healthy mouths
healthy lives


Prepared by the National Advisory Committee on Oral Health
A Committee established by the Australian Health Ministers’ Conference

July 2004
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Australia’s National Oral Health Plan 2004 - 2013

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ACKNOWLEDGEMENTS

Healthy Mouths Healthy Lives: Australia’s National Oral Health Plan 2004–2013 has been prepared by the National Advisory Committee on Oral Health (NACOH), established by the Australian Health Ministers’ Conference in August 2001, and comprising representatives from the Commonwealth, State and Territory governments, professional and consumer groups, and academic and educational bodies. Membership is listed in Appendix One.


It also draws substantially on the excellent work documented in National Aboriginal and Torres Strait Islander oral health workshop: Workshop report and action plan, released in 2003 by the Commonwealth Department of Health and Ageing.

The Committee would like to thank Dr Arthur van Deth for chairing the Committee and providing leadership in the development of the National Oral Health Plan.

NACOH also expresses its appreciation to Dr Angela Kirsner of Kirsner Consulting Pty. Ltd. who undertook the task of writing the Plan.
EXECUTIVE SUMMARY

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.¹

The impact of oral disease on people’s every day lives is subtle and pervasive, influencing eating, sleep, work and social roles. The prevalence and recurrences of these impacts constitutes a silent epidemic.

Dental caries is the second most costly diet-related disease in Australia, with an economic impact comparable with that of heart disease and diabetes (AHMAC 2001). Approximately $3.7 billion was spent on dental services in the year 2001-02, representing 5.4 percent of total health expenditure (AIHW 2003a).

Despite significant improvements in the oral health of children in the last 20-30 years, there are persistent high levels of oral disease and disability among Australian adults (AIHW 2002a). Poor oral health in this country is most evident among Aboriginal and Torres Strait Islander peoples, people on low incomes, rural and remote populations, and some immigrant groups from non-English speaking background, particularly refugees (AHMAC 2001).

Oral health policy and services

The majority of dental services in Australia are funded on a private basis with or without the assistance of private dental insurance.

While the Commonwealth continues to play a direct and indirect role in the provision and financing of dental services, responsibility for the delivery of the major public programs for children and disadvantaged adults is managed by the States and Territories.

Demand from concession card holders for dental care far outstrips State and Territory dental services’ capacity to supply treatment and waiting lists are five years and more in some areas, despite significant increases in expenditure.

The ability of the public and private dental sectors to provide the dental services demanded by Australians is severely threatened by a worsening national shortage of dental providers. By 2010 there will be 1,500 fewer oral health providers (general and specialist dentists, dental therapists, dental hygienists, oral health therapists, prosthetists and dental assistants) than will be needed just to maintain current levels of access. (Spencer, Teusner, Carter, Brennan 2003)

Healthy Mouths Healthy Lives

The purpose of Healthy Mouths Healthy Lives: Australia’s National Oral Health Plan 2004–2013 (“the Plan”) is to improve health and wellbeing across the Australian population by improving oral health status and reducing the burden of oral disease. The Plan aims to help all Australians to retain as many of their teeth as possible throughout their lives, have good oral health as part of their general good health, and have access to affordable and quality oral health services.

¹ Definition adapted from the UK Department of Health (1994)
Executive Summary

Four broad themes underpin the Plan:

- recognition that oral health is an integral part of general health;
- a population health approach, with a strong focus on promoting health and the prevention and early identification of oral disease;
- access to appropriate and affordable services – health promotion, prevention, early intervention and treatment – for all Australians; and
- education to achieve a sufficient and appropriately skilled workforce, and communities that effectively support and promote oral health.

Australia’s best oral health services are equal to the best in the world. The Plan aims to spread this good practice, achieve equitable distribution of preventive and treatment services, and address the significant shortage within the oral health workforce.

Importantly, there is a strong focus on reducing the major disparities in oral health status and inequities in access to oral health care.

Broad population measures can achieve dramatic improvements in health and reductions in costs. For each $1 invested in water fluoridation, estimates of the savings in dental treatment costs alone range from $12.60 to $80, with the greatest health benefits accruing to those who are most disadvantaged. In the past 25 years fluoridation is estimated to have saved the Victorian community nearly $1 billion in avoided dental costs, lost productivity and saved leisure time (DHS 2002a).

In all areas, the Plan seeks to make the best possible use of resources, both human and financial. It will do this through:

- basing its actions on the best available evidence;
- making effective use of the full oral health team (general and specialist dentists, dental therapists, dental hygienists, oral health therapists, prosthetists and dental assistants); and
- building strong cooperation and partnerships across the health and community services sectors and beyond, to address the socio-economic factors that determine general and oral health.

The public and private oral health sectors both have a role in implementing this Plan; the public sector through its predominant focus on population health and public health care for the disadvantaged and the private sector through its role in providing dental care for the majority of Australians. The contribution of the private sector also includes the treatment of needy patients through publicly funded schemes, lowering fees for vulnerable patients, and continued support for community prevention measures (eg water fluoridation, tobacco cessation programs, health promotion).

To make sustainable gains in oral health, it is essential that consumers and communities be involved in making choices and participating in decisions about oral health, and are empowered to maintain their oral and general health and wellbeing.

The evidence base on the effectiveness and cost effectiveness of oral health intervention is sound, but it needs to include current information on the incidence, distribution and determinants of oral diseases, to ensure that resources are allocated according to greatest need. Regular national and local surveys of oral health are therefore a priority, to provide valid and up-to-date information on oral health and disease, and their determinants.

The Plan thus presents a way to move forward, to promote oral health, prevent oral disease, provide equitable access to oral health care, and deliver effective and efficient use of resources. It calls for oral health to be an integral part of health policy and funding, and for coordination and integration of oral
and general health care. At the same time, the oral health professions require a critical mass to support expertise, education and development across practitioner groups. The Plan argues for strong oral health professions with increased numbers of all types of oral health practitioners together with a vibrant and dynamic dental education sector, to support the oral and general health needs of all Australians.

Within an overarching population health framework, the Plan identifies seven interrelated areas for action, as set out in the figure below:

The Action Areas are not ranked in order of priority: all are of high priority in improving the oral health of Australians. Within each Action Area, the Plan presents national actions to achieve:

- improvements in the short term, over the next two years (2004-2006);
- change in the medium term, to be pursued over the next five years (2004 to 2009); and
- more fundamental change in the longer term, to be pursued over the next ten years (to 2013).

Actions across the seven Action Areas work to provide a sound policy base for oral health; promote health in the community and build community and health workforce capacity to achieve this; identify people with or at risk of oral disease, for effective management; improve access to affordable, preventively focused oral health services; overcome the shortage and improve the distribution of oral health practitioners; build the skill base of the oral health workforce and the capacity of the dental education sector; and improve the availability of information for planning.

To achieve results over the next five to ten years, implementation of many of these actions will need to start as soon as possible. Monitoring and evaluation of the Plan will underpin continuing review and incorporation of new priorities and areas of action, as appropriate.

Implementation of most National Actions will require the involvement of a broad range of stakeholders. For example, any increase in training of oral health providers would need to involve the States and Territories, the Commonwealth and the tertiary dental education sector. The source/s of funds for implementation of the National Actions will be a matter for resolution by the various stakeholders.

The Plan comprises a set of interrelated National Actions which collectively will ensure improvement in the oral health status and general health of the Australian community.
## SUMMARY OF NATIONAL ACTIONS

<table>
<thead>
<tr>
<th>Action Area One: Promoting Oral Health Across the Population</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Consider oral health as being integral to general health in the development of health policy and the health reform agenda.</td>
<td>Short</td>
</tr>
<tr>
<td>1.2 Extend fluoridation of public water supplies to communities across Australia with populations of 1000 or more.</td>
<td>Short</td>
</tr>
<tr>
<td>1.3 Undertake a National Adult Oral Health Survey and a National Children’s Oral Health Survey, each to be repeated every ten years.</td>
<td>Short</td>
</tr>
<tr>
<td>1.4 Undertake a consensus conference on use of discretionary sources of fluoride and other preventive agents, as a first step towards establishing an evidence-based suite of health promotion messages.</td>
<td>Short</td>
</tr>
<tr>
<td>1.5 Develop an oral health promotion database / clearing house to provide a central point for the collection and dissemination of Australian oral health policy, practice, research, resources and evidence.</td>
<td>Medium</td>
</tr>
<tr>
<td>1.6 Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team (general and specialist dentists, dental therapists, dental hygienists, oral health therapists, prosthetists and dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community.</td>
<td>Medium</td>
</tr>
<tr>
<td>1.7 Explore with the health insurance industry opportunities to structure rebates for dental treatment that support patterns of preventive dental services that have a firm evidence base.</td>
<td>Medium</td>
</tr>
<tr>
<td>1.8 Develop oral health and oral health promotion modules for inclusion in the training of health and community service practitioners and teachers.</td>
<td>Medium</td>
</tr>
<tr>
<td>1.9 Ensure that oral health is a consideration in health promotion plans at all levels of government (local, State/Territory and Commonwealth), supported by adequate resourcing, local leadership and designated responsibility for implementation.</td>
<td>Medium</td>
</tr>
<tr>
<td>1.10 Establish regular local/regional surveys of adults and children to provide information on oral health and disease, and their determinants.</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>See also:</strong></td>
<td></td>
</tr>
<tr>
<td>2.3 <em>Link with and build on existing health promotion and common risk factor approaches within sport and recreational settings (e.g. mouthguards, SunSmart, alcohol initiatives, nutrition), to promote oral health.</em></td>
<td>Medium</td>
</tr>
<tr>
<td>1.11 Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:</td>
<td>Long</td>
</tr>
<tr>
<td>☐ policy makers in health, community service and education</td>
<td></td>
</tr>
<tr>
<td>☐ other human service providers and their associations</td>
<td></td>
</tr>
<tr>
<td>☐ teachers, and</td>
<td></td>
</tr>
<tr>
<td>☐ organisations representing specific disadvantaged groups.</td>
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</table>
### Action Area Two: Children and Adolescents

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
<th>Timeframe</th>
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</table>
| 2.1    | Include a simple oral health risk assessment and provision of preventative oral health advice in:  
- the routine checks carried out by maternal and child health nurses and  
- existing home visiting programs for infants and families identified as being at risk;  
and develop such programs where they do not exist. | Short |
| 2.2    | Ensure the continuation and/or expansion of school dental services to provide regular and timely check-ups and preventively focused oral health care for children and adolescents. | Short |
| 2.3    | Link with and build on existing health promotion and common risk factor approaches within sport and recreational settings (eg mouthguards, SunSmart, alcohol initiatives, nutrition), to promote oral health. | Medium |
| 2.4    | Work with governments, industry and the media to limit the promotion and advertising of foodstuffs and beverages that are harmful to the oral health of children. | Medium |

**See also:**

- 1.6 Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthetists, dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community.  
- 1.8 Develop oral health and oral health promotion modules for inclusion in the training of health and community service practitioners and teachers.  
- 2.5 Support approaches in child care, preschools, and primary and secondary schools to develop environments (eg through curriculum, canteen, parents etc) that foster and promote oral health.  

**See also:**

- 1.11 Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:  
  - policy makers in health, community service and education  
  - other human services providers and their associations  
  - teachers, and  
  - organisations representing specific disadvantaged groups.  
- 7.10 Further develop undergraduate and postgraduate educational programs for the oral health workforce to build its capacity to work with  
  - children aged 0-5  
  - older people  
  - people with special needs  
  - cultural diversity.
<table>
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<tr>
<th>Action Area Three: Older People</th>
<th>Timeframe</th>
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<tbody>
<tr>
<td>3.1 Include an enhanced questionnaire based oral health assessment in existing assessment systems for older adults in the community (eg Home and Community Care, Aged Care Assessment Services) to identify people with, or at risk of, oral disease.</td>
<td>Short</td>
</tr>
<tr>
<td>3.2 For older people in the community who are identified as being at risk of oral disease, include support for the maintenance of oral hygiene in care programs aimed at assisting them to remain in their own homes.</td>
<td>Short</td>
</tr>
<tr>
<td>3.3 Ensure that oral screening is carried out by an oral health professional on admission to residential aged care facilities and on a regular basis.</td>
<td>Short</td>
</tr>
<tr>
<td>3.4 Require the development of a simple but practical oral health care plan as part of the overall care plan for every person in a residential aged care facility.</td>
<td>Short</td>
</tr>
<tr>
<td>3.5 Ensure that support for residential aged care facilities have the flexibility to implement the oral health component of the overall care plan including maintenance of oral hygiene and timely dental treatment where needed.</td>
<td>Short</td>
</tr>
<tr>
<td>3.6 Make affordable portable dental equipment available to public and private oral health providers to enable them to treat older people in their homes and in residential aged care facilities.</td>
<td>Short</td>
</tr>
<tr>
<td>3.7 Ensure that oral health is considered in the development of nutrition plans and programs for older people, including access to fluoridated water.</td>
<td>Short</td>
</tr>
<tr>
<td>3.8 Establish affordable and appropriate transport arrangements to enable frail older people to attend oral health clinics.</td>
<td>Short</td>
</tr>
</tbody>
</table>

**See also:**

4.1 *Using a community development approach, develop and implement targeted health promotion and preventive programs for specific socio-economically disadvantaged groups including people in rural and remote areas, the homeless, people in institutions and correctional facilities, low-income earners and their families, disadvantaged young adults and older people, and disadvantaged people from Aboriginal, Torres Strait Islander and non-English speaking backgrounds.*

3.9 Require residential aged care facilities of an agreed size to set aside a small dedicated area for the provision of a range of simple primary health services including oral health services. | Medium |

**See also:**

1.6 *Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthetists, dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community.*

1.8 *Develop oral health and oral health promotion modules for inclusion in the training of health and community service practitioners and teachers*
<table>
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<tr>
<th>Action Area Four: Low income and social disadvantage</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Using a community development approach, develop and implement targeted health promotion and preventive programs for specific socio-economically disadvantaged groups including people in rural and remote areas, the homeless, people in institutions and correctional facilities, low-income earners and their families, disadvantaged young adults and older people, and disadvantaged people from Aboriginal, Torres Strait Islander and non-English speaking backgrounds.</td>
<td>Short</td>
</tr>
<tr>
<td>4.2 Increase funding to public oral health services to enable concession card holders living in the community to have timely access to preventively focused dental care that meets the minimum standard benchmarks for oral health service provision.</td>
<td>Medium</td>
</tr>
<tr>
<td>4.3 Pilot a range of programs to explore more efficient models for the provision of timely dental care for concession card holders using the skills of the full oral health care team (general and specialist dentists, dental therapists, dental hygienists, oral health therapists, prosthhetists and dental assistants).</td>
<td>Medium</td>
</tr>
</tbody>
</table>

See also:

1.6 Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthethists, dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community. | Medium |
### See also:

1.11 Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:
- policy makers in health, community service and education
- other human services providers and their associations
- teachers, and
- organisations representing specific disadvantaged groups.

### Action Area Five: People with Special Needs

(ie. people with intellectual or physical disability, or medical or psychiatric conditions, that increase their risk of oral health problems or increase the complexity of oral health care)

5.1 Develop and implement mechanisms to identify people with special needs at their first point of contact with health services so that the implications for oral health services can be managed.

5.2 Include appropriate oral health indicators in the intake, assessment and case planning processes for those people with special needs, as well as appropriate referral pathways and mechanisms to ensure continuity of care across service systems.

### See also:

1.6 Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthodontists, dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community.

1.8 Develop oral health and oral health promotion modules for inclusion in the training of health and community service practitioners and teachers.

5.3 Implement targeted “access according to need” policies, including:
- priority access for identified groups, and
- proactive identification and follow up of young people with special needs to provide continuity of care after School Dental Service involvement.

### See also:

1.11 Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:
- policy makers in health, community service and education
- other human services providers and their associations
- teachers, and
- organisations representing specific disadvantaged groups.

