

Oral health and dental care in Australia

Tranche 2 (20 March 2019)

Blurb

This report presents key data, information and trends over time, via a suite of interactive data visualisations, describing the oral health status of Australians and their use of dental care services. It will be added to and updated progressively as data becomes available. Australians aged 15 and over have an average of 12.8 decayed, missing or filled teeth. In 2016–17, about 70,200 hospitalisations for dental conditions may have been prevented with earlier treatment.

This report was last updated on 20 March 2019. Refer to notes for further explanation.

Latest findings

1. Australians aged 15 and over have an average of 12.8 decayed, missing or filled teeth
2. In 2014–15, about 1 in 2 Australians had seen a dentist or dental professional in the last 12 months
3. About 7 in 10 children aged 5–14 brush their teeth with toothpaste at least twice a day
4. In 2016–17, about 70,200 hospitalisations for dental conditions may have been prevented with earlier treatment
5. Over 1 million dental prescriptions were dispensed in Australia each year (2013–2017)
6. On average, Australians spent \$7.62 per week on dental fees in 2015–16
7. Around 9 in 10 Australians aged 15 and over reported that the dental professionals they saw always showed them respect
8. In 2016, there were 57.7 dentists per 100,000 population in Australia

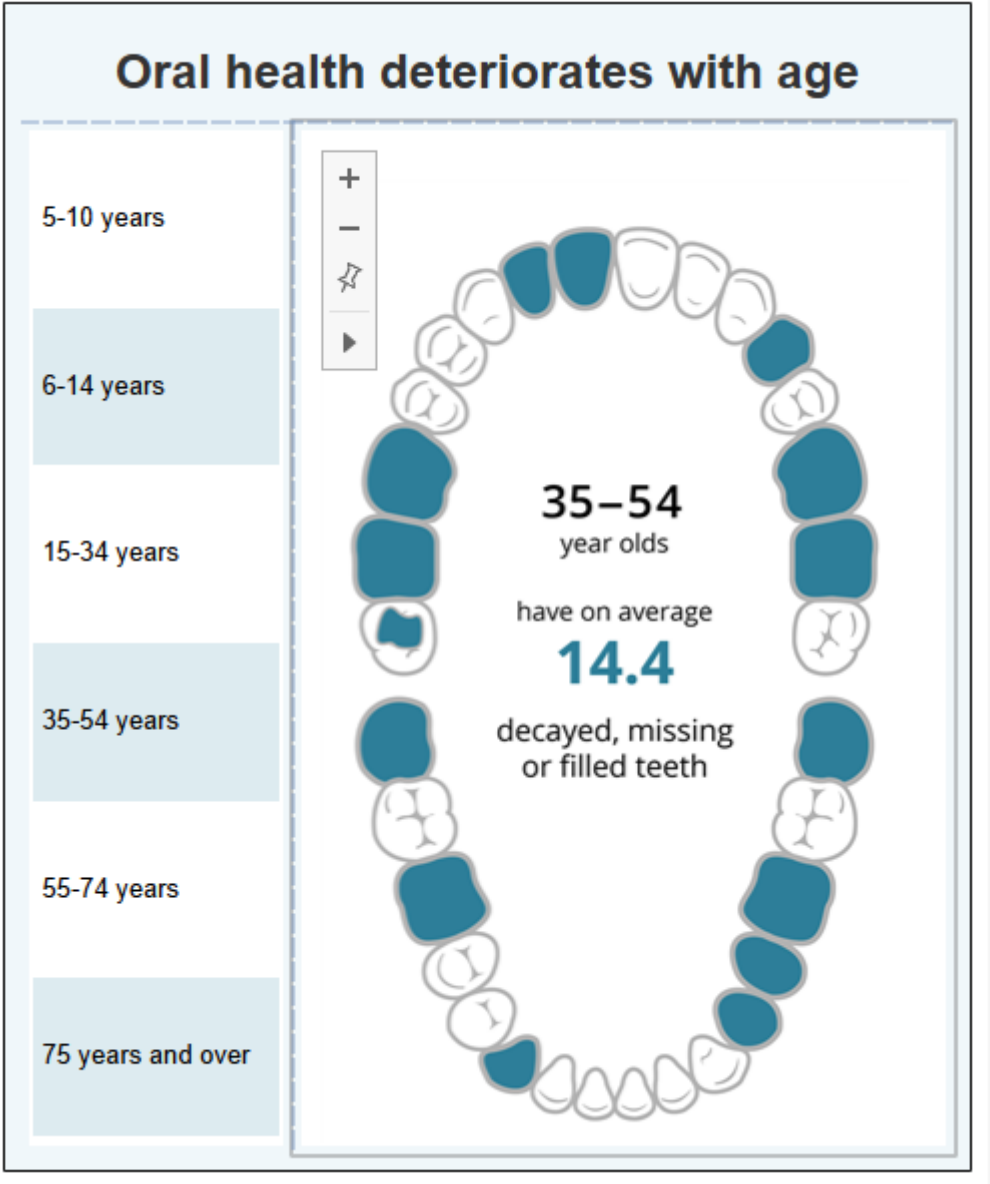
Topic/s (mandatory)

Dental and oral health

Introduction

Good oral health is fundamental to overall health and wellbeing (COAG 2015). Without it, a person’s general quality of life and the ability to eat, speak and socialise is compromised, resulting in pain, discomfort and embarrassment.

