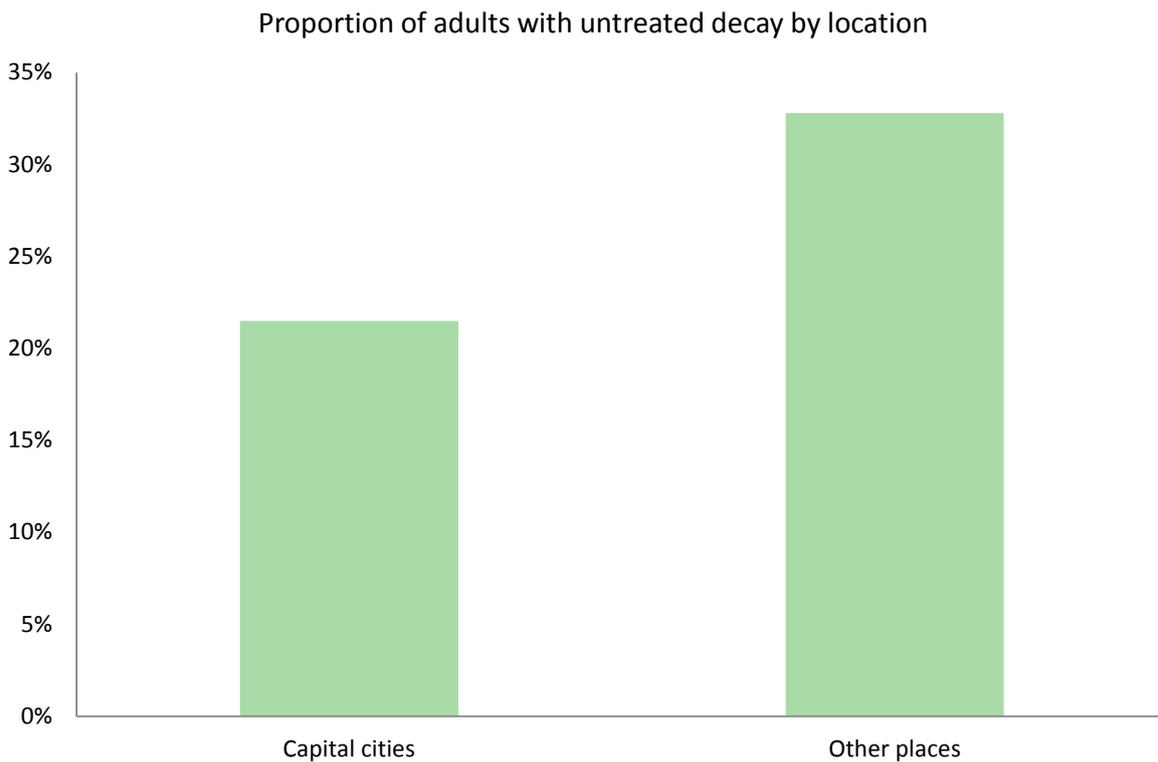


Figure 11: Proportion of adults with untreated decay by location⁵

What is needed

To address the inequalities for this Priority Population, targeted strategies are required in addition to the Foundation Activities. Strategies include:

Promote fluoride in alternative forms to people without access to optimally fluoridated water supplies

Continuing effort is required to increase access to water fluoridation in regional and remote areas as outlined in Foundation Area 1. However, where this is impractical and cost prohibitive, focused effort is required to ensure that other forms of fluoride delivery are made available.

Explore mechanisms to reduce the cost of healthy foods and 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, but also take into account the specific barriers experienced outside major population centres. Key among these barriers is the relatively higher cost of nutritious foods and oral hygiene products.

The cost of a standard selection of grocery items is used to compare costs between geographic locations. However the selection of items varies between jurisdictions and may not include oral hygiene products, making comparison between jurisdictions difficult. The adoption of a national approach would address this issue.

Implement innovative service models and funding mechanisms to support flexible oral health service delivery 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.

These characteristics create unique challenges for oral health service delivery. However, they also provide opportunities for innovation. Regional and remote oral health services can benefit from innovative approaches such as using new technologies in the diagnosis and care of consumers (e.g. tele-health).

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 Australia.¹²⁰

Although 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 private, public 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.¹²¹

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

Building on Foundation Area 5 - Workforce development strategies, targeted programs are needed to make public and private dental practice in regional and remote area viable and therefore more attractive and professionally satisfying to dental practitioners.

