Oral Health 2020:

A Strategic Framework for Dental Health in NSW

NSW GOVERNMENT | Health

NSW MINISTRY OF HEALTH
73 Miller Street
NORTH SYDNEY NSW 2060
Tel. (02) 9391 9000
Fax. (02) 9391 9101
TTY. (02) 9391 9900
www.health.nsw.gov.au

Produced by:
Centre for Oral Health Strategy NSW

SHPN (CEE) 120487
ISBN 978 1 74187 883 7

Further copies of this document can be downloaded from the NSW Health website www.health.nsw.gov.au

February 2013

Contents

Introduction

Oral Health 2020: A Strategic Framework for Dental Health in NSW (the Framework) sets the platform for oral health action in NSW into the next decade. It provides an overview of the oral health status of the population, outlines the goals for oral health services, describes target groups that require focussed efforts, and outlines the high level actions that will be pursued to improve the oral health of the population.

The Framework will support the NSW Ministry of Health and Local Health Districts (LHDs) to plan and deliver priority programs tailored to the health needs of the population at both a state and local level. It also acknowledges the significant role the Agency for Clinical Innovation (ACI), the Clinical Excellence Commission (CEC), the Health Education and Training Institute (HETI), and NSW Kids and Families will have in contributing to improved oral health in NSW.

Delivery of Oral Health Services in NSW

Dental services, unlike other health services, are not covered by the principle of universal access. In the Australian health care system, Medicare and the entitlement that all Australians have to the medical and pharmaceutical benefits it provides are a well recognised strength. Public dental services, however, are largely only provided to the young and the disadvantaged, with no Commonwealth scheme similar to Medicare that provides access to all.

In NSW, public dental services are provided to children* and eligible adults, with the majority of dental services being funded on a private basis. For adults, this eligibility means they have one or more of the following cards: Commonwealth Seniors Health Card, Health Card, or Pensioner Concession Card. NSW Health does not charge a co-payment for oral health services. The Commonwealth Government plays a role in the funding of dental services, however, the NSW Government is responsible for delivering the major public program for children and eligible adults.

The range of oral health services provided through the NSW public health system broadly includes dental services to children and eligible adults according to criteria that prioritise emergency situations: those in most need and at highest risk of disease; dental education and oral health promotion services. Operationally in NSW these services are delivered by each of the Local Health Districts (LHDs). The services are delivered in dental clinics based in community health centres, hospitals and schools and include general dentistry such as examinations, fillings, and dentures. Contracted services are also provided via the Oral Health Fee for Service Scheme (OHFFSS), which enables public oral health services to provide care through a private practitioner using a voucher system.

In rural LHDs, clinics may be located in hospitals, schools, community health facilities, or mobile dental clinics. In some communities a private surgery may be rented to provide public sector oral health services. In metropolitan areas, clinics are mainly located in community health centres, or on school or hospital grounds. Eighteen Aboriginal Medical Services also provide dental services funded by NSW Health.

The Westmead Centre for Oral Health, the Children's Hospital at Westmead and the Sydney Dental Hospital provide general and specialist oral health services in their clinics and through outreach programs in rural public dental clinics. The specialist services include paediatric dentistry, oral surgery, endodontics, prosthodontics, special needs dentistry, oral medicine and oral pathology, orthodontics, and periodontics.

* This excludes access to general anaesthetics, for which there is eligibility criteria for children.

Planning Context

There are a range of state and national oral health programs, funding initiatives, reviews, and reports that have influenced this Framework. This includes input from the NSW Ministerial Taskforce on Dental Health, the report of the National Advisory Council on Dental Health established by the Commonwealth Government in 2011, and recently announced Commonwealth oral health initiatives[1] (including the Child Dental Benefits Schedule, National Partnership Agreements, and a Flexible Grants Program). Working with both the Commonwealth Government and private sector to provide enhanced oral health services will be a key requirement into the future.

There have also been significant reforms across the NSW Health system that have influenced this Framework: in particular, implementation of the National Health Reform Agreement. Under the new governance arrangements, LHDs have clear responsibility and accountability for governing health service delivery for their local district. These responsibilities and the funding required to deliver services to address local need are being articulated in a Service Agreement negotiated between the Ministry of Health, as purchaser and system manager/regulator, and the LHDs as providers of health services.

The Agency for Clinical Innovation (ACI) and the Health Education and Training Institute (HETI) will have an enhanced range of responsibilities and accountabilities. The Clinical Excellence Commission (CEC) and the Bureau of Health Information (BHI) are also taking on an expanded portfolio of responsibilities but largely within their current roles. Further, the statutory health corporation, NSW Kids and Families has been established to champion the health interests of children and young people whether they are at home, in the community or in or out of hospital. This includes health services for babies, children, adolescents, mothers, parents and families. These agencies are known as the "pillars".

The Centre for Oral Health Strategy (COHS) NSW, which is part of the Population and Public Health Division within the Ministry, will need to ensure that there are strong linkages and partnerships with the Commonwealth, the private sector, the pillars (especially the ACI, HETI and NSW Kids and Families) as well as LHDs, and the Aboriginal Health and Medical Research Council (AH&MRC).

The Challenges Ahead

Some of the challenges facing oral health services over the next 10 years include:

- **Population growth:** In 2026, the NSW population is projected to reach eight million; with Sydney remaining the dominant population centre in NSW. Most growth in Sydney will occur to the west and south west of the city. The population of most local government areas along the NSW coast is expected to increase, while the population of most inland areas of NSW is expected to decline.[2] These changing demographic patterns will influence the demand for services and will need to be considered in planning the location and type of services provided.
- **Workforce:** The majority of oral health services are provided by the private sector, with a relatively small proportion of the oral health workforce within the public sector. Attracting and retaining a skilled workforce, particularly in rural and remote areas and in specialist disciplines, is an ongoing and significant challenge.
- **Ageing of the population:** In 2026, 20% of the population will be people aged 65 years and older, compared to 13.1% in 2001.[2] The prevalence of edentulism has decreased in older Australians, and accordingly, a range of chronic degenerative dental disorders is now emerging (such as tooth wear, erosion, cuspal fractures, pulp infection, and root fracture). The consequences of increased tooth retention in older adults, combined with an increased proportion of clients in this age group with complex medical needs, means new skills will be required by dentists to manage these age-related disorders as well as an increased demand for more general, periodontic, and prosthodontic dental care.