7.10 Further develop undergraduate and postgraduate educational programs for the oral health workforce to build its capacity to work with:
- children aged 0-5
- older people
- people with special needs
- cultural diversity.
### Action Area Six: Aboriginal and Torres Strait Islander Peoples

Implement the National Aboriginal and Torres Strait Islander Oral Health Action Plan (Commonwealth Department of Health and Ageing 2003), including the following actions:

<table>
<thead>
<tr>
<th>Action Area</th>
<th>Description</th>
<th>Timeframe</th>
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<tbody>
<tr>
<td>6.1</td>
<td>Support the proposal to include under Medicare a biennial adult health assessment for Aboriginal and Torres Strait Islander peoples, which includes an oral examination.</td>
<td>Short</td>
</tr>
<tr>
<td>6.2</td>
<td>Provide culturally appropriate and accessible oral health services through: □ partnerships between Indigenous-specific and mainstream health services at a regional level; □ provision of patient-assisted transport schemes; □ increasing the proportion of mainstream dental services that provide culturally appropriate services.</td>
<td>Short</td>
</tr>
<tr>
<td>See also:</td>
<td>1.2 Extend fluoridation of public water supplies to communities across Australia with populations of 1000 or more.</td>
<td>Short</td>
</tr>
<tr>
<td></td>
<td>7.4 Improve recruitment and retention of oral health professionals in public dental services through enhanced professional development, improved career paths and more competitive pay scales</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>7.8 Develop and implement programs, including dedicated student places and scholarships, to increase recruitment of Aboriginal and Torres Strait Islander oral health students.</td>
<td>Medium</td>
</tr>
<tr>
<td>6.3</td>
<td>Increase oral health promotion activity for Aboriginal and Torres Strait Islander peoples by: □ developing strategies targeting Aboriginal and Torres Strait Islander oral health, both as stand alone and integral to other health promotion activities (e.g., diabetes, cardiovascular disease, tobacco and alcohol control, nutrition); □ improving access to oral hygiene materials (toothbrushes, paste, floss); □ improving access to nutritious and affordable food supply.</td>
<td>Medium</td>
</tr>
<tr>
<td>6.4</td>
<td>Foster the integration of oral health within health systems and services, particularly with respect to primary health care, by: □ inclusion of oral health into health check guidelines for well people, and recall mechanisms for people with chronic illnesses; □ integrating oral health into relevant Aboriginal and Torres Strait Islander health policy.</td>
<td>Medium</td>
</tr>
<tr>
<td>6.5</td>
<td>Improve the collection and quality of oral health information on Aboriginal and Torres Strait Islander people by: □ developing an agreed national Indigenous oral health data set; □ consolidating existing data on oral health; □ regular standardised collection and dissemination of oral health data.</td>
<td>Medium</td>
</tr>
</tbody>
</table>
6.6 Consistent with the National Aboriginal and Torres Strait Islander Workforce National Strategic Framework, increase the oral health workforce available to improve the oral health of Aboriginal and Torres Strait Islander people by:
- increasing the number of Aboriginal and Torres Strait Islander people working across the oral health professions, including provision of scholarships for Aboriginal and Torres Strait Islander students;
- clarifying roles and recognising Aboriginal and Torres Strait Islander health workers as a key component of the oral health workforce;
- addressing the role and development needs of the oral health Workforce contributing to Aboriginal and Torres Strait Islander health;
- improving training, recruitment and retention measures for oral health staff working in Aboriginal primary health services;
- expanding the role of dental therapists, dental hygienists and oral health therapists.

Action Area Seven: Workforce Development

<table>
<thead>
<tr>
<th>7.1 Increase the supply of overseas-trained dentists by:</th>
<th>Timeframe</th>
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</thead>
<tbody>
<tr>
<td>- retaining the existing qualifications that automatically enable registration of overseas-trained dentists;</td>
<td>Short</td>
</tr>
<tr>
<td>- streamlining entry for dentists trained in dental schools/faculties formerly accredited by the UK General Dental Council;</td>
<td></td>
</tr>
<tr>
<td>- reviewing the range of overseas dental qualifications that allow a dental practitioners to receive exemption from the ADC preliminary examination;</td>
<td></td>
</tr>
<tr>
<td>- expanding educational pathways to registration for overseas-trained oral health practitioners;</td>
<td></td>
</tr>
<tr>
<td>- improve the provision of information to applicants, employers and State Health Departments with regard to optimising the flexibility of existing immigration arrangements for overseas trained oral health practitioners.</td>
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</tbody>
</table>

| 7.2 To maintain current levels of access to dental services and achieve workforce self-sufficiency, increase the supply of new Australian-trained oral health practitioners by at least 150 graduates per year by increasing undergraduate student places at Australian Dental Schools. | Short     |

| 7.3 To begin to meet the additional oral health service needs identified in Healthy Mouths Healthy Lives, further expand numbers of student oral health practitioners. | Short     |

| 7.4 Improve recruitment and retention of oral health professionals in public dental services through enhanced professional development, improved career paths and more competitive pay scales. | Short     |

| 7.5 Improve recruitment and retention of oral health professionals in rural and remote areas through dedicated places for students from rural and remote backgrounds, rural scholarships, enhanced professional development, professional support, rural rotation and rural incentives. | Short     |
| 7.6  | Recognise and support the role of a suitably representative Australian Dental Council to ensure a National approach to the maintenance of a high standard of dental services. | Short |
| 7.7  | Increase the remuneration of oral health academics in tertiary education institutions to levels that are internationally competitive and sufficient to attract and retain skilled practitioners from the private sector. | Short |
| 7.8  | Develop and implement programs, including dedicated student places and scholarships, to increase recruitment of Aboriginal and Torres Strait Islander oral health students. | Medium |
| 7.9  | Fund dental schools and other oral health training programs at a level that better reflects the full cost of training oral health practitioners. | Medium |
| See also: | 1.6 Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthodontists, dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community. | Medium |
| 1.8  | Develop oral health and oral health promotion modules for inclusion in the training of health and community service practitioners and teachers. | |
| 7.10 | Further develop undergraduate and postgraduate educational programs for the oral health workforce to build its capacity to work with:  
- children aged 0-5  
- older people  
- people with special needs  
- cultural diversity. | Long |
| 7.11 | Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:  
- policy makers in health, community service and education;  
- other human services providers and their associations; and  
- teachers. | Long |
| 7.12 | Explore the provision, by State/Territory public dental services, of dental care to the general community on a full cost recovery basis to allow oral health providers in the public sector to provide a wider range of services. | Long |
### See also:

6.6 Consistent with the National Aboriginal and Torres Strait Islander Workforce National Strategic Framework, increase the oral health workforce available to improve the oral health of Aboriginal and Torres Strait Islander people by:

- increasing the number of Aboriginal and Torres Strait Islander people working across the oral health professions, including provision of scholarships for Aboriginal and Torres Strait Islander students;
- clarifying roles and recognising Aboriginal and Torres Strait Islander health workers as a key component of the oral health workforce;
- addressing the role and development needs of the oral health workforce contributing to Aboriginal and Torres Strait Islander Health;
- improving training, recruitment and retention measures for oral health staff working in Aboriginal primary health services;
- expanding the role of dental therapists, dental hygienists and oral health therapists.
AN ORAL HEALTH PLAN FOR THE 21ST CENTURY

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.¹ Yet oral diseases, particularly those affecting the teeth and gums, are among the most common health problems experienced by Australians. Dental services alone account for 5.4 percent of total health expenditure (AHMAC 2001).

The purpose of the Healthy Mouths Healthy Lives: Australia’s National Oral Health Plan 2004–2013 (“the Plan”) is to improve health and wellbeing across the Australian population by improving oral health status and reducing the burden of oral disease. The Plan aims to help all Australians to retain as many of their teeth as possible throughout their lives, have good oral health as part of their general good health, and have access to affordable and quality oral health services. Four broad themes underpin the Plan:

- recognition that oral health is an integral part of general health;
- a population health approach, with a strong focus on promoting health and the prevention and early identification of oral disease;
- access to appropriate and affordable services – health promotion, prevention, early intervention and treatment – for all Australians; and
- education to achieve a sufficient and appropriately skilled workforce, and communities that effectively support and promote oral health.

Australia’s best oral health services are equal to the best in the world. The Plan aims to spread this good practice, achieve equitable distribution of preventive and treatment services, and address the significant shortage within the oral health workforce.

Healthy Mouths Healthy Lives represents an understanding on the part of the Commonwealth, State and Territory governments, the oral health care professions and consumer groups to work co-operatively to achieve its outcomes.

Importantly, there is a strong focus on reducing the major disparities in oral health status and inequities in access to oral health care. Most oral health care is provided in the private dental sector and the Commonwealth Government 30% rebate on private health insurance will have assisted many Australians to receive timely and appropriate treatment. However, there remain a number of identifiable groups within the Australian community with poor access to oral health care and whose oral health outcomes are severely compromised as a result—notably Aboriginal and Torres Strait Islander peoples, people in low socio-economic groups, and those with special needs relating to a health condition or ageing. Rates of oral disease are high among these populations and often access to treatment is difficult. Demand for public services far outstrips the capacity to supply, and waiting lists are five years and more in some areas.

Broad population measures can achieve dramatic improvements in health and reductions in costs. For each $1 invested in water fluoridation, estimates of the savings in dental treatment costs alone range from $12.60 to $80, with the greatest health benefits accruing to those who are most disadvantaged. In the past 25 years fluoridation is estimated to have saved the Victorian community nearly $1 billion in avoided dental costs, lost productivity and saved leisure time (DHS 2002a).

¹ Definition adapted from the UK Department of Health (1994)
In all areas, the Plan seeks to make the best possible use of resources, both human and financial. It will do this through:

- basing its actions on the best available evidence;
- making effective use of the full oral health team (general and specialist dentists, dental therapists, dental hygienists, oral health therapists, prosthetists and dental assistants); and
- building strong cooperation and partnerships across the health and community services sectors and beyond, to address the socio-economic factors that determine general and oral health.

The public and private oral health sectors both have a role in implementing this Plan; the public sector through its predominant focus on population health and public health care for the disadvantaged and the private sector through its role in providing dental care for the majority of Australians. The contribution of the private sector also includes the treatment of needy patients through publicly funded schemes, lowering fees for vulnerable patients, and continued support for community prevention measures (e.g., water fluoridation, tobacco cessation programs, health promotion).

To make sustainable gains in oral health, it is essential that consumers and communities be involved in making choices and participating in decisions about oral health, and empowered to maintain their oral and general health and wellbeing.

The evidence base on the effectiveness and cost effectiveness of oral health intervention is sound, but it needs to include current information on the incidence, distribution and determinants of oral diseases, to ensure that resources are allocated according to greatest need. Regular national and local surveys of oral health are therefore a priority, to provide valid and up-to-date information on oral health and disease, and their determinants.

The Plan thus presents a way to move forward, to promote oral health, prevent oral disease, provide equitable access to oral health care, and deliver effective and efficient use of resources. It calls for oral health to be an integral part of health policy and funding, and for coordination and integration of oral and general health care. At the same time, the oral health professions require a critical mass to support expertise, education and development across practitioner groups, and the Plan argues for strong oral health professions with increased numbers of all types of oral health practitioners together with a vibrant and dynamic dental education sector, to support the oral and general health needs of all Australians.

In the recent Senate Select Committee Report on Medicare, Professor Andrew Wilson described the link between economic status and oral health:

“...This is a condition which is probably, of all the conditions in Australia, the most strongly socio-economically related. The people who have the worst oral health are the most disadvantaged in the community … there is a large amount of dental disease in the community, and we need a strategy to deal with it”. (Senate Select Committee on Medicare 2003)

**Healthy Mouths Healthy Lives** provides that strategy.
Timeframe

Within each of its Action Areas, the Plan presents national actions to achieve:

- improvements in the short term, over the next two years (2004-2006);
- change in the medium term, to be pursued over the next five years (2004 to 2009); and
- more fundamental change in the longer term, to be pursued over the next ten years (to 2013)

To achieve results over the next five or ten years, implementation of many of these actions will need to start as soon as possible. Monitoring and evaluation of the Plan will underpin continuing review and incorporation of new priorities and areas of action, as appropriate.

A population health approach

Healthy Mouths Healthy Lives adopts a population health approach to oral health, in which the programs, services and institutions of public health emphasise the prevention of disease and the health needs of the population as a whole.¹ This approach has developed in response to growing recognition of the importance of the social, economic, cultural and environmental determinants of health. A population health approach aims to systematically:

- promote health and prevent and intervene early in the pathway to disease through strategies that involve individuals, communities and whole societies;
- build individual and community capacity and provide enabling cultures and environments;
- provide a comprehensive range of high-quality, integrated health care services;
- reduce disparities in health status through equitable allocation of health resources and access to health services.

The WHO has recognised the importance of addressing poverty and inequalities in health status as a strategy for improving health overall (WHO 1995). A population health approach recognises, nevertheless, that resources are limited and that choices must be made about which interventions can be offered and to whom, and that resource allocation decisions must be based on evidence and explicit values (Commonwealth Department of Health and Aged Care 2000).

Consistent with a population health approach, Healthy Mouths Healthy Lives proposes an integrated approach involving public health and clinical services to maximise health outcomes, particularly for those with poor oral health. In this model, the selection of cost-effective, evidence-based individual and population interventions is influenced by an understanding of the oral and general health status of communities, the determinants of oral health and disease, and effective points of intervention.

Demand for oral health care services will continue to grow, in response to population growth and ageing, increased tooth retention into older age, greater awareness of the importance of oral health, and more advanced restorative procedures and technologies. A population health approach offers a way to manage this growing demand, utilising both public and private sector resources as effectively as possible, and working across sectors and communities to maximise oral health gains and promote oral health across the community.

Such an approach is consistent with national action across a wide range of health policy areas.

¹ Australian Department of Health and Ageing
Structure of the Plan

The context for Healthy Mouths Healthy Lives includes a description of oral health and the wide-ranging implications and determinants of oral disease; patterns of oral health and disease in Australia, and a brief overview of oral health policy and services in Australia.

The Plan then defines goals and objectives, and the principles underpinning them, followed by the specific Action Areas setting out outcomes, rationale, and national actions. These Action Areas are core to the Plan. They are not ranked in order of priority (see Figure 1): all are integral to improving the oral health of Australians:

- **Action Area One:** Promoting oral health across the population
- **Action Area Two:** Children and adolescents
- **Action Area Three:** Older people
- **Action Area Four:** Low income and social disadvantage
- **Action Area Five:** People with special needs
- **Action Area Six:** Aboriginal and Torres Strait Islander peoples
- **Action Area Seven:** Workforce development

Action Area One is fundamental in all other Action Areas. Action Areas Two to Six have been selected on the basis of epidemiological evidence, as areas where action is urgently needed to promote oral health and reduce major inequities, and is most likely to produce benefits for the Australian population. None of these can be adequately addressed, however, without addressing the major shortage in the oral health workforce, in Action Area Seven.

To ensure an adequate focus on those with greatest need, the Plan does not, at this stage, specifically address oral health among adults between youth and older age, other than through the broad population strategies outlined in Action Area One. This is an area for consideration in the future.
ORAL HEALTH AND ORAL DISEASE - AN OVERVIEW

What is ‘oral health’?
Oral health includes having healthy teeth and gums, but it also means that people’s lives are not affected by a range of other conditions including diseases of the oral mucosa, cancers of the mouth and throat, malocclusion, birth defects (e.g., cleft palate), temporo-mandibular joint problems, or trauma to the jaw or middle of the face.

Pain, infection and tooth loss are the most common consequences of oral disease, but it can lead to destruction of soft tissues in the mouth and, in rare cases, death. Oral disorders cause difficulties with chewing, swallowing and speech, and can disrupt sleep and productivity. They can affect the way a person looks and sounds, the face they present to the world (US Department of Health and Human Services 2000), with a significant impact on self-esteem, psychological and social wellbeing, employment, interpersonal relations, and quality of life. Tooth loss is directly associated with deteriorating diet and compromised nutrition ( Locker 1992). Figure 2 shows the wide ranging and inter-related effects of oral disease on individuals, health systems and society.

Figure 2: The impact of oral disease (source: DHS 1999)
What determines oral health?

Health - including oral health - is the outcome of a complex interaction of many different influences. These “health determinants” include biological, social, economic, cultural and environmental factors, knowledge and attitudes to health, and learned behaviours, as well as access to and availability of health services and interventions.

Most importantly, there is a strong link between socio-economic status and health, and this is reflected in patterns of oral health and disease in Australia (see below). Economic deprivation, social exclusion and some cultural differences in beliefs and behaviours can all help to create an environment where oral health suffers (UK Department of Health, 2000). At the same time, exposure to appropriate levels of fluoride in water is one of the most important factors determining good oral health (Acheson 1998). Maintenance of adequate oral hygiene is important in the prevention of periodontal diseases (DHS 2000).

A number of health conditions and diseases are associated with oral symptoms and disease. In particular, periodontal disease (disease of the gums) may contribute to cardiovascular disease, preterm birth and low birth weight, while diabetes directly affects the periodontium (the tissues of the gum that support the teeth) (AHMAC 2001). Oral disease is also associated with aspiration pneumonia, hepatitis C, HIV infection, infective endocarditis, otitis media, and nutritional deficiencies in children and older adults (AHMAC 2001).

Tooth decay, gum disease and oral cancer—the major oral diseases that are amenable to prevention—share risk factors with other major preventable diseases including cardiovascular disease, cancer, and diabetes. These shared risk factors include tobacco smoking, inappropriate diet, alcohol consumption, injuries, poor hygiene and exposure to ultraviolet radiation (Spencer 2001).