The Australian Government and state and territory governments fund a range of programs 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 practitioners. Recognition of the skills needed for regional and remote practice and access to appropriate training is needed.

The Dental Relocation and Infrastructure Support Scheme (DRISS) was established in 2012 to provide relocation grants and infrastructure grants to encourage and support dentists to relocate to regional and remote areas. Formal review of the effectiveness of this program will inform future strategies and funding arrangements.

Priority Population 3 – Key strategies and indicators

GOAL Improve oral health outcomes and reduce the impact of poor oral health for people living in regional and remote areas.			
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
P3.1: Promote fluoride in alternative forms to people without access to optimally fluoridated water supplies	(i) % of people without access to optimally fluoridated water supplies that have access to fluoridation in other forms	See Page 60	Medium
P3.2: Explore mechanisms to reduce the cost of nutritious foods and oral hygiene products outside major population centres	(i) Implementation of a consistent national approach to market basket data collection (ii) Inclusion of oral hygiene product in market basket cost survey	See Page 60	Medium
P3.3: Implement innovative service models and funding mechanisms to support flexible oral health service delivery in regional and remote communities	(i) Number of active partnership delivering oral health services in rural and remote areas (ii) Implementation of appropriate funding adjustments	See page 61	Medium
P3.4: Enhance programs to recruit and retain dental practitioner students and practitioners in regional and remote areas	(i) Proportion of student placement hours in regional and remote areas (ii) Number of students enrolled from regional and remote areas (iii) Number of practitioners completing regional and remote practice training (iv) Formal review of the DRISS program completed	See Page 61	Long Short

Priority Population 4 - People with additional and/or specialised health care needs

Goal Improve oral health outcomes and reduce the impact of poor oral health for people with additional and/or specialised health care needs.

There are specific groups in 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 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, in many instances requiring specialised equipment and training and additional time and resources.

Being a relatively new specialty, there were only 17 registered specialists in Special Needs Dentistry in Australia in 2014, with limited or no availability in some states and territories. 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.¹²²

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% of people estimated to experience a mental health condition in their lifetime.¹²³ 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 more 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.¹²⁴

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, they are not always connected to the general and oral health system.^{125,126}

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.³⁷

People with disabilities

In 2009, there were 4 million people of all ages in Australia with a disability.¹²⁷ 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.¹²⁸ Carers may see oral health care as a lower priority or may lack time or energy for regular oral health visiting and daily oral hygiene.¹²⁸ While there is no national oral health data on people with disabilities, and only very limited state-level data on specific disability groups^{122,128}, current indications are that people with disabilities suffer from poorer oral health than the general population.

As with other Priority Populations, the cost of oral health treatment was a frequently reported problem.¹²² The majority of people with disabilities are on a disability support pension or welfare benefits¹²⁸, and may not be able afford private health insurance.

People with complex medical conditions

Increasing numbers of Australians have several complex and often chronic medical conditions. In 2004-2005, over 7 million people in Australia had at least one chronic condition. While these conditions can arise at any age, the likelihood of having one or more chronic disease increases with age.²²

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.¹²⁸ 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.

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 the age of 85.¹³⁰ This includes people living in residential aged care facilities and in the community. By 2050, it is predicted that more than 3.5 million older people will access aged care services each year, with around 20% of services delivered in residential care and 80% of services delivered in the community.¹³¹ Increasing numbers of older people are retaining their natural teeth and by 2021 only 3% of the population will have complete tooth loss.⁵

Thus, there is a growing population of older 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 with younger Australians, older people have higher rates of tooth decay, moderate and severe gum disease and tooth wear.⁵ Older 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.¹³²

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

Accessibility is a particular issue for older Australians. This includes 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^{130,133} 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.¹³⁴

What is needed

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

Collect national 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

Although there is information available on the numbers of frail older people and their oral health, the same cannot be said about people with mental illness, disabilities and other complex medical 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 care workers and the carers of people with additional and/or specialised health 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 needs, a wide range of health workers, carers and caseworkers, who interact with these populations 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.¹³⁵

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^{136,137}, but requires ongoing educational programs to increase their oral health literacy.^{129,130}

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

Consumers with very complex needs will be treated by dental specialists including specialists in Special Needs Dentistry. However, most dental care for people in these groups will have to be provided by general dental practitioners.