- **Increasing demand for oral health services:** This is partly due to the ageing population, but also to changing public expectations, increasing services per visit required, and a greater dependence on the public sector as the number of private sector dentists in rural communities declines.
- **The impact of technology on access:** New information and communication technologies offer the potential to improve consumer access to health information and services, as well as boosting operating efficiency — this will require timely investment.
- **Unequal gains in oral health status:** There is a persistent gap between the most and least disadvantaged: for example healthcare cardholders, Aboriginal and Torres Strait Islanders, and people living in rural and remote communities. Focussed efforts will be required to ensure targeted service provision to those who are most in need.
- **Balance between population prevention and individual treatment services:** The cost of providing treatment continues to grow as does the demand for public dental services. This demand for individual treatment will need to be balanced with the need to fund health promotion and disease prevention initiatives. Opportunities to integrate oral health within existing health promotion programs in early childhood and chronic disease management need further exploration.
- **Funding of oral health services:** Services are funded by individuals, the Commonwealth Government, private health insurance, and by State and Territory Governments in their provision of services to the eligible population. The dental initiatives of the Commonwealth, and changes to Private Health Insurance rebates will alter the nature of funding and affect the use of public and private dental services.

The Oral Health of the NSW Population

Oral health is considered integral to general health, with poor oral health likely to exist when general health is poor and vice versa.[3] Oral health refers to the standard of health of the oral and related tissues that enable an individual to eat, speak and socialise without active disease, discomfort or embarrassment. While oral diseases are common, they are largely preventable through population-level interventions (including water fluoridation), and individual practices such as personal oral hygiene and regular preventive dental care.

A key indicator of the oral health status of a population is the dental caries experience. In the primary dentition, this is recorded as the number of primary teeth that are decayed (d), missing (m) due to dental caries, or filled (f) because of dental caries. Permanent caries experience (DMFT) is recorded as the number of permanent teeth that are either decayed (D), missing (M) because of dental caries, or filled (F) because of dental caries.

Collecting robust data on the oral health of a population requires a survey methodology that includes dental examinations, and it is this complexity that limits the frequency of data collections. The most recent survey of child dental health in NSW was conducted in 2007. It utilised robust sampling methodology and standardised dental examinations and data collection to estimate the oral health status of children. The next Child Oral Health Survey is being conducted in 2012–13.

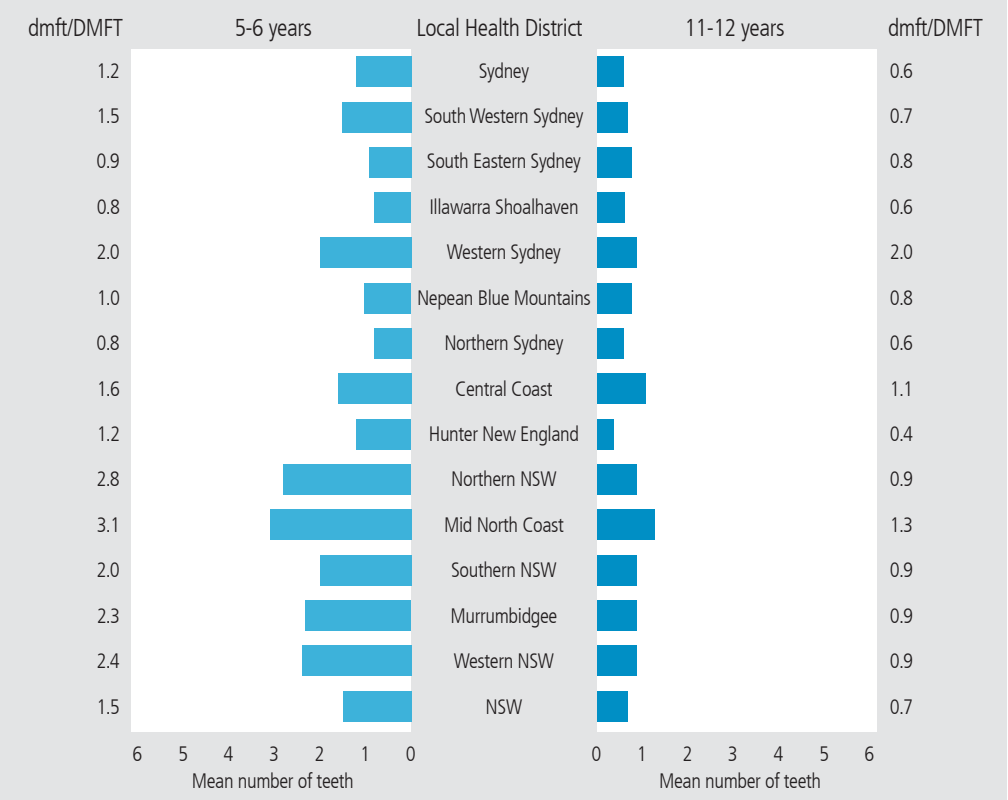
For adults, the most recent data is provided by *The National Survey of Adult Oral Health 2004–06*. Key results from both surveys are provided below.