Oral health in Australia

Despite a significant reduction in dental caries (tooth decay) in the last 20-30 years, particularly in children, only some of this improvement has carried through to adulthood, and there are persistent high levels of oral disease and disability among Australian adults (AIHW 2002a). Poor oral health in this country is most evident among Aboriginal and Torres Strait Islander peoples, people on low incomes, rural and remote populations, and some immigrant groups from non-English speaking background, particularly refugees (AHMAC 2001). The oral health gains have been experienced disproportionately by those at the upper end of the socio-economic scale, and there has been increased polarisation of dental caries within the community (Downer 1994).

Dental caries is Australia’s most prevalent health problem, edentulism the third most prevalent, and periodontal disease the fifth most prevalent (AIHW 2000). Caries and periodontal disease account for 90 percent of all tooth loss (AHMAC 2001). At the last national survey of oral health, over 38% of Australians had untreated dental decay (Barnard 1993) More recent estimates suggest that 11 million people are suffering new decay each year. (Brennan & Spencer 2004) Caries is the second most costly diet-related disease in Australia, with an economic impact comparable with that of heart disease and diabetes (AHMAC 2001).

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1 Compared to hearing loss (second most prevalent, asthma (forth), iron-deficient anaemia, alcohol dependence/harmful use, osteoarthritis, chronic back pain, and depression (sixth to tenth most prevalent)
Patterns across age groups

Children: Most Australian children and adolescents have good oral health, and Australia ranks second among all OECD countries for the oral health of its children. Recent trends, however, suggest that there has been a deterioration in children’s oral health. Notably, there was a 21 percent increase in decay experience in 5-year-olds between 1996 and 1999 (Armfield et al 2003). Children in low socio-economic groups experience almost twice as much caries as those in high socio-economic groups (AHMAC 2001). Even higher rates are seen among Aboriginal and Torres Strait Islander children, who experience about twice as much caries as non-Indigenous children; and their oral health has continued to worsen over recent decades, in contrast to the improvements among their non-Indigenous counterparts.

Adolescence and early adulthood: Australians’ oral health status deteriorates rapidly in later adolescence and early adulthood, and the oral health status of Australian adults ranks second worst in the OECD (Spencer 2001). There is a four-fold increase in dental caries between 12 and 21 years of age, and almost half of all teenagers have some signs of periodontal disease. At the same time, differences in oral health between groups in the Australian community become more marked (Sanders & Spencer). Recent figures from public dental clinics (which see only people who hold a concession card) showed that young people aged 18-24 years had, on average, about 5 teeth with untreated decay (AIHW 2002b). In Queensland, nearly 20 percent of dentate young adults (18-29 years) reported that they had experienced toothache at some time during the previous four weeks (Wood & Pollard 2001).

Adulthood: While adults are experiencing less decay than they did in the 1970s, they have more untreated caries and more filled teeth (see box). Many Australian adults—especially in older age groups—have lost enough natural teeth to have a substantial effect on their oral functioning, particularly chewing and therefore diet and nutrition. Older people—an increasing population group—are, nevertheless, retaining more of their natural teeth for longer, and this healthy trend brings with it a substantial increase in the risk of tooth decay.

Among adults aged 35–44 years, trends from 1973 to 1995 showed:
- a decrease in experience of decay, from 18.0 to 13.6 teeth per person;
- an increase in number of teeth with untreated decay, from 1.0 to 2.4 teeth per person; and
- an increase in number of teeth with fillings, from 8.3 to 8.8 per person (AHMAC 2001).

Rates of edentulism (total lack of natural teeth) reflect the distribution of poor general health in the population. While about 10 percent of the Australian population is edentulous, this rises to 16 percent for the Indigenous population, and to nearly 25 percent for Health Card holders (AHMAC 2001).

Oral cancers: These cancers, affecting lips, tongue, salivary glands, gums, floor of the mouth, and back of the throat, together comprise the seventh most common cancer in Australia (AIHW & AACR 1999) and cause more deaths than cervical cancer. They account for approximately 2 percent of cancer deaths, and 3–4 percent of all cancer diagnoses in Australia (AHMAC 2001). Oral cancers are mostly diagnosed in older age groups, and affect about twice as many men as women. Many oral cancers are associated with tobacco and alcohol use, and lip cancers are mostly associated with sun exposure. There is, therefore, a strong argument for a common risk factor population health approach to prevention.
Social impact
The impact of oral disease on people’s every day lives is subtle and pervasive, influencing eating, sleep, rest and social roles. Collectively, oral diseases and disorders create substantial pain and suffering, disability and, in certain cases, death. Surveys asking about experience over the previous 12 months show, for example, that:
- many Australians experienced discomfort while eating—nearly two-thirds of those with no teeth and almost half of those with some natural teeth (AHMAC 2001);
- around 40 percent had experienced pain from teeth, gums or dentures (AHMAC 2001);
- one in four reported feeling self-conscious as a result of oral health conditions (AHMAC 2001).
- almost one in six took time off work for a dental problem during 1996 (Yanga-Mabunga 1998).

The cost and burden of oral disease
Approximately $3.7 billion were spent on dental services in the year 2001-02, representing 5.5 percent of total health expenditure (AIHW 2003b). Much of this is spent on repair and rehabilitation of tissue destroyed by dental caries and periodontal disease—diseases that are amenable to prevention through personal and public health measures of demonstrated safety and effectiveness (US Department of Health and Human Services, 2000).

In Victoria during 2000-01, dental conditions accounted for nearly 10,000 avoidable hospital admissions (given early access to appropriate services). The majority were for extractions due to dental caries, and they cost the State $19.7 million (DHS 2002b).

These avoidable admissions are substantially more common in rural areas, particularly among children. In the 0-9 year age group, admission rates are more than three times higher in rural areas compared to metropolitan areas. Furthermore, rates of admission in this age group (including preschoolers) is increasing (DHS 2001, Queensland Hospital Admitted Patient Data Collection, Queensland Health). While some children require a general anaesthetic because they have comorbid conditions, for others it is because their teeth are in such bad condition.

Inappropriate use of medical services occurs when people see a medical practitioner for oral health problems that are best managed by an oral health practitioner. Often this occurs because of lack of access to dental care. In 1998-00 in Australia estimates suggest there were over half a million encounters with medical practitioners for dental problems (Britt et al 1999). This represents use of over $10 million of Medicare resources (AHMAC 2001).

Oral disease has been shown to represent 1 percent of the Australian total disability adjusted life years (Mathers et al, 1999)—comparable with acute respiratory infection, melanoma, lymphoma, falls, and heroin or poly-drug use. This figure is almost certainly an underestimation, and re-evaluation of the disability weighting of disease based on Australian data lifted oral diseases from the 17th to 7th ranking disease/disorder (DS Brennan & AJ Spencer, personal communication 2003).
Oral health policy and services

Oral health services in Australia have developed in a piecemeal fashion, separately from general health services and largely financed from private sources (eg health funds and individuals). The result is a mix of private and public dental services, with the latter limited to provision of school dental services for children and a safety net service for disadvantaged adults; overall, a number of independent services without systematic coordination or linkages to general health services (AHMAC 2001). The predominance of privately funded dental services reinforces a perception in some quarters that oral health services are essentially elective in nature, and hence of low priority.

Public dental services

While the Commonwealth continues to play an important role, directly and indirectly, in the provision of public dental services, responsibility for the delivery of the major programs for children and disadvantaged adults is devolved to the States and Territories.

Commonwealth dental services: The Commonwealth was responsible for initiating and funding the School Dental Scheme in 1974, and the Commonwealth Dental Health Program in 1994, with the States and Territories taking responsibility for implementation. Commonwealth funding for the School Dental Scheme was rolled into general purpose grants in the late ’70s and early ’80s and funding was ceased for the Commonwealth Dental Health Program in 1996.

The Commonwealth is directly involved in oral health services through:

- Veteran’s Affairs programs, providing dental care for some 300,000 eligible people;
- the Armed Forces and Army Reserve Dental Scheme;
- university training for dentists and dental therapists, dental hygienist and oral health therapists;
- subsidised drugs prescribed by dentists under the Pharmaceutical Benefits Scheme;
- dental services provided through Community Controlled Aboriginal Medical Services, which are Commonwealth-funded;
- provision of dental services to public hospital patients through the Australian Health Care Agreement;
- some specialist oral surgery and oral radiography through Medicare;
- the Cleft Palate Scheme;
- dental services in the Christmas and Cocos Islands.

State and Territory Oral Health Services: Limited services for children began after World War 1 and expanded considerably in the late 1960s with the introduction of school-based dental care in a number of States, with most of the treatment provided by dental therapists. In 1973, the Commonwealth-funded Australian School Dental Scheme made basic dental care available to all children. While the Scheme was not means tested initially, when the Commonwealth subsequently withdrew from direct involvement in the program some States and Territories introduced co-payments for children other than the dependents of health card holders.

While most States and Territories have continued to develop their school dental services and even extend the program to some secondary school students, the proportion of children receiving check-ups and treatment through these programs is significantly lower in Victoria and New South Wales than in the smaller jurisdictions.

General oral health services for disadvantaged adults: The States and Territories limit publicly funded dental care for adults to holders of concession cards issued by Centrelink, and most jurisdictions have introduced patient co-payments for these services. There is significant variation between the jurisdictions in the per capita funding of dental care for eligible adults (see Appendix 2).
In response to research under the National Health Strategy highlighting serious problems in access to
dental care for low income earners (Dooland 1992), the Commonwealth Dental Health Program was
established in January 1994 to supplement the services for concession card holders funded by the States
and Territories. The Commonwealth Dental Health Programs reached a peak of $100 million funding in
1996 for services for concession card holders in both public and private settings, before its cessation in
December of that year.

Expenditure on public dental services by the State/Territories increased by 36% from $270 million per
annum in 1997/98 to $367 million in 2001/02 (State/Territory dental services). Despite these increases,
waiting lists for publicly funded dental care have grown considerably (see Table 1). As a result,
emergency dental care has comprised an increasing proportion of the care provided by public dental
services. This is reflected in figures from both South Australia and Victoria (see Table 2).

<table>
<thead>
<tr>
<th>Number of people</th>
<th>Waiting time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>June 1997</td>
</tr>
<tr>
<td></td>
<td>June 1997</td>
</tr>
<tr>
<td>NSW</td>
<td>140,000</td>
</tr>
<tr>
<td></td>
<td>to 58 months</td>
</tr>
<tr>
<td>Victoria</td>
<td>143,000</td>
</tr>
<tr>
<td></td>
<td>16 months</td>
</tr>
<tr>
<td>Queensland</td>
<td>69,000</td>
</tr>
<tr>
<td></td>
<td>10 months</td>
</tr>
<tr>
<td>Western Australia</td>
<td>11,000</td>
</tr>
<tr>
<td></td>
<td>8 months</td>
</tr>
<tr>
<td>South Australia</td>
<td>78,000</td>
</tr>
<tr>
<td></td>
<td>22 months</td>
</tr>
<tr>
<td>Tasmania</td>
<td>13,400</td>
</tr>
<tr>
<td></td>
<td>30 months</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>n.a.</td>
</tr>
<tr>
<td></td>
<td>n.a.</td>
</tr>
<tr>
<td>ACT</td>
<td>3,600</td>
</tr>
<tr>
<td></td>
<td>15-30 months</td>
</tr>
</tbody>
</table>

Table 1: Waiting lists for public dental care
(Note: Jurisdictions have different systems for recording waiting lists and comparisons between
State/Territories should be made with caution).
Source: State/Territory dental services. “n.a” = not available

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>New South Wales</td>
<td>239,224</td>
<td>319,045</td>
</tr>
<tr>
<td>Victoria</td>
<td>92,471</td>
<td>151,879</td>
</tr>
<tr>
<td>Queensland</td>
<td>226,066</td>
<td>274,174</td>
</tr>
<tr>
<td>Western Australia</td>
<td>37,015</td>
<td>60,570</td>
</tr>
<tr>
<td>South Australia</td>
<td>70,714</td>
<td>82,705</td>
</tr>
<tr>
<td>Tasmania</td>
<td>n.a.</td>
<td>13,123</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>Not recorded</td>
<td>7,061</td>
</tr>
<tr>
<td>ACT</td>
<td>5,234</td>
<td>7,188</td>
</tr>
</tbody>
</table>

Table 2: Visits for publicly funded “emergency” dental care
Source: personal communication State/Territory Dental Services
**Specialist dental care for disadvantaged adults:** Specialist dental services are more complex services provided mostly on referral from general dental providers. Examples of specialist services include orthodontic banding, fixed crowns and bridges, more complex surgery of the teeth and jaws, dental implants and complex periodontal (gum) treatment. The States and Territories provide a limited range of specialist dental services for concession card holders. In some States, these services are provided mainly by qualified dental specialists; in others they are provided in dental teaching hospitals as part of training programs for dental specialists.

**Population health initiatives**

**Support for dental education:** In most states, undergraduate student oral health practitioners gain their clinical experience treating concession card holders in State-funded teaching clinics. In the earlier years of the dental course, the cost of treatment in these settings is frequently greater than treatment provided by graduate oral health practitioners (source: State dental services). These costs are regarded by the States as part of their contribution to the education of the dental workforce. The States also contribute to the training of dental prosthetist, some hygienists and dental assistants through funding to the TAFE sector.

**Private dental care:** The majority of oral health services in Australia are provided and funded on a private basis, with or without the assistance of private dental insurance. A significant access issue relates to disadvantaged groups who are not eligible for public dental services and have difficulty accessing regular private oral health services due to cost. Private dental treatment costs an average of $295 per hour (ranging from $200 to $450) (ADA 2003b).

“Since 1997, the Commonwealth Government has provided premium subsidies for persons with private health insurance. Initially targeting those on low and middle incomes, this was extended in 1999 to everyone with private health insurance, followed by the “lifetime” health cover arrangements in 2000. Currently, the implicit subsidy is estimated to be over $300 million per annum.”

The 30 percent rebate may be moderating the growth in demand for public dental services from eligible adults by assisting some concession card holders to maintain private dental insurance. Approximately 2.5 million Australians on household incomes of less than $30,000 per annum have ancillary insurance (AHIA, ABS 2003) (the Henderson Poverty Line income is $26,000). However, dental insurance rates are greater among people with higher incomes and so the subsidy will be assisting more of this group (AHMAC 2001).

**Related initiatives:** Healthy Mouths Healthy Lives could be implemented in the context of a range of local, State/Territory and national initiatives in population health, and these initiatives have been taken into account in the development of the Plan.

**Healthy Mouths Healthy Lives** should act as a national framework for the development and implementation of more detailed oral health plans by all stakeholders including local community based organisations, the States and Territories, the Commonwealth, dental boards, the Australian Dental Council, the organised dental professions and the tertiary education sector.

The relationship between health inequalities and socio-economic factors has gained increasing prominence over recent years (Turrell et al 1999). The Health Inequalities Research Collaboration (HIRC) was established in 1999 to develop a health inequalities research agenda within Australia. Oral health is one of the three initial priority areas for research with HIRC.
The National Public Health Partnership (NPHP), established in 1996 and involving Commonwealth and State and Territory Governments, is responsible for identifying the strategic direction of public health priorities in Australia, including nutrition, maternal and child health, healthy ageing, injury prevention, Aboriginal and Torres Strait Islander health, and the public health workforce. The NPHP Task Group on Health Promotion for Oral Health reported in August 2000, identifying a range of health promotion initiatives aimed at a fundamental change in culture and values.

A common risk factor approach can have an impact on several diseases in a more cost-effective way. More than twenty national public health strategies are at different stages of development in Australia (including the Healthy Mouths Healthy Lives). The NPHP is currently identifying the basis for clustering strategies concerned with major chronic diseases under the umbrella of a National Chronic Disease Prevention Strategy. The Smoking, Nutrition, Alcohol and Physical Activity (SNAP) Risk Factor Framework is also being implemented within many Divisions of General Practice.

These initiatives provide the context for action under Healthy Mouths Healthy Lives: Australia’s National Oral Health Plan.
GOALS, OBJECTIVES AND PRINCIPLES

Healthy Mouths Healthy Lives: Australia’s National Oral Health Plan provides a strategic framework and plan for action to enhance the general health and wellbeing of the Australian population through improved oral health. It has the following goals and objectives:

Goals

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

Objectives

- Improve people’s capacity to achieve and maintain oral health, through effective health promotion.
- Reduce inequities in access to oral health care (prevention, early intervention and treatment), particularly for population groups who are disadvantaged in their oral health status.
- Improve the range, quality, effectiveness and efficiency of public health strategies to prevent oral disease and promote health across the Australian population.
- Reduce the risk of illness, injury, premature loss of teeth and mortality associated with oral disease in the Australian population, through supporting protective factors and targeting common risk factors.
- Develop a sustainable and appropriately trained oral health workforce, including a workforce available to improve the oral health of Aboriginal and Torres Strait Islander people.
- Provide access to culturally and linguistically appropriate oral health services for all groups, and in particular, for Aboriginal and Torres Strait Islander peoples.
- Increase community and professional awareness of oral health as an integral part of general health and wellbeing.
- Involve all public and private oral health practitioners in action to improve the general health and wellbeing of the population.
- Provide flexibility in local service delivery whilst ensuring high and measurable standards of care.
- Establish a coordinated national approach to oral health data collection, information and research.
- Adopt a nationally coordinated approach to, while maintaining local flexibility in, the planning and financing of oral health services, oral health promotion and workforce development.