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.

Innovative models are required to maximise engagement of people facing barriers to access. This can include consideration of sites of service delivery and collaboration with other service providers.

Legislation that covers informed consent and the use of physical restraints varies across states and territories. Other Australian dental therapeutic guidelines (e.g. oral sedation) may not be appropriate or effective for people with additional or specialised health care needs. The alignment of this legislation and review of the guidelines would assist dental practitioners in this field and, in turn, their patients.

Improve physical access to dental treatment facilities

Physical access to dental clinics and other treatment settings 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.¹³⁸

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 always economically viable for dental practitioners to purchase portable dental equipment for occasional use. However, there are successful examples of the public dental sector making such equipment available to private dentists to use in homes and institutions as needed, and this approach would need to be expanded.

In some instances, treatment can be provided more efficiently and safely if a dedicated treatment room is made available. Larger institutions would ideally establish a dedicated dental surgery. However, where this is not practical, a shared general-purpose treatment room for all health services is a satisfactory alternative. Collaborative arrangements between the public, non-government, private and education sector can also optimise access and utilisation of physical resources.

Public dental services in a number of states and territories have assisted in the establishment of dental treatment areas through the provision of advice and equipment.

Priority Population 4 – Key strategies and indicators

GOAL	Improve oral health outcomes and reduce the impact of poor oral health for Australians with additional and/or specialised health care needs.		
KEY STRATEGY	INDICATOR	RATIONALE	HORIZON
<p>P4.1: Collect national 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</p>	<p>(i) Regular reporting of oral health status and treatment need for people with additional and/or specialised health care needs</p>	<p>See Page 66</p>	<p>Medium</p>
<p>P4.2: Improve the oral health literacy of the care workers and carers of people with additional and/or specialised health care needs to incorporate oral health in their existing assessment, care planning and care processes</p>	<p>(i) Proportion of people with additional and/or specialised health care needs that achieve access guidelines</p>	<p>See Page 66</p>	<p>Medium</p>
<p>P4.3: 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</p>	<p>(i) Proportion of continuing professional development courses that provide skills in treating people with additional and/or specialised health care needs</p> <p>(ii) National consensus on informed consent and the use of restraints and sedation for dental treatment</p>	<p>See Page 66</p>	<p>Long</p>
<p>P4.4: Improve the physical access to dental treatment facilities</p>	<p>(i) Proportion of dental clinics complying with the Disability (Access to Premises – Buildings) Standards 2010</p> <p>(ii) Proportion of treatments provided to people with additional and/or specialised health care needs using portable dental equipment</p> <p>(iii) Proportion of treatments provided to people with additional and/or specialised health care needs in treatment room in non-dental settings</p>	<p>See Page 67</p>	<p>Medium</p>

Glossary and abbreviations

Aboriginal community control: A process that allows the local Aboriginal community to be involved in its affairs in accordance with whatever protocols or procedures are determined by the community.¹³⁹

Aboriginal health: Not just the physical wellbeing of an individual, but [...] the social, emotional and cultural wellbeing of the whole community in which each individual is able to achieve their full potential as a human being thereby bringing about the total wellbeing of their community. It is a whole of life view and includes the cyclical concept of life-death-life.¹⁴⁰

ABS: Australian Bureau of Statistics

ACHS: Australian Council on Healthcare Standards

ADA: Australian Dental Association

AHMAC: Australian Health Ministers' Advisory Council

AHMC: Australian Health Ministers' Council

AIHW: Australian Institute of Health and Welfare

CDBS: Child Dental Benefits Schedule

Concession card: For the purposes of this document, this refers to a government-issued Health Care Card or Pensioner Concession Card.

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, preventive 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 overdentures 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, and
- 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 or jaws or associated structures.

Early intervention: Interventions targeting people displaying the signs and symptoms of an illness. Early intervention also encompasses the early identification of people suffering from a disorder.

Endodontics: The branch of dentistry concerned with the morphology, physiology and pathology of the tooth and associated tissues, and in particular the dental pulp, crown, root and periradicular tissues. Its study and practice encompasses the basic clinical sciences including the biology of the tooth and its associated tissues, the aetiology, diagnosis, prevention, treatment and restitution of teeth due to diseases and injuries that affect these tissues.