Table 1: Oral Health Problems in NSW Children (2007)

Indicator of oral health	
Mean dmft for 5–6 year olds	1.53
Mean DMFT for 11–12 year olds	0.74
Percentage of 5–6 year olds with active or treated decay in their primary teeth.	38.8
Percentage of 11–12 year olds with active or treated decay in their permanent teeth.	35.6

Source: NSW Health Child Dental Health Survey 2007[4]

Figure 1: dmft/DMFT in children by Local Health District (2007)



Source: NSW Child Dental Health Survey 2007[4]

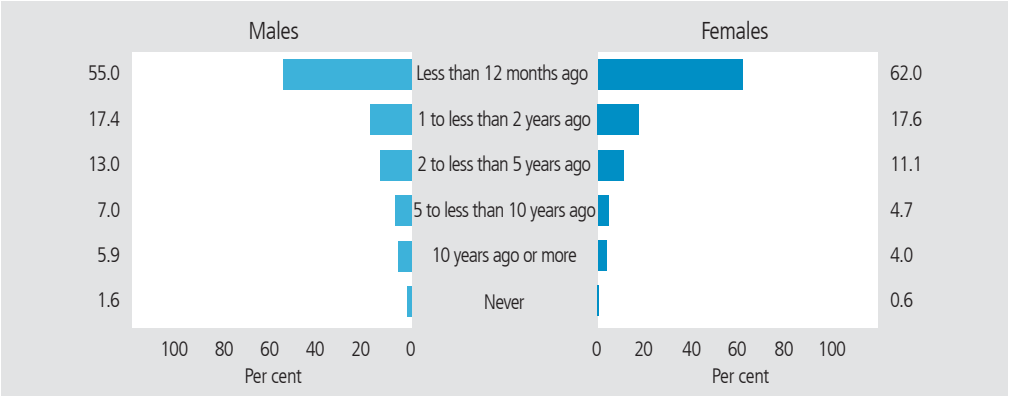
Table 2: Oral health problems in NSW and Australian Adults (2004–06)

Indicator of oral health	NSW	Australia
Percentage of adults with complete tooth loss	5.5	6.4
Percentage of adults with fewer than 21 natural teeth	11.7	11.4
Percentage of dentate adults who wear dentures	15.9	14.9
Percentage of adults with untreated coronal decay	27.1	25.5
Average number of teeth per person missing due to pathology	4.9	4.5
Average number of decayed, missing or filled teeth per person	12.8	12.8
Percentage of adults with more than 4 mm periodontal pocket depth	21.4	19.8

Source: Sivaneswaran S. The oral health of adults in NSW, 2004–06[5]

In addition to these surveys, the NSW Health Survey Program captures self-reported information from adults aged 16 years and above. The following figure indicates that less than 60% of adults visit a dentist regularly. Data from the survey also indicates that most visited private dental practitioners (86.8%), however, just over half of the population has private health insurance for dental expenses (51.2%).[6]

Figure 2: Time since last dental visit, adults aged 16 years and over, NSW, 2010



Source: Centre for Epidemiology and Research. 2010 Report on Adult Health from the New South Wales Population Health Survey. Sydney: NSW Department of Health, 2011.[6]

Goals

The goals of *Oral Health 2020: A Strategic Framework for Dental Health in NSW* are to:

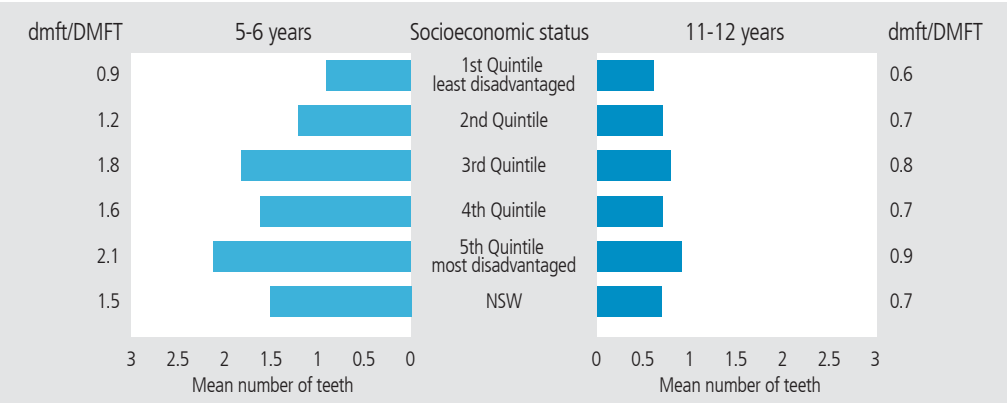
1. Improve access to oral health services in NSW.
2. Reduce disparities in the oral health status of people in NSW.
3. Improve the oral health of the NSW population through primary prevention.

Goal 1: Improve Access to Oral Health Services in NSW

As described previously, a significant proportion of the NSW population does not access dental services regularly, and when they do, they generally access private services. This accords with the service provision model, in that the NSW public dental system provides services to children and eligible adults (generally the most disadvantaged members of the population) with the majority of dental services being funded on a private basis.

The rate of clients visiting dental professionals varies considerably between the most and least disadvantaged in the population. A significantly higher proportion of adults in the first or least disadvantaged quintile (68.6%), and a significantly lower proportion of adults in the fifth or most disadvantaged quintile (53.5%) visited a dental professional less than 12 months ago, compared with the overall adult population. Figure 3 illustrates the disparities in oral health in children by socioeconomic status.

Figure 3: Mean number of dmft/DMFT in children by socioeconomic status



Source: NSW Child Dental Health Survey 2007[4]

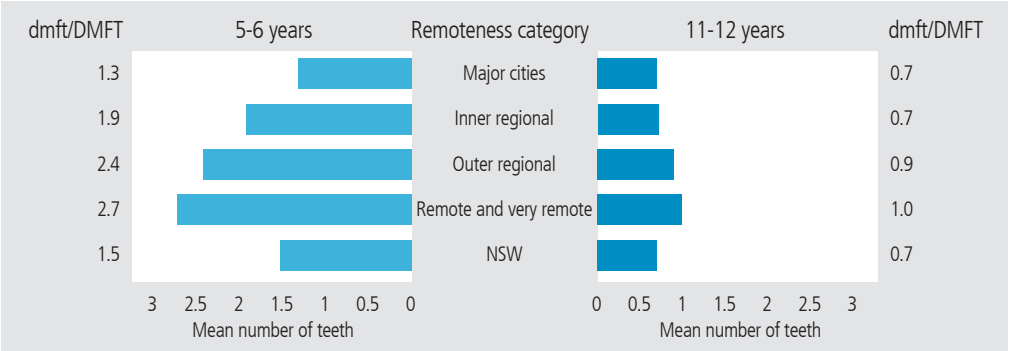
It has been recognised nationally that this disparity in access is evidence of the need to improve the way in which the dental system services the population. Nationally the system has been described as an "episodic, problem-oriented primary health approach with little comprehensive treatment and continuity of care".[7] Improving the dental visiting pattern for all of the population, particularly the most disadvantaged, remains a challenge for the dental system in NSW.