Principles

- **Accessibility and appropriateness**: 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.
- **Consumer involvement** is an essential part of
  - policy development, service planning and evaluation, and
  - decision-making at the individual intervention level.
- **Changing needs across the life span** must be recognised in service planning and delivery.
- **A population health approach**, including health promotion and proactive prevention and early intervention, will maximise health gains across the community.
Working together across sectors, services and professions will address oral health promotion and care needs across the population in a coordinated and integrated way. This includes:

- a team approach involving the range of oral health practitioners; and
- a partnership approach involving a wide range of services and workers, including general medical practitioners, child health nurses, pharmacists, community nurses, teachers, aged care providers, physiotherapists, speech pathologists, community services, the media, the education sector, employer bodies and workplaces, and communities.

An evidence-based approach underpins intervention that is effective, provides the best value for money, and achieves the best outcomes at individual and population levels.

Use of the full team of oral health providers (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthetists, dental assistants) achieves effective and efficient use of resources to address oral health promotion and care needs.

A broad range of oral health workers needs to be available to provide an appropriate and multidisciplinary range of professional expertise, with exchange of skills and expertise across the staff team, to address oral health promotion and care needs.

A commitment to continuous quality improvement is a requirement of all health services through implementing the guiding principles of safety, effectiveness, appropriateness, accessibility, efficiency and consumer participation.

Aboriginal and Torres Strait Islander communities have defined a number of principles that are fundamental to work with these communities, but which also have wide application. These principles, set out on page 35, cover cultural respect, a holistic approach, health sector responsibility, community control of primary health services, working together in partnership to improve health determinants, localised decision-making, recognising health promotion as a core component of primary health care, building community and health service capacity, and accountability for health outcomes.

Monitoring and evaluation

Key performance indicators have been set to monitor the implementation and outcomes of Healthy Mouths Healthy Lives. These include process and outcome indicators specified for each Action Area, and the following overall indicators:

- Percentage of dentate population reporting a social impact (eg toothache, difficulty chewing, concerned about appearance) because of problems with teeth, mouth or gums in last 12 months by age group, living circumstance, card status, Indigenous status and special needs
- Percentage of population with untreated decay by age group, living circumstance, card status, Indigenous status and special needs
- The proportion of the dentate population with a maximum periodontal pocketing of 3.5 mm and 5.5 mm, by age
- Mean number of missing teeth and proportion of existing teeth with untreated decay by age group, living circumstance, card status, Indigenous status and special needs
- Percentage of dentate population who visited dental practitioner in last 2 years by age group, living circumstance, card status, Indigenous status and special needs
- Percentage of dentate population whose reason for visiting dental practitioner in last 12 months was for a check-up, by age group, living circumstance, card status, Indigenous status and special needs
- Number of dental practitioners per 100,000 population by indices of remoteness
- Number of curricula of undergraduate and continuing education programs for health workers that include a module on oral health
- Percentage of population by State/Territory having access to water fluoridation.

A representative group of government and non-government stakeholders should be resourced and given the task of measuring and reporting on these indicators.
ACTION AREA ONE:
PROMOTING ORAL HEALTH ACROSS THE POPULATION

Action to promote health, including oral health, across the population underpins and provides the context for action in every other Action Area.

Outcomes

Improved oral health and reduced inequalities in oral health across the Australian population, to support overall health, wellbeing and quality of life; achieved through:
- developing environments that support good oral health;
- improving people’s capacity to become and stay orally healthy;
- reducing risk of oral disease, injury, premature loss of teeth, and mortality;
- provision of timely and appropriate oral health care;
- allocating resources equitably and efficiently to achieve maximum health gains across the population.

National Action

In the short term (over the next 2 years)

1.1 Consider oral health as being integral to general health in the development of health policy and the health reform agenda.
1.2 Extend fluoridation of public water supplies to communities across Australia with populations of 1000 or more.
1.3 Undertake a National Adult Oral Health Survey and a National Children’s Oral Health Survey, each to be repeated every ten years.
1.4 Undertake a consensus conference on use of discretionary sources of fluoride and other preventive agents, as a first step towards establishing an evidence-based suite of health promotion messages.

In the medium term (over the next 5 years)

1.5 Develop an oral health promotion database / clearing house to provide a central point for the collection and dissemination of Australian oral health policy, practice, research, resources and evidence.
1.6 Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the use of the skills of the full dental team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthetists, dental assistants) in the provision of high quality, accessible and affordable dental care for the whole community.
1.7 Explore with the health insurance industry opportunities to structure rebates for dental treatment that support patterns of preventive dental services that have a firm evidence base.
1.8 Develop oral health and oral health promotion modules for inclusion in the training of health and community service practitioners and teachers.
1.9 Ensure that oral health is a consideration in health promotion plans at all levels of government (local, State/Territory and Commonwealth), supported by adequate resourcing, local leadership and designated responsibility for implementation.
1.10 Establish regular local/regional surveys of adults and children to provide information on oral health and disease, and their determinants.

See also:

2.3 (page 19) Link with and build on existing health promotion and common risk …
In the long term (ongoing—up to 10 years)

1.11 Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:

- policy makers in health, community service and education
- other human services providers and their associations
- teachers, and
- organisations representing specific disadvantaged groups.

Rationale

Oral disease affects almost all members of the Australian community at some point in their lives. New approaches are needed to respond to the wide inequalities in oral health status, the inequitable access to services, and the rising costs of health care driven by medical and dental advances, community expectations, population ageing and the increasing numbers of older people who fall into lower socio-economic groups, and the increasing prevalence of lifestyle-related diseases. A prevention and health promotion strategy needs to address oral health at both individual and population levels, based on the identified needs of communities.

Fluoridation of water supplies: Fluoridation of public water supplies is the single most effective public health measure for reducing dental caries across the population, with its most pronounced effects among those who are disadvantaged and most at risk (Acheson 1998, DHS 2000a). Fluoridation needs to be extended across Australia, particularly within rural areas. The population needed for cost-effective provision of fluoridation depends on the level of dental decay in the community. Recent analysis conducted in New Zealand suggests, on conservative assumptions, that a population of 1,000 is near the practical lower bound (Wright et al 2001).

Primary care: Australia requires a primary oral health care system that is able to provide timely and appropriate oral health care (preventive and treatment) for all, together with broader health promotion and disease prevention activities that make healthy choices easy choices. Such a system would enable dental and periodontal conditions and other conditions such as oral cancers to be identified and treated early, improving patient outcomes and reducing treatment costs.

Currently public dental services accept only concession card holders, and they face long waiting lists. Private dentistry, at an average of $295 per hour (ADA 2003b), is the only option for the rest of the population. Dental insurance can assist the 44% of the Australian population with coverage to reduce the out-of-pocket cost of private dental treatment. The Commonwealth 30 percent tax rebate on expenditure for private health insurance premiums would be assisting many lower income earners to maintain private dental insurance that would otherwise be unaffordable. Approximately 20% of people earning under $20,000 pa have dental insurance (Carter & Stewart 2003) and only 3.7% concession card holders who attend public dental clinics have private dental insurance (Carter & Stewart 2002). Whilst the Commonwealth tax rebate may be moderating the pressure on state dental programs, the majority of the tax rebate is received by higher income earners, who would not normally access public dental clinics. However, one million Australians on incomes under $20,000 have also taken out private health insurance.

The Australian Dental Association has indicated its willingness to use its resources, expertise and knowledge to assist in designing a program for the greater provision of dental services for concession card holders through the private dental sector, should such a scheme be contemplated (ADA 2003a, p.14).

A small number of health funds in NSW, Victoria, South Australia and Queensland currently operate dedicated dental clinics for members enrolled in ancillary benefits. Essential oral health care, excluding specialist care, is provided by salaried dentists with a small co-payment from members. Some funds provide examination and preventive
Promoting oral health: Health promotion seeks to improve or protect oral health through activities that include behavioural, socio-economic, environmental and policy change (WHO 1984). The Ottawa Charter for Health Promotion identifies key spheres of action: building healthy public policy and emphasising the role of all sectors in health outcomes; creating supportive environments across living, working and recreational settings; strengthening community action; developing personal skills; and reorienting health services to increase the focus on prevention and early intervention. Oral health promotion should be part of health promotion plans at local, State and Territory, and national levels. This requires broad agreement on a consistent suite of evidence-based oral health promotion messages.

Who will be involved?
- Commonwealth, State & Territory, and local governments
- Professional bodies and associations
- Oral health practitioners
- Non-government organisations
- Patients and carers
- Food industry
- GPs and other primary medical care providers
- Pharmacists
- Nutritionists
- Aged care providers
- Community services
- The media
- Employer bodies and workplaces
- Water authorities
- Consumer groups

Common risk factor approach: Oral diseases share common risk factors with all diseases targeted as National Health Priorities. In particular, inappropriate diet, tobacco smoking, alcohol consumption, and exposure to ultraviolet radiation (ie. the sun and/or sun beds) are leading causes of tooth decay, gum disease and oral cancer (Spencer 2001). An integrated, cross-sectoral approach to address common risk factors and promote protective factors could achieve significant improvements in oral and general health (Task Group on Health Promotion for Oral Health 2000).

Advocacy: Oral health providers need to take a strong advocacy role at local, regional and national levels, to ensure that oral health is an integral part of health promotion and common risk factor initiatives. At the same time, oral health practitioners should be active participants in general health promotion programs. The American Surgeon General identifies as a priority the need to change public, policy makers’ and health providers’ perceptions so that oral health becomes an accepted part of general health (US Department of Health and Human Services 2000).

Data: Accurate and up-to-date data on the prevalence of major oral diseases are basic to the planning and evaluation of personal and population health interventions, and the effective and equitable use of resources. Australia’s only National Oral Health Survey was in 1987-88.

Where will it happen?
- A range of community settings
- Health care facilities
- Education settings
- Workplaces

Linked initiatives
- National Health Priority Plans
- National Public Health Partnership
- Nutritional promotions
- The Smoking, Nutrition, Alcohol and Physical Activity (SNAP) Risk Factor Framework for General Practice
- Public Health Education and Research Program (PHERP)
## Evaluation

<table>
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<th>Process indicators</th>
<th>Outcome indicators</th>
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<td>□ National Oral Health Surveys undertaken regularly</td>
<td>□ Proportion of 6 year olds experiencing dental caries (1 or more deciduous teeth affected)</td>
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<tr>
<td>□ Local child dental epidemiological surveys in each state and territory</td>
<td>□ Mean number of deciduous teeth affected by caries in 6 year olds</td>
</tr>
<tr>
<td>□ The proportion of the population with access to optimally fluoridated water supplies</td>
<td>□ Proportion of 12 and 14 year olds experiencing dental caries (1 or more permanent teeth affected)</td>
</tr>
<tr>
<td>□ Adoption of national benchmarks for access to oral health care</td>
<td>□ Mean number of permanent teeth affected by caries in 12 and 14 year olds</td>
</tr>
<tr>
<td>□ Adoption of nationally consistent suite of oral health promotion messages.</td>
<td>□ Proportion of edentulous adults aged 35-44 years.</td>
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<tr>
<td>□ Access to oral health promotion research and resources</td>
<td>□ Proportion of edentulous adults aged 45-60 years.</td>
</tr>
<tr>
<td>□ Oral health included in general health plans and health promotion.</td>
<td>□ Proportion of dentate adults aged 35-44 years with 21 or more natural teeth</td>
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<td>□ Proportion of dentate adults aged 45-60 years with 21 or more natural teeth</td>
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<td></td>
<td>□ Proportion of persons aged 60 or more years with oral cancer</td>
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<tr>
<td></td>
<td>□ Proportion of dentate adults aged 35-44 years with irreversible periodontal pocketing (≥4 mm)</td>
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<td></td>
<td>□ Hospital separations for oral injury by age group and sex.</td>
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<td></td>
<td>□ Improved oral-health-related quality of life, as recorded by indicators such the oral health impact profile (OHIP)</td>
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ACTION AREA TWO:
CHILDREN AND ADOLESCENTS

The broad population health measures set out in Action Area One (see page 15) are basic to improving and maintaining the oral health of infants, children and young people. A population health approach provides the context for the targeted actions set out below.

Outcomes

Good oral health for all infants, children and young people, to support overall health and quality of life and underpins good oral health throughout life, to be achieved through:

- collaborative, multidisciplinary and cross-sectoral approaches to oral health education and promotion;
- regular check-ups and timely, preventively focussed oral health care for all children and adolescents;
- connecting oral health into primary health and community care systems.

National Action

In the short term (over the next 2 years)

2.1 Include a simple oral health risk assessment and provision of preventative oral health advice in:
- the routine checks carried out by maternal and child health nurses; and
- existing home visiting programs for infants and families identified as being at risk; and
develop such programs where they do not exist.

2.2 Ensure the continuation and/or expansion of school dental services to provide regular and timely check-ups and preventively focussed oral health care for children and adolescents

In the medium term (over the next 5 years)

2.3 Link with and build on existing health promotion and common risk factor approaches within sport and recreational settings (eg mouthguards, SunSmart, alcohol initiatives, nutrition), to promote oral health.

2.4 Work with governments, industry and the media to limit the promotion and advertising of foodstuffs and beverages that are harmful to the oral health of children.

See also:

1.6 (page 15) Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team....

1.8 (page 15) Develop oral health and oral health promotion modules...

In the long term (ongoing - up to 10 years)

2.5 Support approaches in child care, preschools, and primary and secondary schools to develop environments (eg through curriculum, canteen, parents etc) that foster and promote oral health.

See also:

1.11 (page 16) Build community and health workforce capacity in oral health promotion...

7.10 (page 39) Further develop undergraduate and postgraduate educational programs for the oral health workforce...
Rationale

Current knowledge suggests that oral health outcomes are likely to be best when oral health promotion and preventive action begins in the prenatal period and infancy and extends throughout life. While Australian children overall enjoy high levels of oral health and access to dental care (Spencer 2001), a small disadvantaged group of children experience a disproportionate share of early childhood caries and decay in the primary and secondary teeth. Furthermore, caries experience in children is increasing (Armfield et al 2003).

Some statistics:

- Nearly 40 percent of 6-year-olds experience some decay in their primary teeth, and 60 percent of this decay has not been treated (Armfield et al 2003).
- After two decades of improvement, the late 1990s saw a significant increase in children’s caries experience in their primary teeth (see Figure 3). Most notably, there was a 21 percent increase in decay experience in 5-year-olds between 1996 and 1999 (Armfield et al 2003).
- Children in low socio-economic groups experience almost twice as much caries as those in high socio-economic groups (AHMAC 2001).
- Aboriginal and Torres Strait Islander children have around twice the caries rates seen in non-Indigenous children (Commonwealth Department of Health and Ageing 2003), and their oral health has continued to worsen over recent decades, in contrast to the improvements seen among non-Indigenous children.
- There is a four-fold increase in caries experience between the ages of 12 and 21 years. Among public dental patients, young people aged 18-24 years had an average of about 5 teeth with untreated decay (AIHW 2002b).
- While the situation is less severe for periodontal disease, 12 percent of 15-24 year old concession card holders attending community dental clinics in Australia in 2001/02 already had periodontal pocketing of 4mm or more (AIHW 2002c).

Avoidable hospitalisation: Children aged under 10 years, particularly those at socio-economic disadvantage, are substantially more likely than other age groups to be hospitalised for dental conditions for which, given early access to appropriate services, hospitalisation could generally be avoided. Most of these admissions are for extraction of teeth due to gross dental caries. Admission for dental care is over three times more likely among rural children compared to their metropolitan counterparts (DHS 2001, Queensland Hospital Admitted Patient Data Collection, Queensland Health).

Early childhood intervention: There is rapidly growing recognition of the importance of providing support and intervention in the prenatal, infant and early childhood years to achieve the best possible developmental and health outcomes for young people (Acheson 1998, DHS 2000). A range of national early childhood intervention initiatives are in place that address the effects of early childhood health inequalities, and oral health needs to be an integral part of such initiatives. A particular focus is needed on children who experience disproportionate levels of caries; notably, Aboriginal and Torres Strait Islander children (see page 33).

School children: Provision of oral health care for school children needs to be timely, appropriate and affordable, whether it occurs in the public or private sector, and it is critically important to ensure the sustainability of existing services. School-based oral health care, an important factor in the high overall level of children’s oral health (Gaughwin et al 1999), is not equally available or accessible in all States and Territories, with the most populous States being the most severely disadvantaged. There is evidence that school-based oral health care is threatened by depreciating capital infrastructure, diminishing financial resources, and decreasing availability (Spencer 2001)

Adolescence: The years of adolescence are the time when young people strive for independence from family. As they approach adulthood, they move outside many of the structures that have
supported their health care to date. Currently, oral health declines sharply for many young people from mid adolescence, and research has shown that the highest levels of reported toothache are in 18-25 year olds (Wood & Pollard 2001). Service provision – both prevention and treatment – needs to address the particular needs and culture of the adolescent age group, and equip them with the skills and motivation to maintain oral health as they move into adulthood, even if they choose not to access services.