Examination: An oral examination is a comprehensive examination of oral structures undertaken by a qualified dental provider.

Health inequalities: Differences in health experience and outcomes between different population groups (e.g. defined by socio-economic status, geographical area, age, disability, gender, ethnic group).

Health promotion: The process of enabling individuals and communities to increase control over and improve their health. It involves the population as a whole in the context of their everyday lives rather than focusing on people at risk for specific diseases, and is directed toward action on the determinants of health.¹⁴¹

Incidence: The percentage of the population suffering from a disorder for the first time (during a given period).

NHMRC: National Health and Medical Research Council

NOHP: National Oral Health Plan

Oral health: Good oral health can be characterised by adequate dentition and the absence of untreated tooth decay or periodontal disease.⁴⁷ Oral health means much more than healthy teeth. It means being free of chronic oral-facial pain conditions, oral and pharyngeal (throat) cancers, oral soft tissue lesions, birth defects such as cleft lip and palate, and scores of other diseases and disorders that affect the oral, dental, and craniofacial tissues, collectively known as the craniofacial complex.¹⁴²

Oral health risk assessment: A visual inspection of oral structures and consideration of the individual's history and current circumstances undertaken by health care providers. It may result in a referral for dental examination or care, and can inform the development of an oral health care plan.

Oral health screening: A tool used to identify those who are likely to require dental care. It can include simple questionnaires and basic visual inspections.

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.

Outcome: A measurable change in the health of an individual, or group of people or population, which is attributable to an intervention or series of interventions.

Periodontitis: Disease of the gum and/or the surrounding bone, characterized by a receding of the gums, spaces opening between teeth, inflammation/infection, discomfort in the gums, and loosening of the teeth.

Population health: The health of the population, measured by health status indicators. It is influenced by physical, biological, social and economic factors in the environment, by personal health behaviour, health care services etc. Also, the prevailing or aspired level of health in the population of a specified country or region, or in a defined subset of that population.¹⁴³

PPH: Potentially preventable hospitalisation

Prevalence: The percentage of the population suffering from a disorder at a given point of time (point prevalence) or during a given period (period prevalence).

Prevention: The elimination or reduction of the onset of health problems.¹⁴⁴

Prosthetist: See Dental prosthetist

Public health: The practices, procedures, institutions and disciplines required to achieve the desired state of population health.¹⁴³

Range statement: Adds definition to a unit of competency by contextualising the competency, providing a link to knowledge and enterprise requirements, assisting in providing a focus of assessment, and assisting with updating units of competency when they are reviewed.¹⁴⁵

Risk factor: Social, economic or biological status, behaviours or environments, which are associated with increased susceptibility to a specific disease, ill health, or injury.¹⁴¹

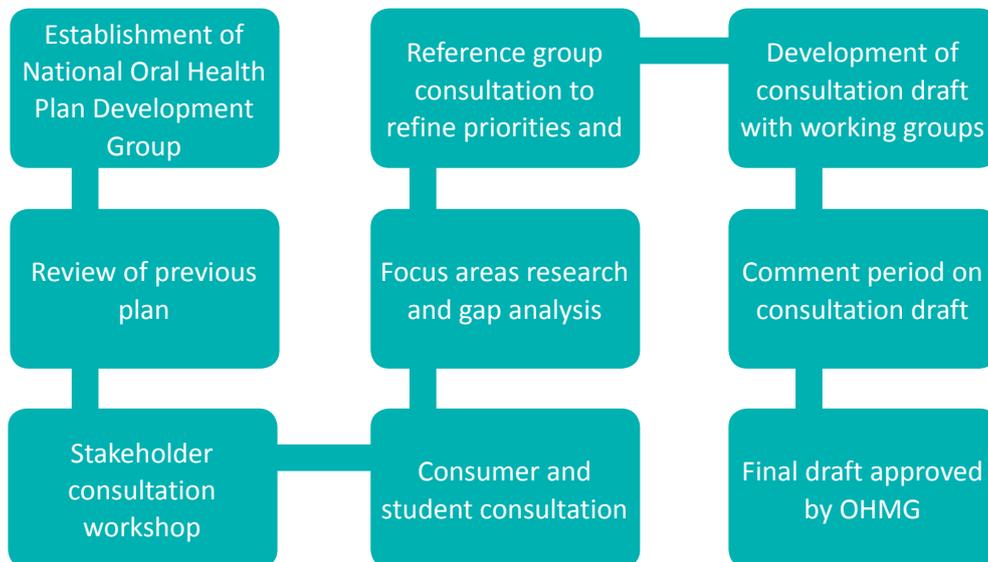
SNAP: Smoking, Nutrition, Alcohol, Physical Activity