Goal 2: Reduce Disparities in the Oral Health Status of People in NSW

Implementation of activities to achieve both Goals 1 and 3, such as water fluoridation, population prevention through integrated health promotion, and improved access to dental services for the entire population, will lead to improved oral health status of the population.

However, there are subpopulations within the community that will need additional focus to ensure disparities in oral health status are reduced. Aboriginal and Torres Strait Islander people, older people, adults and children with special needs, children in out-of-home care, and those in rural/remote communities where access to services is limited, are priority groups in NSW (see Figure 4, which illustrates children's oral health status by remoteness). These subpopulations form the Priority Populations for this Framework.

Figure 4: Mean number of dmft/DMFT in children by remoteness



Source: NSW Child Dental Health Survey 2007[4]

Goal 3: Improve the Oral Health of the NSW Population through Primary Prevention

Whole of population or universal initiatives are centred on increased access to water fluoridation, health promotion, and disease prevention. These initiatives address the social determinants of oral disease and share common risk factors with other chronic diseases. An integrated risk factor approach recognises that chronic diseases and conditions such as overweight and obesity, heart disease, stroke, cancer, diabetes, and oral disease share common risk factors. Key risk factors include poor diet, smoking, and alcohol use.

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

In the coming decade, NSW Health will continue to pursue a fluoridated water supply for the population and integrate oral health promotion within other health promotion activities in areas such as healthy eating, prevention of overweight and obesity, and smoking reduction programs. NSW Health will also identify opportunities for oral health promotion to be included within other health care programs, such as chronic care initiatives for older adults, and early childhood programs (including home visiting). NSW Kids and Families will be a key partner, as will other parts of NSW Health with responsibility for health promotion.

Broad target expectations for oral health by the year 2020 have been developed:

Target 1. A **reduction** in the percentage of people across all age groups who

- are edentulous (meaning complete loss of all natural teeth)
- have any decayed teeth
- have periodontitis (a serious gum infection that damages the soft tissue and bone).

Target 2. An **increase** in the percentage of people across all age groups who

- have ten or more occluding pairs of teeth (meaning the way upper and lower teeth fit together during biting and chewing).

These broad targets have been developed because they represent key indicators of oral health in a population. Oral Health is fundamental to overall health, wellbeing and quality of life — enabling people to eat, speak, and socialise without pain, discomfort, or embarrassment.

People who have completely lost their natural teeth (that is, they are edentulous), either through injury or severe dental disease, for example, may experience a reduced quality of life or daily functioning. Hence it is important that edentulism across the population is reduced. Reducing the number of decayed teeth and the prevalence of periodontitis in people will also contribute to improved oral and general health across the population. It is important for people to maintain as many of their teeth as possible, hence the target of increasing people with ten or more occluding pairs of teeth.

Priority Populations

Early Childhood

In NSW, 40% of children aged 5–6 years have untreated — or have experienced — dental disease. This is significantly higher in certain populations, including Aboriginal children (2.5 times higher), children from a lower socioeconomic background (refer to Figure 3), children living in remote/very remote areas (up to 6 times higher), and for children of mothers born in non-English speaking countries.[4]

Early Childhood Caries (ECC) is a dental decay disease that crosses all socioeconomic boundaries with high prevalence and a significant health burden in Australia and globally, even though it is preventable. It is an infectious disease that is modified by diet. ECC has significant consequences,[8] and hence children are a key priority population for this Framework.

The Early Childhood Oral Health (ECOH) Program is a community-based, early intervention program, built on the principles of integrated service delivery. It focuses on effective partnerships between families, oral health professionals, and general child health professionals to achieve optimal oral health for infants and young children.

An example of integrating oral and general health is the NSW Personal Health Record (Blue Book) that is provided to parents and child health professionals. It includes information about prevention of dental disease and an oral health check as part of all child health checks from six months of age.

Integrated primary prevention activities that improve children's diets, and the ECOH early intervention program, are the main actions to improve the oral health of children in NSW. Ensuring good oral health for children in out-of-home care in particular will also be a focus.

Children and Adults with Special Needs

People with special needs are people with an intellectual or physical disability, or medical or psychiatric conditions, which increases their risk of oral health problems or increases the complexity of oral health care.[3] People with special needs can require a range of different levels of dental care from general dentistry through to highly trained specialist dental services.

While a significant number of people with special needs can be quite satisfactorily and safely treated within the existing mainstream public dental services, barriers to access need to be a key consideration. Such barriers may be reduced by targeted oral health promotion activities, training for oral health staff in the specific additional needs of people with special needs, and partnerships with other health and service providers.

Aboriginal and Torres Strait Islander People

Compared to the overall Australian population of similar age, Aboriginal and Torres Strait Islander people experience significantly more oral disease. 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
- children and adults have worse periodontal health, with poor periodontal health evident in younger populations.[3]

Actions within this Framework to improve the oral health of Aboriginal and Torres Strait Islander people will need to be based on the key Aboriginal health principles[9] including:

- Whole-of-life view of health
- Working in partnerships
- Cultural competency

Older People

As described earlier, the NSW population is ageing, and with the reduction in edentulism, a range of chronic dental disorders is now emerging. Even though edentulism is declining in metropolitan areas, complete and significant tooth loss remains high among both younger and older populations in rural areas, and there is still strong demand for full dentures.

Further, there are strong indicators that dental caries and periodontal diseases are more prevalent and more severe for residents in aged care facilities. The Better Oral Health in Residential Care Program in Nursing Homes was established in response to this. The Program is funded by the Australian Government Department of Health and Ageing under the program "Encouraging Best Practice in Residential Aged Care".[10]

The consequences of increased tooth retention in older adults means new skills will be required by dentists to manage these age-related disorders as well as an increased demand for more general, periodontic, and prosthodontic dental care.