**Workforce skills:** Quite apart from the oral workforce shortages discussed later in this document (see page 38), the oral workforce skill base to address oral health care for children and adolescents is uneven, with particular gaps in working with young children and with adolescents. Similarly, other health workers have little training or confidence to equip them to make oral health (including appropriate referral) a routine part of general health checks.

![Figure 3: Dental caries experience of children aged 5-6 years and 12 years, 1990-1999. Source: Armfield et al 2003](image)

**Who will be involved?**
- Commonwealth Government
- State & Territory governments
- Local governments
- Professional bodies and associations
- Oral health practitioners
- Schools and tertiary educators
- Non-government organisations
- Parents and children
- Maternal and child health staff
- School dental services
- Child care workers

**Where will it happen?**
- A range of community settings
- Schools

**Linked initiatives**
- Nutritional promotions
- National Agenda for Early Childhood
- Children, Youth and Families Research Network
- Primary health initiatives at State/Territory level
- Child and Youth Health Intergovernmental Partnership
# Evaluation

<table>
<thead>
<tr>
<th>Process indicators</th>
<th>Outcome indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ The proportion of children and adolescents receiving timely dental care in line with minimum standard (see appendix 3 for proposed)</td>
<td>□ Proportion of 6 year olds experiencing dental caries (1 or more deciduous teeth affected)</td>
</tr>
<tr>
<td>□ The number of children requiring general anaesthetics for dental caries</td>
<td>□ Mean number of deciduous teeth affected by caries in 6 year olds</td>
</tr>
<tr>
<td>□ Number of courses for maternal and child health workers including oral health in their curriculum</td>
<td>□ Proportion of 12 and 14 year olds experiencing dental caries (1 or more permanent teeth affected)</td>
</tr>
<tr>
<td>□ Number of oral health promotion programs using common risk factor approaches.</td>
<td>□ Mean number of permanent teeth affected by caries in 12 and 14 year olds</td>
</tr>
<tr>
<td>□ Number of inter-sectoral programs and services incorporating oral health.</td>
<td>□ Improved oral-health-related quality of life, as recorded by indicators such the oral health impact profile (OHIP)</td>
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ACTION AREA THREE:
OLDER PEOPLE

The broad population health measures set out in Action Area One (see page 15) are basic to improving and maintaining the oral health of older people. A population health approach provides the context for the targeted actions set out below.

Note: “Older people” generally refers to people aged 65 years and older. Among Aboriginal and Torres Strait Islander people, with a life expectancy some 20 years less than the Australian average, the term “old” is considered appropriate at age 45.

Outcomes

Good oral health for older people, to help them maintain high levels of general health, quality of life, nutrition and social interaction to be achieved through:

- multidisciplinary approaches to oral health assessment and support for maintenance of oral hygiene
- improved access to affordable, timely and preventively focussed oral health care.

National Action

**In the short term (over the next 2 years)**

3.1 Include an enhanced questionnaire based oral health assessment in existing assessment systems for older adults in the community (eg Home and Community Care, Aged Care Assessment Services) to identify people with, or at risk of, oral disease.

3.2 For older people in the community who are identified as being at risk of oral disease, include support for the maintenance of oral hygiene in care programs aimed at assisting them to remain in their own homes.

3.3 Ensure that oral screening is carried out by an oral health professional on admission to residential aged care facilities and on a regular basis.

3.4 Require the development of a simple but practical oral health care plan as part of the overall care plan for every person in a residential aged care facility.

3.5 Ensure that support for residential aged care facilities have the flexibility to implement the oral health component of the overall care plan including maintenance of oral hygiene and timely dental treatment where needed.

3.6 Make affordable portable dental equipment available to public and private oral health providers to enable them to treat older people in their homes and in residential aged care facilities.

3.7 Ensure that oral health is considered in the development of nutrition plans and programs for older people, including access to fluoridated water.

3.8 Establish affordable and appropriate transport arrangements to enable frail older people to attend oral health clinics.

**See also:**

4.1 (page 27) Using a community development approach, develop and implement targeted health ..

**In the medium term (over the next 5 years)**

3.9 Require residential aged care facilities of an agreed size to set aside a small dedicated area for the provision of a range of simple primary health services including oral health services.
See also:
4.2 (page 27) Increase funding to public oral health services to enable concession card holders...
4.3 (page 27) Pilot a range of programs to explore more efficient models for the provision of timely ....
1.6 (page 15) Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team …
1.8 (page 15) Develop oral health and oral health promotion modules...

In the long term (ongoing—up to 10 years)
See also:
1.11 (page 16) Build community and health workforce capacity in oral health promotion…
7.10 (page 39) Further develop undergraduate and postgraduate educational programs for the oral health workforce…

Rationale
The number of people aged 65+ years in Australia will rise from 2.2 million in 1997 to about 4 million in 2021 (National Strategy for an Ageing Australia). Be they independent, frail, or in residential care, older people need to be able to eat and talk comfortably, be happy with their appearance, stay pain free and maintain self-esteem in their hygiene and care (Chalmers 2003).

Periodontal diseases and oral cancers are more prevalent among older people (AHMAC 2001), while the trend to the retention of natural teeth brings with it a greater need for dental maintenance. The situation can be exacerbated by the presence of a range of general medical conditions and physical or cognitive disability.

Patterns of disease:
- The 1987-8 National Oral Health Survey found that, among 60-90 year olds with natural teeth, more than 90 percent had periodontal disease (Barnard 1993).
- Diabetes predisposes to severe periodontal diseases and tooth loss (AHMAC 2001).
- With increasing retention of natural teeth, a range of chronic degenerative problems is expected to become more common, including tooth wear, tooth fracture, root caries and pulpal necrosis.
- A dry mouth—a common side-effect of medications taken by older people—dramatically increases the risk of severe dental caries (AHMAC 2001), as well as causing difficulties with eating, speaking and denture wearing (Guggenheimer & Moore 2003).

Access to care: Most older people are living independently in the community and, if they are to maintain their oral health, they require access to affordable, preventively focused dental care. Around 92% of older people continue to live independently, and therefore different types of dental strategies are needed to support people as they age. More than four in every five Australians (83 percent) aged 65+ years hold a concession card and are eligible for public dental care, but for many in these groups, long waiting lists mean that appropriate care is not available. As a result, their oral health deteriorates particularly rapidly (Chalmers et al 1999).

Oral health care planning: As people move towards their retirement years, oral health management needs to focus on care that is sustainable throughout older age in the context of the person’s general health and their financial circumstances. Particularly during the decade from age 50 to 60 years, people need to have access to preventively focused oral health care and be actively involved in choices about the management of their oral health, so they can achieve a level of oral health that can be maintained into older age and its potential for physical, cognitive and/or economic change.

Cognitive impairment: People with cognitive impairment are at particular risk of oral disease. For those living in the community, the difficulties
of maintaining adequate oral hygiene lead to high levels of caries and periodontal diseases, and deterioration is rapid and ongoing once they are admitted to residential care (Chalmers et al 2000, 2001). This has a significant impact on quality of life and increases the cost and complexity of providing oral health services in community, hospital and residential aged care settings.

**Comorbid conditions:** The extremely poor oral health of many older people also increases the cost and complexity of medical and aged care services. For example, tooth loss undermines the quality of nutrition and can cause loss of body weight (Chalmers et al 1998), while accumulation of dental plaque is linked to aspiration pneumonia (Loesche & Popatin 1998).

**Access to care:** Almost 8 percent of people aged over 70 years are in residential aged care (unpublished data, Aged Care and Ageing Division, Commonwealth Department of Health and Ageing). Current programs to assist older people to remain in their own homes provide no support for maintaining oral hygiene, while the very small scale of public dental programs that visit private homes and residential facilities means that they cannot address the need for preventively focused oral health care. However, where personal care and grooming services are provided to older people in their own homes, it would be expected that they would be assisted with cleaning their teeth or dentures as part of these services. The cost and complexity of outreach oral health care, together with the limited training in care for older people, means that few private dental providers offer this service. Lack of access to practical and affordable portable dental equipment is also a key barrier. At the same time, dental treatment in the normal dental surgery will always be less expensive than in a private home or residential aged care facility. Hence, mechanisms are needed to support the transporting of older people to dental appointments wherever this is reasonable. Lack of formal coordination between the dental & aged care sectors leaves confusion about who is responsible for residents’ oral health & oral health care.

**Workforce skills:** There is an urgent need to develop the capacity of the oral health workforce to meet the needs (including oral health promotion) of older people. A multidisciplinary team approach is needed, involving a range of oral health practitioners & other primary health care providers (medical and allied health) (Chalmers 2003).

**Standards:** The National Oral and Dental Accreditation Standards for Residential Aged Care Facilities requires that residents have timely access to appropriate oral health assessment and dental treatment. The poor oral health status of people in residential aged care facilities is clear evidence that standards are generally not being met with current approaches and the very limited availability of geriatric dental services. (Chalmers et al 1998) There is a need for an appropriate medical and oral health treatment area within residential facilities.

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### Who will be involved?
- Older adults, their families/carers and guardians
- General medical practitioners and Divisions of General Practice
- Aged care assessment teams
- All providers of aged care services to older people in the community
- Residential aged care facility and hospital staff
- Oral health professionals and their associations
- The tertiary education sector
- State/Territory and Commonwealth governments
- Aged Care Standards and Accreditation Agency

### Where will it happen?
- Public and private dental clinics
- Primary health care settings
- Private homes
- Hospitals
- Residential aged care facilities
- Residential care settings
- Tertiary education settings

### Linked initiatives
- National Strategy for an Ageing Australia
- Health Senior Initiative
- Aged Care Standards and Accreditation Agency
- Public Health Action Plan for an Ageing Australia
Evaluation

<table>
<thead>
<tr>
<th>Process indicators</th>
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<tbody>
<tr>
<td>□ The numbers of older people living independently in the community receiving timely dental care</td>
<td>□ Improved oral health for older people living independently including reduced levels of periodontal diseases and untreated dental decay</td>
</tr>
<tr>
<td>□ The proportion of “at-risk” older people living independently in the community receiving support in the maintenance of oral hygiene</td>
<td>□ Improved oral health for older people in residential aged care facilities including reduced levels of periodontal diseases and untreated dental decay</td>
</tr>
<tr>
<td>□ The proportion of older people living in residential aged care facilities who have a oral health care plan</td>
<td>□ Improved oral-health related quality of life, as recorded by indicators such the oral health impact profile (OHIP)</td>
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<tr>
<td>□ The proportion of older people in residential aged care whose oral health care needs identified in their oral health care plans are being met.</td>
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ACTION AREA FOUR:  
LOW INCOME AND SOCIAL DISADVANTAGE

The broad population health measures set out in Action Area One (see page 15) are basic to improving the oral health of people on low income and those who are socially disadvantaged. A population health approach provides the context for the targeted actions set out below.

Outcomes

Good oral health for Australians who are on low incomes and/or are socially disadvantaged, to support good general health, sustainable living and working conditions, and quality of life to be achieved through:
- improved access to affordable, timely and preventively focussed oral health care.
- a collaborative approach involving the oral health, general health care, employment and education sectors
- targeted programs for high needs groups that include environmental and lifestyle interventions
- greater national consistency in oral health goals and service standards.

National Action

In the short term (over the next 2 years)

4.1 Using a community development approach, develop and implement targeted health promotion and preventive programs for specific socio-economically disadvantaged groups including people in rural and remote areas, the homeless, people in institutions and correctional facilities, low-income earners and their families, disadvantaged young adults and older people, and disadvantaged people from Aboriginal, Torres Strait Islander and non-English speaking backgrounds.

In the medium term (over the next 5 years)

4.2 Increase funding to public oral health services to enable concession card holders living in the community to have timely access to preventively focused dental care that meets the minimum standard benchmarks for oral health service provision.

4.3 Pilot a range of programs to explore more efficient models for the provision of timely dental care for concession card holders using the skills of the full oral health care team (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthetists, dental assistants).

See also:
1.6 (page 15) Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team …

In the long term (ongoing - up to 10 years)

See also:
1.11 (page 16) Build community and health workforce capacity in oral health promotion…

Rationale

Profound disparities exist across socio-economic groups in Australia in respect to oral and general health. People of lowest socio-economic status—the poor and disadvantaged—carry the highest burden of disease. In particular, the incidence of caries and periodontal disease increases as socio-economic status decreases. These two most common oral diseases lead to poor social and health outcomes in vulnerable populations. Both are amenable to prevention using safe and effective measures.
Socio-economically disadvantaged groups include Indigenous Australians, a significant proportion of people living in rural and remote areas, the homeless, people in institutions or correctional facilities, low-income earners and their families, some young adults and older people, and some people from non-English speaking backgrounds. (People with chronic illness or disability, also often socioeconomically disadvantaged, are considered under “Action Area Five: People with Special Needs”, page 30.)

**Some statistics:** Data provided by the Australian Institute of Health and Welfare Dental Statistics and Research Unit show that:

- Low-income adults without private dental insurance are 25 times more likely to have had all their teeth extracted than high-income adults with insurance. Concession card holders have 3.5 less teeth on average than non-card holders (AIHW 2001).
- Health Card-holders who visit public dental clinics are at least twice as likely to experience toothache, to avoid certain foods and to suffer from the social embarrassment of bad teeth, compared with non-card holders (Carter & Stewart 2003).
- Child dependants of card holders have over 50 percent more decayed teeth than dependants of non-card holders (AIHW 2003b).
- Rural adults are nearly one-and-a-half times more likely to have no natural teeth than the general population, while elderly rural card holders (70+ years) are three times more likely to have no teeth than city-dwelling non-card holders (AIHW 2002d).

**Risk and protective factors:** Factors that contribute to the profound disparities in health status (including oral health) include income, age, social class, education, mental illness, drug and alcohol misuse, cultural identity and ethnicity. Protective factors include supportive environments and personal relationships, better education, access and affordability of services and the provision of effective public health measures such as fluoridation (Turrell et al 1999). Oral health needs to be an integral part of coalitions and leadership at a national level to address broad health outcomes and health determinants that have a disproportionate impact on low income groups.

**Access to care:** People with the poorest oral health should have greater access to care. Oral health care, however, is difficult to access for those on low incomes, with often years-long waiting lists for public care, while private care (at an average of $295 per hour (ADA 2003b)) is often prohibitively expensive. Even co-payments for public services may be difficult for some people, leading them to avoid or delay dental care. The substantial barriers to better public oral health outcomes include service rationing of oral health care and marginalisation of oral health in policy and funding. Dental services are one of the least subsidised areas of health (AHMAC 2001). Only one in five Health Care card holders receives dental care from a public dental clinic in any one year (AIHW 2001).

**Who pays?** Most dental care in Australia is financed by individuals and families either directly or through subsidisation. Health insurance cover is a major factor determining use of private dental services (although the out-of-pocket expenses for dental care are proportionately higher than for medical services). Insurance is much more common among higher socio-economic groups, who thus derive the majority of the benefits of the Commonwealth’s subsidy of health insurance (Spencer 2001). However, one million Australians on incomes under $20,000 have also taken out private health insurance.

“**Working poor**: There are unmet oral health needs for a substantial number of low income or “middle” Australians who are not eligible for public dental services. Twenty six percent of people not eligible for public dental care report that they delay or avoid dental treatment because of cost (Carter & Stewart 2003).

**Immigrant populations:** While the health of immigrants is generally at least as good as that of the Australian population, some groups of non-English speaking background—including some new arrivals in Australia—experience socio-economic disadvantage that is associated with poorer health status. Barriers include lack of knowledge of available services, language
differences, and varying cultural attitudes to health services.

**Refugees:** The oral health needs of recently arrived refugees are among the highest in the country, due to poor diet and lack of preventive measures in their countries of origin, compounded in Australia by initial high levels of unemployment, language and cultural differences, and the effects of past torture and trauma. Restoring health, including oral health is part of the healing process for these people.