Social determinants: The World Health Organisation defines the social determinants of health as conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels.¹⁴⁶

Appendix 1 - Development of the National Oral Health Plan

The development of this National Oral Health Plan was overseen by the Oral Health Monitoring Group (OHMG). The OHMG acknowledges with gratitude the many people who assisted in the preparation of this document and its drafts.

The development of the Plan followed from a review that involved the following:



National Oral Health Plan Development Group

- Mr Andrew McAuliffe, Chair
- Dr Soniya Nanda-Paul, Clinical Lead
- Dr Martin Dooland, Consultation Lead
- Mr Joel Levin, Aha Consulting, Engagement consultant and writer
- Ms Johanna Majzner, Project Officer - Secretariat

Stakeholder workshops

- Clinical service providers
 - Public and private oral health providers
- Educators and researchers
 - Universities and TAFEs
 - Academics and students
 - Researchers
- Peak bodies
- Policy makers

Consumer and student engagement

A consultation process gathered information through the following channels:

- 1 x online survey for the general public (586 responses)
- 1 x online survey for students in the field of oral health (116 responses)

These surveys were promoted through the establishment of:

- A dedicated project website, featuring articles on various aspects of oral health
- Dedicated Facebook, Twitter and Google+ accounts

Working group members

Dr Peter Alldritt
 Ms Linda Bertram
 Dr Werner Bischof
 Associate Professor Robyn Boase
 Ms Alana Booth
 Professor Peter Brooks
 Dr Deborah Cole
 Dr Genevieve Costigan
 Dr Leonard Crocombe
 Mrs Kate Cross
 Professor Andrea de Silva
 Professor Johann de Vries
 Associate Professor Kate Dyson
 Dr Michael Foley
 Dr Pauline Ford
 Dr Kerry Garner
 Dr Edward Gorkic
 Ms Deborah Gray
 Dr Chris Handbury
 Dr Shalika Hedge
 Associate Professor Matt Hopcraft
 Associate Professor Lisa Jamieson
 Dr Ioan Jones
 Ms Bree Jones

Professor Ratilal Lalloo
 Dr Mandy Leveratt
 Dr Sharon Liberali
 Ms Gabrielle Mactiernan
 Mr Andrew McAuliffe
 Dr Maria McGowan
 Dr Sandra Meihubers
 Professor Mike Morgan
 Ms Christine Morris
 Dr Soniya Nanda-Paul
 Professor Jeremy Oats
 Dr Archana Pradhan
 Dr Kerrie Punshon
 Professor Kaye Roberts-Thomson
 Dr John Rogers
 Associate Professor Julie Satur
 Dr Bruce Simmons
 Mr John Skinner
 Professor Linda Slack-Smith
 Ms Margie Steffens
 Professor Marc Tennant
 Ms Janet Weeks
 Associate Professor David Whyatt

Reference Group

Consultation on each draft of the document was conducted with a Reference Group comprising:

- Australasian Council of Dental Schools: Prof Johann de Vries
- Australian Dental Association: Dr F Shane Fryer, Dr Robert Boyd-Boland, Ms Eithne Irving
- Australian Dental and Oral Health Therapists Association: Ms Bronwyn Johnson
- Australian Dental Prosthetists Association: Mr John Rogan, Ms Cindy Tillbrook, Ms Diane Woolcock
- Australian Research Centre for Population Oral Health: Dr Jane Harford
- Dental Directors of Australia: Dr Geoff Franklin
- Dental Hygienists Association of Australia: Dr Melanie Hayes, Ms Jane McGuinness
- Oral Health Professionals Association: Ms Chantelle Adams
- TAFE Directors Australia: Ms Cheryl Underwood

Additional advice and assistance

- Mr Tim Benson, Consumer Health Forum of Australia
- Ms Roslyn Elmes, Department of Health, Western Australia
- Ms Renee Elphick, Department of Health, Western Australia
- Ms Megan Neervoort, Department of Health, Western Australia
- Ms Angela Kirsner, Contributing Writer
- Dr Edgar Linder, Department of Health, Canberra
- Staff of the Commonwealth Department of Health