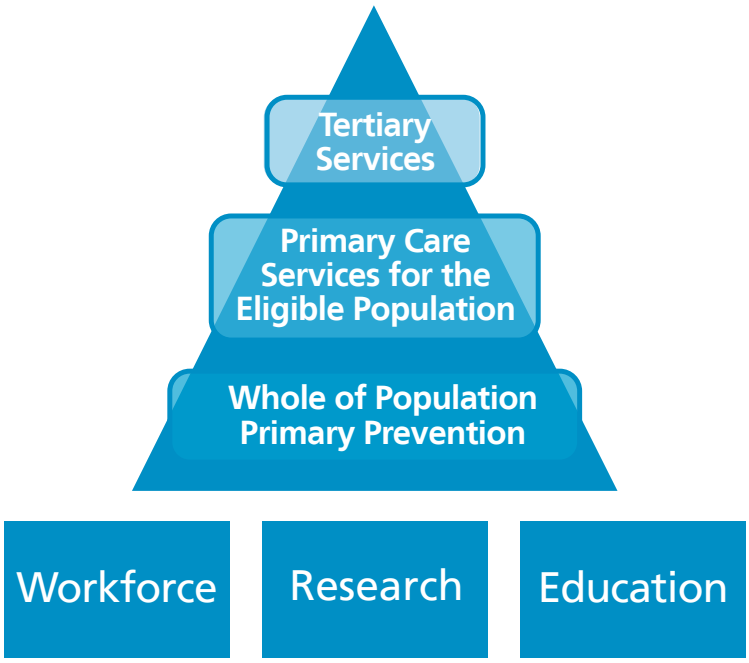
Rural and Remote Communities

Across Australia, people living in rural and remote areas generally have worse health than those living in cities.[11] People living in rural communities experience geographic isolation, problems with access to care, affordability of home health care resources (e.g. toothbrush and fluoride toothpaste), affordability and availability of fresh and healthy food, shortage of health care providers and health services, socioeconomic disparities, greater exposure to injury, lower road quality and lack of transport, small sparsely distributed populations, and higher Indigenous health need.

Delivery of quality health services depends on having adequate numbers of skilled staff working where they are needed. Addressing the current shortfall in the supply of oral health professionals must be a key priority.

Action Framework

The following diagram summarises the Action Framework required to deliver the Goals of *Oral Health 2020*. Actions will span from whole-of-population primary prevention, through to service provision for eligible adults and children in primary care settings, to the tertiary services provided in the two dental hospitals and other settings. Enabling actions will also occur in workforce, research and education.



Primary Prevention

Water Fluoridation

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.[12] Lifetime exposure to fluoridation is associated with caries experience reduction in both the primary and the permanent dentition compared with non-exposed children.[13] Since 2004 NSW Health, in conjunction with the LHDs, Local Councils, and Water Supply Authorities, has been proactive in developing strategies to promote water fluoridation to rural communities in NSW to reduce inequalities in oral health. A comprehensive and multi-disciplinary approach is taken in educating and consulting communities and stakeholders about the benefits of water fluoridation.

This proactive approach to water fluoridation has resulted in 20 Councils implementing fluoridation. Population coverage of water fluoridation has increased from approximately 90% in 2004 to approximately 96% in 2012.[14] In some small communities, however, it is not feasible to fluoridate the water supply, due to the nature of the water supply utility, hence alternative approaches are pursued.

Fluoridation Actions	Responsibility	Partners
Continue to encourage and work with Local Governments of unfluoridated communities to introduce fluoride to the local water supply.	COHS, LHDs	Local Governments
Identify and implement the most appropriate strategy to provide fluoride to communities where water fluoridation is not feasible, especially Aboriginal Communities.	COHS, LHDs	Universities
Where clinically appropriate, ensure fluoride applications for all "high risk" individuals attending public dental services.	LHDs	

Integrated Health Promotion

As described earlier, integrated approaches to health promotion recognise that chronic diseases and conditions such as overweight and obesity, heart disease, stroke, cancer, diabetes, and oral disease share common risk factors. Key risk factors include diet, smoking, and alcohol use. In the coming decade, NSW Health will continue to integrate oral health promotion within other health promotion activities.

Over the next ten years, oral health promotion will be able to capitalise on the broader health promotion agenda, particularly within existing early childhood programs and implementation of the National Partnership Agreement on Preventive Health, which includes the Healthy Children Initiative. Strategies within the Initiative will provide the platform for oral health to boost some key common messages, such as choosing water as a drink, promoting breastfeeding, and reducing consumption of sugary drinks and food.

Oral Health Promotion Actions	Responsibility	Partners
Implement an integrated risk factor approach to oral health promotion that capitalises on key initiatives such as the Healthy Children Initiative.	LHDs, Ministry, Office of Preventive Health	
Provide support to other health promotion campaigns that include common messages around alcohol, smoking, water consumption and reduction of intake of sugary drinks and food.	LHDs, Ministry, Office of Preventive Health	
Promote oral health promotion programs, resources and literature through the National Oral Health Promotion Clearing House.	LHDs, Ministry, Office of Preventive Health	Universities
Identify opportunities to support the common risk factor messages being integrated into the educational curriculum for students and relevant education/health professionals.	Ministry	Department of Education and Communities
Continue to support parents/carers to implement good oral health practices with their children through early childhood oral health programs.	COHS, LHDs	Child health professionals NSW Kids & Families
Ensure integrated oral health promotion programs are appropriately tailored to those with special needs, Aboriginal and Torres Strait Islander People, rural communities, and older people.	LHDs, Ministry, Office of Preventive Health	Peak organisations, NGOs
Integrate oral health promotion within existing early childhood and out-of-home care programs in partnership with NSW Kids and Families.	LHDs, Ministry, Office of Preventive Health, NSW Kids & Families	

Primary and Tertiary Service Delivery

In NSW, all children†, and only those adults that meet the eligibility criteria, are able to access public oral health services. For adults, this eligibility means they have one or more of the following cards: Commonwealth Seniors Health Card, Health Card or Pensioner Concession Card. NSW Health does not charge a co-payment for oral health services. Each year between 2.6 and 2.8 million 'weighted occasions of service'‡ are provided.

The services are provided via approximately 183 public sector dental clinics with a combined total of approximately 750 dental chairs (May 2012). Eighteen Aboriginal Medical Services also provide oral health services, funded by the NSW Ministry of Health.