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### Who will be involved?
- People who are currently eligible for public sector services
- Low income and socially disadvantaged Australians
- Public and private providers
- Allied health professionals
- Multicultural health workers
- Non-government and community based organisations including consumer groups
- Commonwealth, State, Territory and local governments
- Non-government organisations supporting high needs groups
- Organisations / agencies that assist new arrivals under Humanitarian and Refugee Programs

### Where will it happen?
- Oral health care settings, both public and private
- Residential aged care facilities
- Retirement homes and villages
- Schools and community facilities
- Training and educational settings
- Migrant resource centres
- Correctional facilities

### Linked initiatives
- National Health Priority Plans
- National Public Health Partnership

### Evaluation

<table>
<thead>
<tr>
<th>Process indicators</th>
<th>Outcome indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Increased proportion of concession card holders receiving access to timely, preventively focused dental care.</td>
<td>□ Reduction in backlog of dental needs and symptom experience among concession card holders</td>
</tr>
<tr>
<td>□ Increased uptake of health promotion programs by target groups</td>
<td>□ Reduction in prevalence of dental caries, periodontal disease and tooth loss among concession card holders</td>
</tr>
<tr>
<td>□ Undertaking of pilot programs to explore the more efficient models of dental care involving the skills of the full oral health care team.</td>
<td>□ Reduction of oral health inequalities across population</td>
</tr>
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<td></td>
<td>□ Improved oral-health related quality of life, as recorded by indicators such the oral health impact profile (OHIP)</td>
</tr>
</tbody>
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ACTION AREA FIVE: 
PEOPLE WITH SPECIAL NEEDS

The broad population health measures set out in Action Area One (see page 15) are basic to improving and maintaining the oral health of people with special needs. A population health approach provides the context for the targeted actions set out below.

Note: “Special needs” refers to people with intellectual or physical disability, or medical or psychiatric conditions, that increase their risk of oral health problems or increase the complexity of oral health care.

Outcomes

Good oral health for people with special needs, to support their overall health, independence and quality of life to be achieved through:

- collaborative approaches across health, community services and peak bodies for people with special needs;
- supportive oral health care settings that are physically and geographically accessible;
- improved capacity among service providers and oral health practitioners to meet the oral health needs of people with special needs;
- access according to need (including priority access where appropriate), supported by appropriate funding/resourcing arrangements;
- targeted programs for specific and/or high needs groups;
- an oral health promotion and preventive approach.

National Action

In the short term (over the next 2 years)

5.1 Develop and implement mechanisms to identify people with special needs at their first point of contact with health services so that the implications for oral health services can be managed.

In the medium term (over the next 5 years)

5.2 Include appropriate oral health indicators in the intake, assessment and case planning processes for those people with special needs, as well as appropriate referral pathways and mechanisms to ensure continuity of care across service systems.

See also:

1.6 (page 15) Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team …
1.8 (page 15) Develop oral health and oral health promotion modules…

In the long term (ongoing—up to 10 years)

5.3 Implement targeted “access according to need” policies, including:

- priority access for identified groups, and
- proactive identification and follow up of young people with special needs to provide continuity of care after School Dental Service involvement.

See also:

1.11 (page 16) Build community and health workforce capacity in oral health promotion…
7.10 (page 39) Further develop undergraduate and postgraduate educational programs for the oral health workforce…
Rationale

While there have been overall improvements in oral health across the Australian population over the last two decades, the gap between the oral health status of the advantaged and the disadvantaged is substantial and increasing. People with special needs experience substantially higher levels of oral disease, with considerably less access to treatment.

People with special needs include those with mental illness, chronic physical conditions, intellectual or physical disabilities, substance use problems, or psycho-social issues (e.g., torture and trauma); and people whose health creates special circumstances surrounding their oral care, including people who are terminally ill, those with a blood-borne disease (HIV-AIDS, Hepatitis C), or where oral health influences the outcome of other treatment (e.g., heart surgery). In addition to socio-economic disadvantage, these people have further problems that make them more vulnerable to oral disease or face additional barriers to accessing dental care.

How many people are affected? There are 2.39 million people aged under 65 with at least one disability (AIHW 2003a). The following provides numbers categorised by main disability:
- Intellectual – 0.21 million
- Psychiatric – 0.20 million
- Sensory/speech – 0.24 million
- Acquired brain injury – 0.04 million
- Physical/diverse – 1.71 million

There are no published data to support accurate estimates of the numbers whose disability would increase the risk of oral health problems or the complexity of oral health care. Based on consultation with clinicians, it is estimated that around 1 million people would be in the “special need” category for oral health. In developing more detailed plans in the future, it will be important that research is undertaken to identify more accurately the numbers of people in this category and their treatment needs.

Access to care: For people in supported accommodation, the move from institutions to community-based housing has meant that many cannot access public dental services which, in the past, cared for residents in institutions. These people now encounter many barriers when trying to access either private or public dental care (Chalmers, 1999).

Potential approaches: Two complementary approaches have emerged to improve the overall oral health outcomes for special needs groups:
- A strengthening of the priority given to policies and programs that target those groups in the population who are most vulnerable;
- A preventive approach through the integration of dental and other health care, and regular oral health promotion/prevention and maintenance care activities, with recall according to need, initially targeting younger vulnerable people.

A disabling condition may place people at increased risk both of oral disease itself and/or during treatment for that disease. There is, therefore, a compelling need to give priority to their oral health care, to ensure effective preventive care and early intervention.

Workforce skills: There is a need to develop the capacity of the oral health workforce to meet the needs (including oral health promotion) of people with special needs.

A multidisciplinary team approach is needed, involving a range of oral health practitioners and other primary health care providers (medical and allied health) (Chalmers 2003).
Who will be involved?
- People with special needs and their carers
- School and community dental services
- Mental health services
- Drug treatment services
- Disability services
- Supported accommodation services
- Organisations / agencies that assist new arrivals under Humanitarian and Refugee Programs
- Peak bodies, consumer groups and advocacy bodies for people with particular health conditions
- Oral health practitioners
- Tertiary education services
- Hospitals
- Primary health care practitioners, allied health workers (eg occupational therapists, speech pathologists, nurses)
- Social workers and counsellors

Where will it happen?
- Within educational, social, housing, employment and counselling services.
- Dental schools
- Public dental services, including the school dental services and community dental services

Linked initiatives
- National Mental Health Strategy
- National Drug Strategy

Evaluation

<table>
<thead>
<tr>
<th>Process indicators</th>
<th>Outcome indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The adequate recording of oral health indicators at intake and assessment of people with special needs</td>
<td>- Reduction in backlog of dental needs and symptom experience among those with special needs</td>
</tr>
<tr>
<td>- Identification of and contact with a dental care provider in the case management of those with special needs</td>
<td>- Improved oral health-related quality of life</td>
</tr>
<tr>
<td>- Implementation of priority access for people with special needs within public dental services</td>
<td>- Improved oral-health-related quality of life, as recorded by indicators such as the oral health impact profile (OHIP)</td>
</tr>
<tr>
<td>- Implementation of program targeting younger vulnerable people with special needs, including recall according to need</td>
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ACTION AREA SIX:
ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES

The broad population health measures set out in Action Area One (see page 15) are basic to improving the oral health of Aboriginal and Torres Strait Islander peoples, and provide the context for the targeted actions set out below.

Outcomes

Good oral health for Aboriginal and Torres Strait Islander peoples, commensurate with that of the overall Australian population, which supports good health and quality of life; achieved in culturally supportive ways through:

▫ enhanced understanding of Indigenous health issues in the community;
▫ collaborative approaches to oral health planning and delivery;
▫ improved public health measures that address oral health;
▫ local and timely access, according to need, to affordable, culturally appropriate dental care; and
▫ improved collection, quality and dissemination of oral health information about Aboriginal and Torres Strait Islander people.

National Action

Implement the National Aboriginal and Torres Strait Islander Oral Health Action Plan (Commonwealth Department of Health and Ageing 2003), including the following actions:

In the short term (over the next 2 years)

6.1 Support the proposal to include under Medicare a biennial adult health assessment for Aboriginal and Torres Strait Islander peoples, which includes an oral examination.

6.2 Provide culturally appropriate and accessible oral health services through:

▫ partnerships between Indigenous-specific and mainstream health services at a regional level;
▫ provision of patient-assisted transport schemes;
▫ increasing the proportion of mainstream dental services that provide culturally appropriate services.

See also:

1.2 (page 15) Extend fluoridation of public water supplies...
7.4 (page 38) Improve recruitment and retention of oral health professionals in public dental services...
7.8 (page 39) Develop and implement programs, including dedicated student places and scholarships...

In the medium term (over the next 5 years)

6.3 Increase oral health promotion activity for Aboriginal and Torres Strait Islander peoples by:

▫ developing strategies targeting Aboriginal and Torres Strait Islander oral health, both as stand alone and integral to other health promotion activities (eg diabetes, cardiovascular disease, tobacco and alcohol control, nutrition);
▫ improving access to oral hygiene materials (toothbrushes, paste, floss);
▫ improving access to a nutritious and affordable food supply.

6.4 Foster the integration of oral health within health systems and services, particularly with respect to primary health care, by:

▫ inclusion of oral health into health check guidelines for well people, and recall mechanisms for people with chronic illnesses
▫ integrating oral health into relevant Aboriginal and Torres Strait Islander health policy.

6.5 Improve the collection and quality of oral health information on Aboriginal and Torres Strait Islander people by:

▫ developing an agreed national Indigenous oral health data set;
▫ consolidating existing data on oral health;
▫ regular standardised collection and dissemination of oral health data.
In the long term (ongoing—up to 10 years)

6.6 Consistent with the National Aboriginal and Torres Strait Islander Workforce National Strategic Framework, increase the oral health workforce available to improve the oral health of Aboriginal and Torres Strait Islander people by:

- increasing the number of Aboriginal and Torres Strait Islander people working across the oral health professions, including provision of scholarships for Aboriginal and Torres Strait Islander students;
- clarifying roles and recognising Aboriginal and Torres Strait Islander health workers as a key component of the oral health workforce;
- addressing the role and development needs of the oral health workforce contributing to Aboriginal and Torres Strait Islander health;
- improving training, recruitment and retention measures for oral health staff working in Aboriginal primary health services;
- expanding the role of dental therapists, dental hygienists and oral health therapists.

Rationale

Traditionally, Aboriginal and Torres Strait Islander peoples experienced good oral health, with minimal oral diseases. With the change in lifestyle and dependence on new introduced foods, oral diseases are now common in most Aboriginal and Torres Strait Islander communities, comprising one aspect of the many serious health problems experienced by Aboriginal and Torres Strait Islander peoples. Aboriginal and Torres Strait Islander peoples comprise 2.4 percent of the total Australian population, based on 1996 Census figures, with almost 26.5 percent living in areas classified as rural and remote, compared to 2 percent of the total population (ABS and AIHW 2003).

Compared to the overall Australian population of similar age, among Aboriginal and Torres Strait Islander peoples:

- children generally have more than twice the caries experience and a greater proportion of untreated caries;
- adults have more missing teeth; and
- periodontal health is worse, with poor periodontal health evident in younger populations.

In 2002, a workshop was held on Aboriginal and Torres Strait Islander Oral Health, under the auspices of the National Aboriginal and Torres Strait Islander Health Council and the Standing Committee of Aboriginal and Torres Strait Islander Health. The National Aboriginal and Torres Strait Islander Oral Health Action Plan developed at that workshop (Commonwealth Department of Health and Ageing 2003) is a major step towards addressing the oral health needs of these populations, and forms the basis of this Healthy Mouths Healthy Lives Action Area.

Risk factors: Oral health in Aboriginal and Torres Strait Islander communities, particularly in rural and remote locations, is affected by factors that operate from infancy through to old age, including water quality and fluoridation, diet, smoking, alcohol consumption, stress, infection, the cost and availability of oral hygiene items, the availability of dental services, and transport over distance to those services that exist.

Emerging evidence indicates that oral conditions share common risk factors with other diseases and that poor oral health occurs simultaneously with a range of chronic diseases. The recent report from the Australian Health Ministers’ Advisory Council (AHMAC) on oral health identifies associations between oral diseases and cardiovascular disease, cerebrovascular disease, diabetes, preterm and low birth weight babies, aspiration pneumonia, blood-borne disease, infective endocarditis, otitis media,
and nutritional deficiencies in children and older adults. A number of these conditions—notably diabetes and cardiovascular disease—contribute to the poor health status of Aboriginal and Torres Strait Islander peoples, and comorbidity with oral disease is common. In 1995, the reported rate of diabetes was four times higher among Indigenous people aged 15 years and over than for the general population; and the differential was substantially greater among those under 55 years (AIHW 2002a).

**Life expectancy:** Many Aboriginal and Torres Strait Islander people do not reach “older age” in conventional terms with a life expectancy some 20 years less than the Australian average. Poor oral health contributes to this reduced life expectancy as well as to quality of life.

**Workforce:** Recruitment and retention of oral health practitioners, including Indigenous providers, is becoming increasingly difficult in rural and remote regions, where a substantial proportion of Aboriginal and Torres Strait Islander people live. Experience across Aboriginal and Torres Strait Islander health emphasises the importance of involving Indigenous practitioners in health care delivery. There is also a need for non-Indigenous workers to be trained to meet the needs of Aboriginal and Torres Strait Islander people.

**Principles for action**
The National Aboriginal and Torres Strait Islander Oral Health Action Plan (Commonwealth Department of Health and Ageing 2003) is based on nine principles outlined in the National Strategic Framework for Aboriginal and Torres Strait Islander Health:

- **Cultural respect:** ensuring that the cultural diversity, rights, views, values and expectations of Aboriginal and Torres Strait Islander peoples are respected in the delivery of culturally appropriate services.
- **A holistic approach:** recognising that the improvement of Aboriginal and Torres Strait Islander health status must include attention to physical, spiritual, cultural, emotional and social well-being, community capacity and governance.
- **Health sector responsibility:** improving the health of Aboriginal and Torres Strait Islander individuals and communities is a core responsibility and a high priority for the whole health sector. Making all services responsive to the needs of Aboriginal and Torres Strait Islander people will provide greater choice in the services they are able to use.
- **Community control of primary health care services:** supporting the Aboriginal community controlled health sector in recognition of its demonstrated effectiveness in providing appropriate and accessible health services to a range of Aboriginal communities and its role as a major provider within the comprehensive primary health care context. Supporting community decision-making, participation and control as a fundamental component of the health system that ensures health services for Aboriginal and Torres Strait Islander people are provided in a holistic and culturally sensitive way.
- **Working together:** combining the efforts of government, non-government and private organisation within and outside the health sector, and in partnership with the Aboriginal and Torres Strait Islander health sector, provides the best opportunity to improve the determinants of health.
- **Localised decision-making:** health authorities devolving decision-making capacity to local Aboriginal and Torres Strait Islander communities to define their health needs and priorities and arrange for them to be met in a culturally appropriate way in collaboration with Aboriginal and Torres Strait Islander specific and mainstream health services.
- **Promoting good health:** recognising that health promotion and illness prevention is a fundamental component of comprehensive primary health care and must be a core activity for specific and mainstream health services.
- **Building the capacity of health services and community:** strengthening health services and building community expertise to respond to health needs and take responsibility for health outcomes. This includes effectively equipping staff with appropriate cultural knowledge and clinical expertise, building
physical, human and intellectual infrastructure, and fostering leadership, governance and financial management.

- **Accountability for health outcomes:**
  this includes accountability for services provided and for effective use of funds by both community controlled and mainstream services.

Governments are accountable for effective resource application through long-term funding and meaningful planning and service development in genuine partnership with communities. Ultimately, government is responsible for ensuring that all Australians have access to appropriate health care.

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**Who will be involved?**

- Aboriginal and Torres Strait Islander people
- Aboriginal health workers
- General medical practitioners
- Oral health practitioners and their professional associations
- The tertiary education sector
- The primary and secondary education sectors
- Rural and remote media
- State/Territory and Commonwealth governments
- National Aboriginal Community Controlled Health Organisation
- Standing Committee on Aboriginal and Torres Strait Islander Health

**Where will it happen?**

- Aboriginal and Torres Strait Islander communities
- Aboriginal community controlled health services
- Schools, preschools and child care settings
- Maternal and child health settings
- Dental clinics
- Health care settings and services
- Tertiary education settings

**Linked initiatives**

- National Strategic Framework for Aboriginal and Torres Strait Islander Health
- National Aboriginal Health Strategy
- National Aboriginal and Torres Strait Islander Nutrition Strategy and Action Plan
- The Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework
- The NHMRC Road Map: A Strategic Framework for Improving Aboriginal and Torres Strait Islander Health through Research
- National Public Health Partnership
- Patient-assisted Transport Scheme
- Primary Health Care Access Program
- National Rural Health Alliance
Evaluation

*Note:* These indicators may need to be adapted to ensure consistency with the National Aboriginal and Torres Strait Islander Health Performance Framework currently under development.