Appendix 2 – 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 xxiiiA of the Australian Constitution,⁴³ the State and Territory governments have traditionally been responsible for oral health services. During the life of the first National Oral Health Plan, however, the Australian Government took increased responsibility for the funding of oral health services. Programs over this period (2004-2013) are shown:

PERIOD	PROGRAM	SCOPE
2004-2007	Enhanced Primary Care program	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 -2016	Voluntary Dental Graduate Year Program	Provide practice, experience and professional development opportunities, including in underserved areas, to additional dentist graduates
2014 - 2018	Oral Health Therapist Graduate Year Program	Enable graduates to provide additional preventative dental care and health advocacy to adults and children in areas of need
2013-2014	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.
2012-13 to 2021-22	Stronger Futures Northern Territory – National Partnership Agreement – Health Implementation – Oral Health Services Program	Aboriginal children under 16 with a focus on remote communities
2013-2015	National Partnership Agreement – Treating More Public Dental Patients	Public dental waiting lists

State and territory governments

The states and territories currently provide most public oral health services. For adults, access is determined largely by eligibility for a concession card, which is generally from age 18, except in Queensland, where eligibility is from 'above the age of completion of Year 10'. The type of concession card that allows access to public oral health services and the amount of co-payment varies from state to state, but the types of services available are limited to emergency oral health care and general oral health treatment. Waiting times can be long, exceeding an average of two years in some states and up to five years in some locations. Funding through the 'National Partnership Agreement on treating more public dental patients' has reduced waiting times in recent years.

Current funding for public oral health services allows for treatment of only about 20% of the eligible group, leaving some 80% without public treatment. Some seek care in the private sector, generally for relief of pain, which means that they receive only limited and compromised oral health care; some do not access any care.

For children, eligibility criteria, co-payments and level of clinical services available also vary across jurisdictions, as do models of service delivery. For example, Western Australia, Queensland and South Australia have dedicated school oral health programs, while New South Wales, Victoria, Tasmania and the Australian Capital Territory rely largely on community-based clinics, and the Northern Territory uses a mix of the two. Children in the public sector are seen as a priority with no significant waiting periods, but if they require inpatient hospital care, waiting periods can be long.

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 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 bubblers in parks, and provision of transport for the disadvantaged or elderly.

In Victoria, councils are required by the *Victorian Public Health and Wellbeing Act (2008)* to develop a Municipal Public Health and Wellbeing Plan (MPHWP). In 2013, Dental Health Services Victoria and the Department of Health developed *Improving Oral Health: Local government action guide*, which outlines evidence-informed actions that local governments can consider. This has been backed up by oral health profiles distributed to individual local governments, together with data on preventable hospital admissions in children aged 0-4 and health-related behaviours that have an impact on oral health. Out of the 79 local government authorities, 30 included oral health as a priority in their MPHWP.

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, discussed earlier, that funding for public services covers treatment of only about 20% of card holders (the eligible group). About 30% 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:

- The National Dental Foundation - www.nationaldentalfoundation.org.au
- Filling the Gap - www.fillingthegap.com.au
- Give a Smile - www.giveasmile.org.au
- Tzu Chi Foundation - www.tzuchi.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.¹⁴⁷

Not-for-profit organisations

A range of not-for-profit organisations supports the provision of dental services through transport assistance, fund raising and direct service delivery. Often these programs are established to address access issues faced by specific population groups. Examples include:

- The Royal Flying Doctor Service – www.yourhealth.flyingdoctor.org.au/health-services/dental-services/
- The Brotherhood of St Lawrence - www.bsl.org.au/Services/Dental-care.aspx

Appendix 3 – Oral health messages for the Australian public

A consistent suite of evidence-based oral health promotion messages was developed in 2009 for the Australian public⁹.

These 11 oral health promotion messages are in line with general health messages recommended by Australian health authorities.

- (1) Breast milk is best for babies and is not associated with an increased risk of dental caries.
- (2) After 6 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, e.g. fruits and vegetables
- (4) Brush teeth and along the gum line twice a day with a soft brush.
- (5) People over 18 months of age should use an appropriate fluoride toothpaste.
- (6) Fluoride mouthrinses 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 2.
- (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.

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