The most efficient public sector clinics have four or more dental chairs: this level of service capacity allows for economies of scale, improves staff security, and provides student clinical placements. Into the future, while clinics with lesser capacity (e.g. two-chairs) will still be required, these will be linked to "Hub" clinics (i.e. those with four or more chairs). Single chair surgeries will also still be required in small communities where there are special needs for visiting services.

The optimum use of all dental resources in each Local Health District — and across NSW — requires collaboration between the public sector, the private sector, and Aboriginal Medical Services, with arrangements negotiated to suit local circumstances in the Local Health Districts.

"Hub and Spoke" configurations will be established to enhance local service delivery. Through this model, higher capability sites (Hubs) provide services and support to smaller sites with lower capability (Spokes). This model increases the ability of smaller services to provide improved access to a broader range of services, particularly in rural and remote areas where the efficient provision of services is challenged by workforce and physical capacity.

The functions of the "Hubs" would include:

- A concentration of specialised expertise in providing services to groups such as people with special needs, older people, refugees, and homeless people.
- Outreach services to the Spokes.
- Education and training opportunities for staff from the Spokes.

In rural communities, a "Hub" may be a concentration of general clinicians (dentists and oral health therapists) who can provide outreach services to smaller communities. Regional and Rural Oral Health Centres will be created as "Hubs" to link prevention and oral health promotion, access to services, oral health workforce incentives, and specialist care.

An Aboriginal Oral Health Hub and Spoke program has been established, and will serve as a model for future Hub and Spoke arrangements. It consists of a dedicated two chair oral health surgery at Sydney Dental Hospital staffed by an Aboriginal oral health coordinator, four dentists, Aboriginal dental assistants and trainees, and an Aboriginal receptionist. The dentists rotate through rural Aboriginal Medical Services clinics that do not have a dentist as well as seeing Aboriginal clients referred to the Sydney Dental Hospital clinic.

Beyond improving service capacity and delivery of general dental services across NSW, the specialty and statewide services largely provided through the two dental hospitals warrant review and formal clinical service planning. An Oral Health Specialty and Tertiary Clinical Services Plan is being developed.

† This excludes access to general anaesthetics, for which there is eligibility criteria for children.
‡ Each appointment visit is weighted by the actual number and comparative value of the treatment items provided to arrive at the total weighted occasions of service.

Primary and Tertiary Service Delivery Actions	Responsibility	Partners
Develop and implement an Oral Health Specialty and Tertiary Clinical Services Plan that considers specialist services, postgraduate training and research.	COHS, LHDs	ADA
Identify and address inadequacies in existing models of care and incorporate an evidence-based preventive and therapeutic approach to service provision, including timely oral assessments and provision of individual oral health care.	COHS, LHDs, ACI	ADA, AMSs
Further develop and refine outreach initiatives and Hub and Spoke models, through collaboration within and beyond the health system, particularly with the private sector.	COHS, ADA, LHDs,	AMSs
Develop and implement initiatives that encourage greater participation by private sector dentists and other organisations in the treatment of public clients.	COHS, LHDs,	ADA, AMSs
Establish targeted models of care for identified groups that encourage client-centric service provision and prevention, and integration with other health care and community services.	COHS, LHDs, ACI,	ADA, AMSs, NGOs
Consider opportunities to pilot programs whereby dental teams with the appropriate skills provide services to older people in a variety of locations, such as aged care facilities, dental clinics and the home.	COHS, LHDs,	ADA, AMSs, NGOs, Aged Care Sector
Consider opportunities for oral disease to be included in other chronic care programs, such as the Connecting Care Program.	COHS, ACI, LHDs	
Develop and implement an Aboriginal Health Services Plan to improve coordination of services. This will need to ensure that oral health services are culturally appropriate and create easy access and appropriate pathways for Aboriginal and Torres Strait Islander people.	COHS, LHDs	AH&MRC, AMSs

Workforce

The majority of oral health services are provided by the private sector (87%), with a relatively small proportion of all dentists in NSW within the public sector. Dental Board of Australia data[§] indicates that less than seven per cent of dentists in NSW work in the public sector. Other professions employed in oral health services include Aboriginal and Multicultural health workers, nurses, dieticians, radiographers, administrative/ clerical staff and health service managers.

The optimum skill mix and distribution of the oral health workforce requires creating incentives for both the public and private sector, addressing issues of scope of practice, and encouraging dentists in particular to relocate to rural areas. The May 2012 Federal Budget included initiatives to encourage dentists to relocate to regional, rural and remote areas.

To develop the public sector oral health workforce, the following key areas are crucial:

1. Recruitment to the public sector workforce
2. Retention of the public sector workforce
3. Skill mix and skill sets of the public sector workforce
4. Distribution of the public sector workforce
5. Use of the non-dental workforce.

The implementation of the Ministry's *Health Professionals Workforce Plan 2012–2022*[15] as it relates to oral health will require consideration of each of the five areas above. Workforce development activities will need to be developed in partnership with key stakeholders such as Health Workforce Australia and the private dental sector. Innovative approaches to partnership with the private dental sector will require exploration.

§ The Dental Board of Australia data for NSW (2012) show that there are 4706 registered dentists (including specialists) in NSW. NSW Government data (2011) indicates that there are approximately 289 dentists (including specialists) in the public sector. The figures should be interpreted cautiously as the Dental Board data will include those not actively practising, and there are different timeframes for the Dental Board data and the public sector data.