<table>
<thead>
<tr>
<th>Process indicators</th>
<th>Outcome indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Percentage of oral health staff in the public sector who have undergone cultural awareness training</td>
<td>□ Reduction in backlog of dental needs and symptom experience among Aboriginal and Torres Strait Islander people</td>
</tr>
<tr>
<td>□ Percentage of Aboriginal children having general anaesthetics for oral health problems</td>
<td>□ Reduction in prevalence of oral diseases among Aboriginal and Torres Strait Islander people including dental caries and periodontal diseases</td>
</tr>
<tr>
<td>□ Percentage of Aboriginal communities with access to fluoridated drinking water</td>
<td>□ Reduction of oral health inequalities in oral health between Aboriginal and Torres Strait Islander people and the rest of the Australian population</td>
</tr>
<tr>
<td>□ Percentage of Aboriginal Health Workers who have received oral health training</td>
<td>□ Improved oral-health-related quality of life, as recorded by indicators such the oral health impact profile (OHIP)</td>
</tr>
<tr>
<td>□ Publication of regular reports from the Indigenous oral health data set</td>
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<tr>
<td>□ Number of Aboriginal persons in oral health courses in Australian universities</td>
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</table>
ACTION AREA SEVEN: WORKFORCE DEVELOPMENT

Outcomes

A sufficient, sustainable and appropriately skilled labour force to meet identified oral health needs across the Australian population, including:

☐ consistent national planning, across all States and Territories

☐ an appropriate aggregate number and mix of oral health practitioners (general and specialist dentists, dental hygienists, dental therapists, oral health therapists, prosthetists, dental technicians, dental assistants);

☐ an equitable distribution of dental practitioners, geographically and across the public and private sectors, with reference to the needs of children, older people, low income and socially disadvantaged, people with special needs and Aboriginal and Torres Strait Islanders;

☐ involvement of other health professionals in aspects of oral health promotion, disease prevention, and identification and management of oral health concerns;

☐ undergraduate, post-graduate and continuing education programs, of high standard, for oral health practitioners;

☐ increased numbers of Aboriginal and Torres Strait Islander oral health practitioners and increased oral health promotion skills among generalist Aboriginal and Torres Strait Islander health workers.

National Action

In the short term (over the next 2 years)

7.1 Increase the supply of overseas-trained dentists by:

☐ retaining the existing qualifications that automatically enable registration of overseas-trained dentists;

☐ streamlining entry for dentists trained in dental schools/faculties formerly accredited by the UK General Dental Council;

☐ reviewing the range of overseas dental qualifications that allow a dental practitioner to receive exemption from the ADC preliminary examination;

☐ expanding educational pathways to registration for overseas-trained oral health practitioners;

☐ improve the provision of information to applicants, employers and state health departments with regard to optimising the flexibility of existing immigration arrangements for overseas-trained oral health practitioners.

7.2 To maintain current levels of access to dental services and achieve workforce self-sufficiency, increase the supply of new Australian-trained oral health practitioners by at least 150 graduates per year by increasing undergraduate student places at Australian Dental Schools.

7.3 To begin to meet the additional oral health service needs identified in Healthy Mouths Healthy Lives, further expand numbers of student oral health practitioners.

7.4 Improve recruitment and retention of oral health professionals in public dental services through enhanced professional development, improved career paths and more competitive pay scales.

7.5 Improve recruitment and retention of oral health professionals in rural and remote areas through dedicated places for students from rural and remote backgrounds, rural scholarships, enhanced professional development, professional support, rural rotation and rural incentives.

7.6 Recognise and support the role of a suitably representative Australian Dental Council to ensure a National approach to the maintenance of a high standard of dental services and their accessibility to the Australian community.

7.7 Increase the remuneration of oral health academics in tertiary education institutions to levels that are internationally competitive and sufficient to attract and retain skilled practitioners from the private sector.
In the medium term (over the next 5 years)

7.8 Develop and implement programs, including dedicated student places and scholarships, to increase recruitment of Aboriginal and Torres Strait Islander oral health students.

7.9 Fund dental schools and other oral health training programs at a level that better reflects the full cost of training oral health practitioners.

See also:

1.6 (page 15) Ensure State/Territory Dental Acts, Regulations and Codes of Practice do not impose barriers to the full use of the skills of the whole dental team …

1.8 (page 15) Develop oral health and oral health promotion modules…

In the long term (ongoing - up to 10 years)

7.10 Further develop undergraduate and postgraduate educational programs for the oral health workforce to build its capacity to work with:

- children aged 0-5
- older people
- people with special needs
- cultural diversity.

7.11 Build community and health workforce capacity in oral health and oral health promotion by collaboration of the oral health sector with:

- policy makers in health, community service and education;
- other human service providers and their associations; and
- teachers.

7.12 Explore the provision, by State/Territory public dental services, of dental care to the general community on a full cost recovery basis to allow oral health providers in the public sector to provide a wider range of services.

See also:

6.6 (Page 34) Consistent with the National Aboriginal and Torres Strait Islander Workforce National Strategic Framework, increase the oral health workforce available to improve the oral health of Aboriginal and Torres Strait Islander people by…

Rationale

The number of oral health practitioners (general and specialist dentists, dental therapists, dental hygienists, oral health therapists and dental prosthetists) across Australia falls short of the numbers required to meet current need. The ability of the dental workforce to meet demand for dental services in both the private and public dental sectors is also deteriorating. Australia was ranked 19th in terms of practising dentists per 100,000 population out of 29 OECD countries for which data was available (AIHW, Dental Labour Force Australia 2000).

As a result, many Australians access dental care, if it is available at all, only in emergencies or when advanced oral disease is present. This leaves little opportunity for preventive care and oral health promotion, and treatment tends to focus on extraction rather than restoration of teeth. The poor health outcomes of this pattern of care are documented elsewhere in this Plan.

Capacity to supply services

In 2000, dentists made up just less than 80% of oral health practitioners. There were 8,991 dentists working in the public and private sectors in Australia, at an overall rate of 49.2 dentists per 100,000 population. Distribution is very uneven across the States and Territories, ranging from 25.3 dentists per 100,000 in Tasmania to 59.3 in the Australian Capital Territory. In areas such as the Northern Territory and Tasmania, long-term shortages of dentists are particularly acute and are exacerbated by the lack of a dental school. The workforce shortage is acute in the public dental
sector, in rural and remote areas, and for Aboriginal and Torres Strait Islander communities. At current levels of training and immigration, projections indicate that, between 2000 and 2010:

- The number of dentists practising will increase by 13.9 percent from 8,991 to 10,239, marginally exceeding population growth; but capacity to supply dental visits will increase by only 3.9 percent, to 25 million visits, as a result of demographic changes in the dentist labour force.
- Numbers of hygienists will increase, but numbers of therapists and prosthetists will decrease, resulting in a marginal increase of only 1.5 percent in the capacity of this section of the workforce to supply visits.
- In total, capacity to supply dental visits will increase to 29.4 million. This will fall considerably short of demand. If trends continue at even half the pace observed from 1983 to 1998, then demand for dental visits will increase from 23.8 million in 1995 to 33.2 million in 2010, leaving an aggregate shortage of supply of some 1500 providers. (Spencer et al 2003) (Teusner & Spencer 2003)

These projections take no account of the conversion of unmet treatment need to demand among disadvantaged groups or the increased demand likely to arise from the ageing population in Australia, detailed in other sections of this Plan.

The mix of providers
To improve oral health outcomes, dental practitioners and service systems need to expand their focus to address, in a systematic way, population health issues such as the promotion of a dentally healthy lifestyle and behaviours, and the early identification and treatment of oral health problems.

This requires a greater team approach within dental practice, involving general and specialists dentists and other oral health practitioners—hygienists, therapists, prosthetists and others as appropriate. Greater integration of the range of oral health practitioner education has the potential to foster team dentistry, as well as retaining flexibility in education and training capacity to meet changing population needs. There are a number of opportunities to make better use of the various members of the oral health workforce, including:

- increasing the utilisation of the dental therapist/hygienist workforce to increase the capacity for primary and maintenance oral health care including health promotion; and
- more effective use of the existing workforce, for example, dental assistants providing oral health education and oral radiography.

There is considerable scope for other primary health care providers (eg. GPs; community nurses; maternal and child health nurses; child, welfare and aged care workers) to play an active promotion and prevention role in relation to oral health. This could include endorsement and promotion of evidence-based practices that support oral health (eg fluoride toothpastes, diet), and referral to oral health services as appropriate. Such involvement requires:

- enhanced oral health components in the training programs of these health providers; and
- public health organisations to promote interdisciplinary service planning.

Achieving workforce self-sufficiency – the longer term solution
A dynamic dental educational sector, together with a vibrant research and development sector, is fundamental to achieving workforce self-sufficiency, excellence, efficiency and flexibility in oral health care in Australia. Currently in Australia this sector faces substantial challenges:

- The rate of graduates from Australian dental schools is about one-third lower than during the 1970s and at its lowest since the Second World War. This threatens the viability of smaller dental schools.
- Oral health under-graduate courses are resource-intensive courses, whether at universities or at Technical and Further Education (TAFE) institutions. Further consideration of funding at the faculty level will need to be considered if dental schools are to sustain and increase the number of under-graduates taught.
- Recruitment and retention of teaching staff is severely undermined by salaries that compare very unfavourably to those in the private dental sector, and dental schools frequently receive no suitable applicants for key academic posts.
Without a new approach, it may be difficult to retain current capability let alone cope with increased demand.

It is acknowledged that the Higher Education Reform Package has the potential to contribute to an increase in the output of oral health graduates.

In addition to providing sufficient numbers of oral health practitioners, the dental education sector needs to ensure that these graduates are able to meet the challenges facing oral health in Australia. All training and retraining programs for oral health practitioners should address cultural competency, as it is often new graduates who work in rural and remote localities where there are higher populations of Aboriginal and Torres Strait Islander peoples.

The distribution of any additional undergraduate places should take into account the need to improve distribution of the Australian oral health workforce; in particular:
- evidence that students from rural and remote areas are more likely to return to those areas to work after graduation;
- the potential for jurisdictions or universities to explore establishment of oral health programs under the rural clinical school model;
- evidence that rural rotations during undergraduate study have a positive influence on attracting people to work in rural and remote locations;
- the need for dedicated undergraduate places for those jurisdictions without a dental school.

Options to encourage Australian graduates to take up positions in rural and remote areas for a specified period include reimbursement of HECS; more dedicated university places and scholarships for students from rural and remote backgrounds, and for Aboriginal and Torres Strait Islander students; and graduate incentive programs that offer a supported employment pathway into rural and remote areas.

It is expected that the Commonwealth Learning Scholarships Programme introduced under the higher education reform package will provide an incentive for rural and regional, low socio-economic and indigenous students to enter oral health professions.

The same principles need to be applied to recruitment of oral health practitioners into the public dental sector.

**Recruitment of overseas-trained dentists – a short-term approach**

Currently overseas-trained dentists enter the Australian workforce via two paths:
- UK, Irish and New Zealand trained dentists are automatically entitled to Australian registration. It is likely that numbers entering Australia will decline with the increasing global shortage of dentists.
- Dentists from other countries must pass an Occupational English test and the ADC’s preliminary and final exams to gain Australian registration. Numbers taking these examinations have increased recently.

Dentists from countries previously accredited by the GDC (Hong Kong, South Africa, Singapore and Malaysia) could be exempted from the ADC preliminary examination and given an automatic right to practise in the public sector under specified supervision arrangements in a particular location for a fixed period (eg 3 years), possibly in combination with educational support through a part or full time Graduate Diploma (the Public Sector Dental Workforce Scheme).

Dentists exempted from the ADC preliminary examination could be subject to conditional registration by Dental Registration Boards. This would enable public sector employers to specify their practice location, similarly to the Area of Need scheme for medical practitioners. This would assist in addressing public sector shortages and could be targeted to rural and remote locations. This strategy would require the Dental Registration legislation in some jurisdictions to be amended, to enable the conditional registration of overseas-trained dentists.

Expanded educational pathways to registration for overseas-trained dentists (including distance education) would assist those exempt from the preliminary examination to pass the final ADC examination and achieve full registration; and provide an alternative pathway to registration for those who do not qualify for exemption from the ADC preliminary examination.
Changes to the education/information to applicants, employers and State Health Departments regarding the appropriate visa to apply for, and facilitating the application process for immigration arrangements could facilitate increased temporary and permanent recruitment of overseas-trained dentists and other oral health practitioners.

**Public sector recruitment and retention**

Improving recruitment and retention of public sector dentists is essential to dealing with dental workforce shortages. Barriers to recruitment and retention include: low remuneration, together with salary differences between jurisdictions, and between the public and private sector; job satisfaction; career structure; lack of recognition of excellence; lack of incentives for post-graduate study; lack of continuing professional education opportunities; stresses associated with workload pressures; the high proportion of emergencies and limited range of treatments offered; the nature of the patient base, and long waiting lists.

One barrier to attracting and retaining oral health providers in the public sector is the limited range of dental services funded by public dental programs. If public dental services were authorised to provide some dental care to the wider community on a full cost recovery basis, dental providers in the public sector could have the opportunity to provide a more professionally satisfying mix of treatment options without disadvantaged concession card holders. This approach may also provide the “working poor” with an affordable alternative source of dental services.

**Increasing numbers of graduates in dental therapy and dental hygiene**

Education of dental therapists and dental hygienists is two to three years shorter than that of dentists and these practitioners have the capacity to extend the services that can be provided by dentists, as both complementary and substitute providers. Team models of care offer greater cost-effectiveness, together with an increased capacity to provide preventive care and oral health promotion, and to deliver services outside dental clinical settings. Graduates from these programs are running at numbers below current demand for employment and are constrained by regulatory models that differ across jurisdictions and restrict their utilisation.

---

**Who will be involved?**

- Post-secondary and tertiary education (DEST, TAFE)
- Tertiary education sector (Australian universities)
- Immigration authorities (DIMIA)
- Commonwealth / State health authorities (AHMC, AHMAC, AHWOC)
- The Australian Dental Council and State/Territory dental boards
- Oral health practitioner professional associations
- State/Territory Health Departments and public dental services
- Agencies that provide Aboriginal and Torres Strait Islander scholarships

**Where will it happen?**

- State and Territory dental boards
- Universities and TAFE colleges
- Australian embassies and consulates
- State and Territory public dental services

**Linked initiatives**

- Population oral health strategies
- Public Health Education and Research Program (PHERP)
- Dental education
- Higher education reform package
- AHWOC
- Rural and remote dental care
- The Aboriginal and Torres Strait Islander Health Workforce National Strategic Framework
### Evaluation

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<th>Process indicators</th>
<th>Outcome indicators</th>
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<td>□ Net migration gain in dentists                                                   □ Reduced shortfall aggregate capacity to supply dental services against demand</td>
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</tr>
<tr>
<td>□ Employment nominations for overseas dental graduates                              □ Capacity to supply dental visits across all dental professionals</td>
<td></td>
</tr>
<tr>
<td>□ Successful completion rates for the ADC examination process                      □ Private / public</td>
<td></td>
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<td>□ Numbers of oral health practitioners trained for re-entry to the active labour force □ Major urban, urban, rural / remote</td>
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<tr>
<td>□ Intake and graduation rates for all oral health professionals in Australian universities and TAFE  □ Increased capacity of Australian oral health labour force undergraduate, postgraduate and continuing education programs</td>
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<td>□ Scholarship for students from rural/remote areas</td>
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<td>□ Conduct of rural placement programs for undergraduate students and graduates</td>
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RESEARCH IN ORAL HEALTH

Throughout the National Oral Health Plan reference is made to the need to foster research relevant to
the seven identified priority areas. The need to place a high priority on oral health research was also
reinforced by the NH&MRC Oral Health Workshop held in 2001 which identified four themes for
research in oral health:
- basic biological
- clinical
- population health, and
- health services research.

During the last 30 years there have been impressive scientific achievement in understanding and
controlling or preventing diseases and disorders affecting oral tissues. The significant progress made in
the control of dental caries with the appropriate use of fluorides is an example of a combination of basic
biological, clinical, and population health research. However, many important areas require further
investigation using new technologies to generate potential new interventions to control or treat oral
diseases and disorders.

Basic and clinical research provides the understanding of oral diseases and the benefits of their clinical
diagnosis, control or treatment. Each of these areas is capable of revealing new and profoundly different
ways of intervening to improve oral health and represent an essential investment in oral health.
Population oral health and dental health services research are more directly related to building an
evidence base on the oral health status of the population and risk groups and their access to and benefit
from dental services.

Research activity needed to inform and evaluate this Plan ranges from regional and national population
surveys of oral health and surveillance activities, to investigator-driven research targeting infants
through to older adults. Topics identified for research attention include:
- distribution of oral disease/disorder
- determinants of oral disease (particularly social inequalities)
- impact and consequences of disease (including economic impacts and relation to systemic health)
- effectiveness of interventions
- potential benefits of technological innovations in dentistry
- efficient and effective delivery of oral health services
- workforce information and models.

Research in oral health interacts with this Plan in two fundamental ways. First, strengthening the
evidence base for monitoring of process and outcome indicators is essential to support the National
Actions put forward in the seven Action Areas. Several levels of research would be involved:
- surveillance activity associated with State/Territory dental health authorities that generate
  information out of routine provision of dental services and management information or the
  regulation of the practice of dentistry;
- surveys and research studies at a community, regional or national level that extend surveillance
  activities into population samples and additional data.
- research that aims to identify risk and protective factors for oral health or designs and evaluates best
  practice approaches to better oral health.