Workforce Development Actions	Responsibility	Partners
Collaborate with the Commonwealth Government and the private sector to encourage the relocation of dentists to regional, rural and remote areas.	COHS, Workforce Development and Innovation Branch, LHDs	ADA
Establish additional dental and oral health therapist positions, supported with appropriate infrastructure to provide appropriate services to a wider section of the eligible population.	COHS, LHDs	
Expand the role of dental hygienists and oral health therapists, particularly in the area of providing oral health services to older people in residential aged care and oral health promotion in community clinics.	COHS	
Review and improve NSW Health initiatives for the recruitment and retention of public sector oral health staff in rural communities.	COHS, Workforce Development and Innovation Branch	
Encourage non-dental health professionals to undertake appropriate oral health training courses to better meet the oral health needs of their clients.	COHS, Workforce Development and Innovation Branch	
Improve the distribution and skill mix of the public sector oral health workforce, taking into account the high oral health needs of groups such as Aboriginal people, people in rural communities, older people, people with special needs, refugees, and children in out-of-home care.	COHS, Workforce Development and Innovation Branch, LHDs	
Work with the education providers to encourage more Aboriginal students undertaking study that leads to acceptance into oral health careers of their choice.	COHS, Workforce Development and Innovation Branch,	
Increase the proportion of Aboriginal and Torres Strait Islander people in the public sector oral health workforce by implementing strategies to attract and retain Aboriginal people to the workforce.	Workforce Development and Innovation Branch	
Encourage dental and oral health graduates to take up positions in rural LHDs.	COHS, LHDs,	ADA
Ensure that senior oral health staff in rural centres are retained by offering opportunities to undertake advanced clinical training, research and teaching.	COHS, LHDs, HETI	

Professional Education

Graduate Year Programs

A range of education and training programs are in place for the career development of new dental graduates within LHDs, and the Commonwealth Government is also committing funding to graduate year programs for dentists and oral health therapists.[1] NSW Health will need to work closely with the Commonwealth in the implementation of their programs to ensure the benefits are maximised and are complementary to existing programs within NSW.

Student Placements

The NSW public oral health system plays an important role in supporting the education and training of dental and oral health students, by providing placements in public clinics.

The clinical education of students takes place over the course of the academic year. ClinConnect[16] — a web-based application developed by the Ministry of Health — is the mechanism used by universities in seeking clinical placements for dental and oral health students and by LHDs in providing them.

Increasing public sector service capacity¶ by, establishing graduate year programs, along with existing student placements in NSW, will require LHDs to balance service provision against education and training, especially in the use of senior dental and oral health staff, and dental chairs.

Continuing Professional Development

Continuing professional development (CPD) is the systematic maintenance, improvement, and broadening of knowledge and skills, and the development of personal qualities and values necessary for the conduct of professional duties throughout a person's working life.

A compulsory CPD program was established by the Dental Board of Australia in July 2010 to ensure professional members maintain professional competence; update their existing knowledge and skills; and attain new or additional knowledge and skills.

Given this compulsory requirement, LHDs need to ensure that staff development and education programs are eligible for CPD points. The role of the HETI in the consolidation of dental clinical teaching and education coordination will need to be considered.

Education and Training of the Non-Dental Workforce

As described earlier, oral health is part of general health, and hence the broad health workforce needs to be up-skilled with regard to basic oral health care where appropriate. The Community Services and Health Industry Skills Council (CSHISC) project Development of Oral Health Competencies for the Community Services and Health Workforce,[17] led to the development of seven TAFE-based modules. These are aimed at Aboriginal and Torres Strait Islander workers, nurses, aged care workers, childcare workers, and others in similar roles, in recognition that they already provide some basic oral health care to their clients and, with appropriate training, could be more effective. The Commonwealth Government also has programs to train aged care workers in ensuring residents' daily oral hygiene is maintained.

Some oral health education and training is provided to health and community practitioners by oral health staff but on a more informal basis.

¶ Dependent on Commonwealth funding initiatives.

Professional Education Actions	Responsibility	Partners
Develop and implement a consistent approach across NSW to the recruitment and professional development of new dental graduates.	COHS, LHDs, Workforce Development and Innovation Branch	
Collaborate with the Commonwealth and other stakeholders in the implementation of graduate year programs.	COHS, LHDs, HETI, Workforce Development and Innovation Branch	
Facilitate the ClinConnect scheme in NSW to ensure appropriate opportunities for clinical placements.	Workforce Development and Innovation Branch	
Encourage universities to adopt the model that the "dental team" becomes the basis for training of oral health practitioners in NSW.	COHS	ADA, Universities, Health Workforce Australia
Collaborate with HETI, the ADA (NSW), universities and other education providers in the development of a suite of education courses appropriate to the public sector that meet CPD requirements.	COHS, HETI,	ADA
Support the professional development of oral health professionals from rural and regional centres in oral health care for people with chronic conditions and special needs.	HETI,	ADA
Encourage non-dental professionals to undertake relevant modules in oral health.	HETI	Industry Skills Council
Provide nursing, medical and allied health personnel with information, knowledge and skills to ensure the recognition of oral health as an integral component of general health.	HETI	
Develop oral health education programs for carers and other health professionals that encourage prevention, early identification and referral.	HETI	ADA, Universities, TAFE
Advocate for educational opportunities to build the capacity of Aboriginal health workers.	COHS	AH&MRC, AMSs
Encourage staff who work with older people in Nursing Homes to undertake the Better Oral Health in Residential Care Program.	COHS, LHDs	NGOs, Aged Care Sector, Department of Health and Ageing

Data, Research and Evaluation

Population oral health and dental health services research, ongoing monitoring of service quality and efficiency data, and evaluation of existing programs, are all required to build an evidence base on the changing oral health status of the population (including sub-population groups), and to describe access to, and benefit from, dental services and programs. Data, research and evaluation efforts into the future will need to focus on:

1. **Service data** — to ensure enhancements in the reporting of dental health services quality and performance
2. **Oral Health Services Research** — to identify new models of care and opportunities to increase effectiveness and efficiency within service delivery
3. **Program Evaluation** — to provide information on the efficiency and effectiveness of new and existing programs, including health promotion and Aboriginal health initiatives
4. **Oral Health Epidemiology** — to describe the oral health status of the population.

It is recognised that NSW Health will need to work in partnership with many stakeholders, such as Universities and the ACI, to encourage and facilitate improved data collection and reporting, and evaluation and research in the required program areas.

Data, Research and Evaluation Actions	Responsibility	Partners
Identify potential collaborators and funding opportunities to support the data collection and evaluation research priorities.	COHS, Centre for Epidemiology & Evidence	
Communicate and disseminate performance data and research and evaluation findings so they can be used by non-government organisations, dental professionals and policy makers.	COHS, Centre for Epidemiology & Evidence	ADA
Ensure that evaluations and research concerning Aboriginal and Torres Strait Islander people is based on the key Aboriginal health principles and action-oriented — leading to improved oral health.	COHS, Centre for Epidemiology & Evidence	AH&MRC, AMSs
Encourage research and evaluation into the oral health and dental service needs of priority population groups.	COHS, Centre for Epidemiology & Evidence	AH&MRC

Monitoring Progress

Overall the progress of this Framework will be measured by determining whether its Goals have been achieved: improved access, reduced disparities, and improved oral health.

The overarching performance indicators include:

1. A **reduction** in the percentage of people across all age groups who:
   - are edentulous
   - have any decayed teeth
   - have periodontitis.
2. An **increase** in the percentage of people across all age groups who:
   - have ten or more occluding pairs of teeth.
3. Ensure clinically appropriate and quality services by maintaining **low levels** of:
   - re-treatment following restorative treatment
   - denture remake.

These indicators will be measured using oral health surveys that include a dental examination, in conjunction with routine monitoring of the health status of the population through self-report surveys.

Oral health data plays an important role in the efficient management of services and therefore in achieving better oral health outcomes for the community. It is important that all LHDs have access to timely and appropriate information on clinical safety, performance, and productivity. The Information System for Oral Health (ISOH) was implemented in 2000–2001, and encompasses the Priority Oral Health Program (POHP) triage system that prioritises clients for clinical care. This system assists oral health services in NSW in:

1. adhering to NSW Health prioritisation policies
2. managing waiting lists
3. providing useful de-identified data on utilisation rates and types of treatment provided.

The ISOH and its associated applications will continue to be developed and enhanced.

Key Performance Indicators (KPI) are currently collected through ISOH and used to monitor efficiency of the delivery of public dental services. These include — but are not restricted to — Weighted Occasions of Service (WOOS), clinical hours and waiting times.

Revised systems and analytical processes are being introduced to keep abreast of changing accountability requirements and electronic data capture. Referral pathways and processes continue to be developed and implemented as links between oral health and general health are consolidated. Included in this latter group are the introduction of the electronic oral health record and digital imaging.

Beyond routinely collected indicators, program evaluations for key initiatives will also provide information about how successful programs have been, and identify opportunities to improve program rollout.

References

1. Commonwealth of Australia. Budget Paper No. 2, Budget Measures 2012–13. Canberra: Commonwealth of Australia, 2012.

2. Garden F, Moore H, Jorm L. The current and future health status of the New South Wales population (summary report). Sydney: NSW Department of Health, 2005.

3. Australian Health Ministers' Advisory Council, Steering Committee for National Planning for Oral Health. Oral health of Australians: national planning for oral health improvement: final report. Adelaide: South Australian Department of Human Services, 2001.

4. Centre for Oral Health Strategy NSW. The New South Wales Child Dental Health Survey 2007. Sydney: NSW Department of Health, 2009. Available at www.health.nsw.gov.au/cohs (accessed 19/07/2012).

5. Sivaneswaran S. The oral health of adults in NSW, 2004–06. NSW Public Health Bulletin 2009; 20 (3–4): 46–51. Available at www.publish.csiro.au/paper/NB08066.htm (accessed 19/07/2012).

6. NSW Department of Health, Centre for Epidemiology and Research. 2010 Report on Adult Health from the New South Wales Population Health Survey. Sydney: NSW Department of Health, 2011. Available at www.health.nsw.gov.au.

7. Slade G, Spencer A, Roberts-Thomson K. Australia's dental generations: the National Survey of Adult Oral Health 2004–06. Canberra: Australian Institute of Health and Welfare, 2007: 239.

8. Douglass J, Douglass A, Silk H. A practical guide to infant oral health. American Family Physician. 2004; 70: 2113–22.

9. NSW Department of Health. Aboriginal Health Impact Statement and Guidelines. Policy Directive PD2007_082. Sydney: NSW Department of Health, 2007.

10. Commonwealth Department of Health and Ageing. Better Oral Health in Residential Care Training Project. Available at www.health.gov.au/betteroralhealthtraining (accessed 18/07/2012).

11. Australian Institute of Health and Welfare Dental Statistics and Research Unit. Geographic variation in oral health and use of dental services in the Australian population 2004–06: Research Report 41. Adelaide: AIHW Dental Statistics and Research Unit, 2009. Available at www.arcpoh.adelaide.edu.au/publications/report/research/pdf_files/rr41_geographic.pdf (accessed 19/07/2012).

12. Acheson D. Independent inquiry into inequalities in health. London: Stationery Office, 1998.

13. Spencer A, Slade G, Davies M. Water fluoridation in Australia, Community Dent Health 1996; 13 (Suppl 2):27–37.

14. Sivaneswaran, Shanti (2012). The Revival of Water Fluoridation in the State of New South Wales, Australia, in the 21st Century. Comm Dent Oral Epidemiol 2012; 40 (Suppl 2):65–70.

15. NSW Ministry of Health. Health Professionals Workforce Plan 2012–2022. Sydney: NSW Ministry of Health, 2012. Available at www.health.nsw.gov.au (accessed 14/01/13).

16. NSW Ministry of Health. Clinconnect. Sydney: NSW Department of Health, 2012. Available at www.health.nsw.gov.au/clinicalplacements (accessed 18/07/2012).

17. Community Services and Health Industry Skills Council. Development of Oral Health Competencies for the Community Services and Health Workforce. Community Services and Health Industry Skills Council. Available at www.cshisc.com.au (accessed 19/07/2012).

Abbreviations and Acronyms

AH&MRC	Aboriginal and Medical Research Council of New South Wales
ACI	Agency for Clinical Innovation
CEC	The Clinical Excellence Commission
HETI	Health Education and Training Institute
LHD	Local Health District
OHFFSS	Oral Health Fee for Service Scheme
COHS	Centre for Oral Health Strategy
DMFT	Decayed, Missing, Filled Teeth
ECC	Early Childhood Centres
ECOH	Early Childhood Oral Health Program
MPS	Multi Purpose Services
CPD	Continuing Professional Development
CSHISC	Community Services and Health Industry Skills Council
ISOH	Information System for Oral Health
POHP	Priority Oral Health Program
KPI	Key Performance Indicators
WOOS	Weighted Occasions of Service

SHPN (CEE) 120487