While surveillance activity has become an integral part of oral health in Australia (Child Dental Health
Survey, Adult Dental Programs Survey, National Dental Labour Force Data Collection) there is a need to
strengthen existing activities and extend into new areas. Surveillance activities should provide timely, useful information down to a regional level. Periodic surveys of populations are required to fill the gaps and document broad population trends.

Second, investigator-driven research is required to address priority research areas identified in this Plan. Such research should be included in the research agenda of State/Territory health authorities.

State/Territory in-house research capacity needs to be built and focused around such areas, supported by recognised centres of academic strength in population health and oral health services research. Competitive grant supported research and higher degree research projects are essential to the creation or maintenance of centres of expertise and training for researchers in oral health.

Priority research areas
The following research areas have been identified under each of the Action Areas of the plan.

Promoting oral health across the population
- Information on oral health and disease across the community, at national, state and regional level, and in specific groups, over time; and a better understanding of the determinants of oral health and disease.
- Better understanding of the factors that make for effective population health interventions (eg the influence of context) through qualitative process evaluation and assessment of the effectiveness of intervention, especially where effectiveness was expected but not achieved, or vice versa.
- Better understanding of illness behaviour and utilisation of services across the population and among specific groups.

Children and adolescents
- Approaches to support oral health effectively in adolescents and young people, particularly those who are outside the school system (eg harm minimisation approaches that respect adolescent and youth cultures).
- Interventions that improve the risk status, and address the underlying socio-behavioural and cultural factors that determine this risk status, for:
  - children aged 0-5 at risk of oral health and other problems; and
  - adolescents at risk of oral health and other problems.

Older people
- Identification of the risk factors that contribute to the deterioration of oral health among many older Australians in the community.
- Assessment of the impact of support in the maintenance of oral hygiene and access to timely and regular preventive oral health care on the level functional independence of older adults with levels of cognitive impairment.
- Clinical trials of effective and affordable preventive products for older people with levels of cognitive impairment.
Low income and social disadvantage
- Effective and efficient ways to engage people on low incomes and at social disadvantage in oral health promotion and preventive activities, to reduce risk factors, build protective factors, and enable healthy choices.
- Effective and efficient service models to deliver care through the public health system, including
  - the roles of the different oral health practitioners
  - economic analysis of what constitutes “low income and social disadvantage”, to inform access and eligibility criteria.
  - cost-benefit and incentive processes that influence the mix of care that is provided to individuals.
- A better understanding of the views, behaviours and values of the disadvantaged in relation to oral and general health.

People with special needs
(i.e. people who are adversely affected by intellectual or physical disability, or medical or psychiatric conditions)
- The oral health status of special needs groups, compared to the overall Australian population, both in children and adults, including trends over time in response to public health and other interventions.
- Specific risk factors for oral disease in people with special needs.
- Effective and efficient service delivery models, settings and team composition to provide preventive and early intervention oral health services for groups with special needs.
- The role and effectiveness of carers and other health and welfare staff in oral health promotion and prevention of oral disease among special needs groups, and how best to support this role.
- Cost-effective resourcing model/s to support the delivery of an appropriate level and quality of oral health care to special needs groups.

Aboriginal and Torres Strait Islander peoples
- The prevalence, incidence and health and social effects of oral diseases among Aboriginal and Torres Strait Islander peoples, and the risk and protective factors for oral health in these communities.
- Oral health promotion activities and programs that are effective in Aboriginal and Torres Strait Islander communities in bringing about changes in attitudes, beliefs and behaviours in relation to oral health.
- Best practice protocols for treating oral diseases in Aboriginal and Torres Strait Islander peoples, including the management of periodontal disease in diabetic people.
- The impact of access to timely and regular dental care in allowing older Indigenous Australians to maintain functional independence for longer.
- The mix of dental workforce that is best able to meet the needs of Indigenous Australians across the lifespan in a sustainable way.
Workforce

- The factors that underpin and motivate the current practice and service delivery models of the oral health workforce, and how best to extend the capacity of the existing workforce without compromising quality and job satisfaction.
- How best to engage health professionals outside the dental field in the promotion of oral health.
- Identifying/developing funding and service delivery (including recall) models that can best manage and contain the growth in demand for oral health care, while promoting equity and maintaining quality, and effectiveness of care.
- The most appropriate oral health workforce mix for delivery of oral health care across different age groups, geographical locations, and settings.
- The future need for dentures (full and partial) and the role of dental prosthetists in their supply, given the current trend for people to retain their natural teeth for longer.
- Ways to continue to engage private providers in sustained commitment to public health, without an unacceptable impact on their private practice viability.

The National Advisory Committee on Oral Health strongly recommends that oral health research be promoted as a priority area for national research funding agencies.
APPENDIX ONE:
NATIONAL ADVISORY COMMITTEE ON ORAL HEALTH

Chair
Dr Arthur van Deth
AVD Consulting, South Australia

Jurisdictional representatives
Dr Peter Hill
Department of Health, New South Wales
Dr Alan Patterson (July 2002 – April 2003)
Department of Health, New South Wales
Dr John Rogers
Department of Human Services, Victoria
Mr Errol Evans
Queensland Health
Dr Martin Dooland
South Australian Dental Service
Ms Elizabeth Rohwedder
Department of Health, Western Australia
Dr David Butler
Oral Health Services, Tasmania
Ms Noni Bickerstaff
Territory Health Services, Northern Territory
Ms Jenelle Reading
ACT Health
Ms Laurann Yen (July 2002 – Nov 2003)
ACT Health

Commonwealth
Ms Susan Rogers
Department of Health & Ageing
Mr Terry Barnes (July 2002 – Nov 2003)
Department of Health & Ageing

Australian Dental Council
Dr Peter Noblet
Australian Dental Council, South Australia
Dr Ross King
Australian Dental Council, Victoria (observer)

Technical representative
Associate Professor Marc Tennant
University of Western Australia

Australian Institute of Health & Welfare
Professor John Spencer
Dental School, South Australia

Indigenous Interests representatives
Ms Catherine Morgan
Department of Human Services, South Australia

Consumer representative
Ms Kay Robinson
New South Wales

National Public Health Partnership
Dr Paul Wood
Queensland Health

Australian Dental Association
Dr John Matthews
Australian Dental Association
Dr Robert Butler (July 2002 – May 2003)
Australian Dental Association

Australian Dental Prosthetists Association
Mr Graham Key
New South Wales

Australian Dental Therapists Association
Dr Julie Satur
Victoria

Dental Hygienists Association of Australia
Ms Mary Beare
Australian Capital Territory

Dental Deans
Associate Professor Viv Burgess
University of Adelaide, South Australia

Secretariat
Ms Sarah Venner
Department of Human Services, SA
### APPENDIX TWO:
INVENTORY OF PUBLIC DENTAL SERVICES 2001/2002

**Expenditure and activity**

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* Included in Emergency & General Adults

**Table 3: Expenditure ($million) by jurisdiction and program**

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<th>Emergency &amp; General Children</th>
<th>Emergency &amp; General Adults</th>
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<th>Special Need</th>
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* Not recorded  ** Included in Emergency & General Adults  *** In NSW telephone triaging of patients is included in Visits

**Table 4: Activity (visits) by jurisdiction and program**

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### Staffing

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**Table 5: Dentist staffing by jurisdiction and program (full time equivalent)**

* Included in Emergency & General Adults

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<tr>
<td>S&amp;T Total</td>
<td>766.2</td>
<td>169.2</td>
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<td>935.8</td>
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<td>0.0</td>
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</tr>
<tr>
<td>Aus Total</td>
<td>766.2</td>
<td>169.2</td>
<td>0.0</td>
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<td>935.8</td>
</tr>
</tbody>
</table>

**Table 6: Dental therapist staffing by jurisdiction and program (full time equivalent)**

* Included in Emergency & General Adults
### Appendix Two: Inventory of Public Dental Services 2001/2002

#### Table 7: Dental hygienist staffing by jurisdiction and program (full time equivalent)

<table>
<thead>
<tr>
<th></th>
<th>NSW</th>
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<th>Qld</th>
<th>WA</th>
<th>SA</th>
<th>Tas</th>
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<th>ACT</th>
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#### Table 8: Dental assistant staffing by jurisdiction and program (full time equivalent)

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<th>Specialist</th>
<th>Special Need</th>
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<td>51.2</td>
<td>9.7</td>
<td>2,006.2</td>
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* Included in Emergency & General Adults
** Included in Emergency & General Children
### Staffing

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<td>59.2</td>
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</tr>
<tr>
<td><strong>Aus Total</strong></td>
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Table 9: Dental prosthetists staffing by jurisdiction and program (full time equivalent)
Waiting Lists

(Note: Jurisdictions have different systems for recording waiting lists and comparisons between State/Territories should be made with caution)

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<td>*</td>
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Table 10: Number of people on waiting lists at 30 June 2002

* Not recorded centrally
** Included in Restorative

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<td>*</td>
</tr>
<tr>
<td><strong>Vic</strong></td>
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<td>10.7</td>
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<tr>
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<td>12</td>
</tr>
<tr>
<td><strong>ACT</strong></td>
<td>25</td>
<td>7</td>
<td>*</td>
</tr>
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</table>

Table 11: Length of waiting lists (months’ wait)

* Not recorded centrally
APPENDIX THREE:
PROPOSED MINIMUM STANDARDS

The following, adapted from AHMAC (2001), is suggested by NACOH as a starting point for further debate and development of minimum standards. These standards relate to both the private and public dental sectors and would be a basis for planning as well as for monitoring service delivery.

Minimum standard benchmarks can be set in a number of areas, including oral health status, oral health promotion and disease prevention, access to services, and clinical practice for disease prevention and restorative care.

Some minimum standards for access to dental services have been described at National Forums or in State and Territory reviews. These include the following standards for children:

- All children should receive at least one course of general oral health care including appropriate oral health promotion every two years. Children with greater dental needs should be recalled more frequently.
- All children should receive emergency dental care as needed, with priority based on specific clinical need.

Standards for adults are the following:

- All adults should receive at least one course of general dental care every three years on average.
- All adults who require denture services should have access to a set of dentures once every eight years on average, with dentures being approved more frequently only where indicated by clinical parameters.
- All adults should receive emergency oral health care as needed, with priority based on specific clinical need.

These standards for children and adults were taken from the SA Ministerial Review where they applied to eligible children and adults in public dental services.

Additional standards that have been proposed by Dental Health Services Victoria (1998) include the following:

- Decayed teeth and other oral disease should be treated in time to prevent expensive, complicated oral health care and tooth loss.
- Australians receiving oral health care should be provided with the information to enable them to prevent further oral disease.
- Oral health care should be provided within the local community in a socially and culturally acceptable manner.

There is an urgent need to extend such minimum standards. A wider set for consideration might include population coverage standards for oral health promotion approaches, outreach and recall, risk assessment, specific prevention, and balance between restorations and tooth extractions.

Any attempt to set benchmarks will need to be underpinned by a commitment to strengthening monitoring and surveillance activities in oral health.
GLOSSARY AND ABBREVIATIONS

Aboriginal concepts:

Community control: ‘A process which allows the local Aboriginal community to be involved in its affairs in accordance with whatever protocols or procedures are determined by the Community’ (NACCHO 1997).

Health: ‘Not just the physical well being of an individual, but . . . the social, emotional and cultural well being of the whole community in which each individual is able to achieve their full potential as a human being thereby bringing about the total well being of their community. It is a whole of life view and includes the cyclical concept of life-death-life’ (NACCHO 1997).

ABS: Australian Bureau of Statistics
ADA: Australian Dental Association
AHMAC: Australian Health Ministers Advisory Council
AHMC: Australian Health Ministers Council
AIHW: Australian Institute of Health and Welfare

Aspiration pneumonia: Inflammation of the lungs caused by inhaling foreign material (usually food, drink, vomit or secretions from the mouth) into the lungs.

Bachelor of Oral Health: A qualification for oral health providers trained as both a dental therapist and a dental hygienist. The provider registers to practice in one or both areas.

Community education: An organised campaign designed to increase awareness of an issue.

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

Dental caries: Tooth decay.

Dental hygienist: An appropriately qualified oral health provider registered to provide a range of primary dental health services on both children and adults with a focus on the prevention of oral disease. Services are provided by the dental hygienist in a varying professional relationship with the dentist and include scaling, polishing, applying preventive materials (such as fluoride solutions and pit and fissure sealants) and health promotion and education.

Dental plaque: A film of mucous and bacteria deposited on the teeth that encourages the development of dental caries.

Dental prosthetics: The branch of dentistry that is concerned with the provision of dentures (full and partial) implant-retained removable prostheses and mouthguards.

Dental prosthetist: An appropriately qualified oral health provider registered to provide a range of dental services including full and partial dentures, implant retained removable prostheses and mouthguards.

Dental technician: An appropriately qualified person to manufacture all fixed and removable dental appliances under prescription from a dentist or dental prosthodontist.

Dental therapist: An appropriately qualified oral health provider registered to provide a range of primary dental health services for children and adolescents. Services are provided by the dental therapist in a varying professional relationship with the dentist and include examination, applying preventive materials (such as fluoride solutions and pit and fissure sealants), fillings, extraction of primary teeth and health promotion and education.

Dentate: Having some or all of one’s own natural teeth.

Dentist: An appropriately qualified oral health care provider registered to practise all areas of dentistry.

Dentistry: The science and art of preventing, diagnosing and treating diseases, injuries, developmental and acquired defects of the teeth, joints, oral cavity and associated structures.
Early intervention: Interventions targeting people displaying the prodromal signs and symptoms of an illness. Early intervention also encompasses the early identification of people suffering from a disorder.

Edentulous: Having all natural teeth missing.

Gingivitis: Inflammation of gingivae (gums).

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

Health inequities: Differences in the distribution of resources and services across populations, that do not reflect health needs; differences that are not only unnecessary and avoidable, but are also considered unfair and unjust. Inequities may relate to opportunity to access, utilization and quality of health services, as well as avoidable unjust and unnecessary factors that impair health. Addressing health inequities involves improving the distribution of resources according to health needs.

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 (WHO 1986).

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

Infective endocarditis: Inflammation of the innermost lining of the heart (endocardium) especially the valves.

NACCHO: The National Aboriginal Community Controlled Health Organisation, the national peak Aboriginal health body.

NACOH: National Advisory Committee on Oral Health

NHMRC: National Health and Medical Research Council

OECD: Organization for Economic Cooperation and Development

Optimum oral health: that state where the cost of any improvement outweighs the value attached to the improvement, where cost may be understood as economic, quality of life, and/or any other major parameter by which health is assessed (Steele 1996)

Oral health therapist: An appropriately qualified oral health provider trained as both a dental therapist and a dental hygienist. The provider registers to practice in one or both areas.

Oral health: “…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.” (U.S. Department of Health and Human Services 2000, page 17.)

Otitis media: Middle ear infection

Oral mucosa: The lining of the mouth.

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 (2nd National Mental Health Plan 1998, p27).

Partnership: An association intended to achieve a common aim.

Periodontics: The branch of dentistry that is concerned with the tissues that support and attach the teeth and the treatment and prevention of diseases affecting these tissues.

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.

Periodontium: The tissues that connect the tooth by its root to the supporting bone.

PHERP: Public Health Education and Research Program

PHIIS: Private Health Insurance Incentives Scheme.
**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 (Last 2001).

**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:** ‘Interventions that occur before the initial onset of a disorder’ (Mrazek & Haggerty 1994, p23).

**Primary teeth:** The first set of teeth that develops in mammals; also known as the deciduous or milk teeth.

**Protective factors:** Those factors that ‘produce a resilience to the development of psychological difficulties in the face of adverse risk factors’ (Spence 1996a, p5).

**Public health:** The practices, procedures, institutions and disciplines required to achieve the desired state of population health (Last 2001).

**Risk factor:** ‘Those characteristics, variables, or hazards that, if present for a given individual, make it more likely that this individual, rather than someone selected at random from the general population, will develop a disorder’ (Mrazek & Haggerty 1994, p127).

**Sealant:** Sealing of pits, fissures or cracks in a tooth with bonded resin or adhesive cement to prevent development or progression of dental caries at the site.

**Secondary teeth:** The permanent set of teeth that replace the primary teeth.

**SNAP:** The Smoking, Nutrition, Alcohol and Physical Activity Risk Factor Framework for General Practice

**WHO:** World Health Organization
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ARCPOH (forthcoming-b) The dental labour force in Australia: the position and policy directions.


Department of Human Services (DHS) (2002b) Victorian ambulatory care sensitive conditions study: opportunities for targeting public health and health services interventions. Melbourne: Rural and Regional Health and Aged Care Services Division, Victorian DHS.


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