Oral health refers to the condition of a person’s teeth and gums, as well as the health of the muscles and bones in their mouth (AHMAC 2017). Poor oral health—mainly tooth decay, gum disease and tooth loss—affects many Australian children and adults, and contributed 4.4% of all the burden that non-fatal burden diseases placed on the community in 2011. Oral health generally deteriorates over a person’s lifetime (Infographic 1).



What contributes to poor oral health?

Many factors contribute to poor oral health (NACDH 2012), including:

- consumption of sugar, tobacco and alcohol
- a lack of good oral hygiene and regular dental check-ups
- a lack of fluoridation in some water supplies
- access and availability of services, including:
 - affordability of private dental care
 - long waiting periods for public dental care.

What is the impact of poor oral health?

The most common oral diseases affect the teeth (tooth decay, called 'caries') and gums (periodontal disease). Oral disease can destroy the tissues in the mouth, leading to lasting physical and psychological disability (NACDH 2012). Tooth loss can reduce the functionality of the mouth, making chewing and swallowing more challenging, which in turn can compromise nutrition. Poor nutrition can impair general health and exacerbate existing health conditions (NACDH 2012). Poor oral health is also associated with a number of chronic diseases, including stroke and cardiovascular disease (DHSV 2011) (Figure 1).

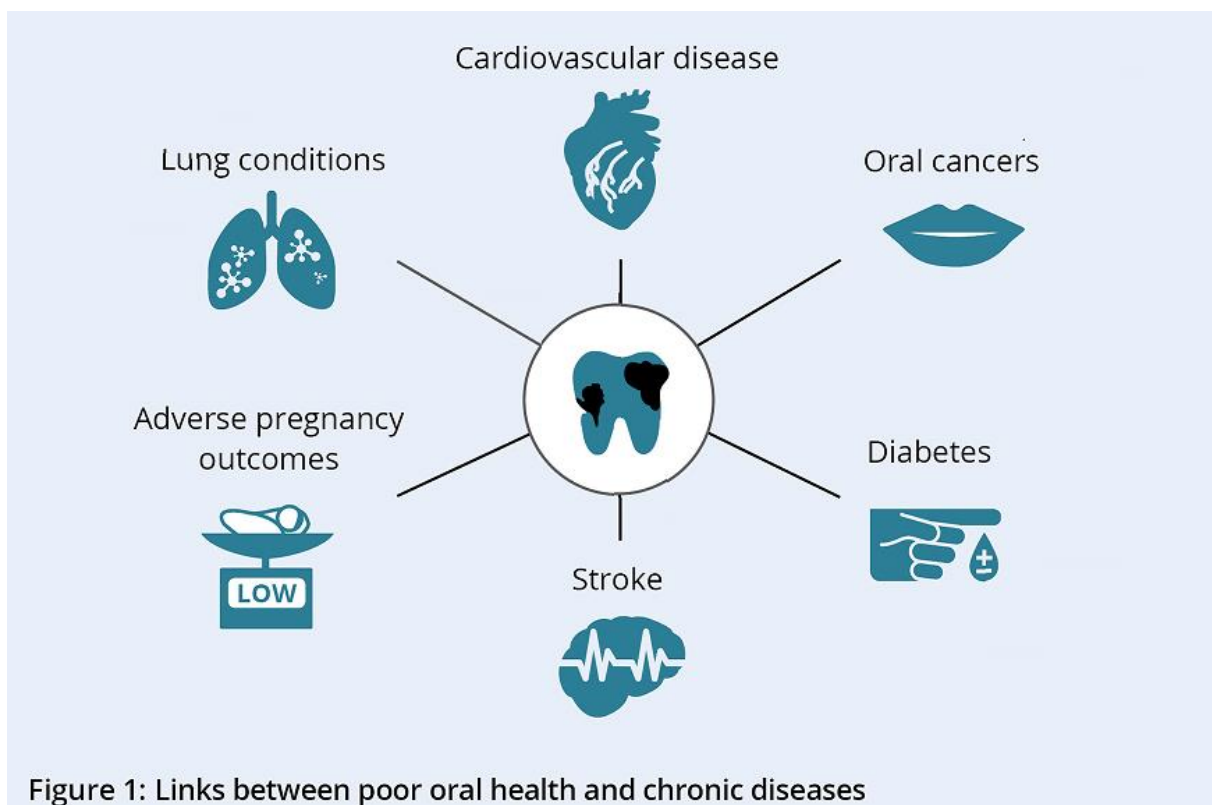


Figure 1: Links between poor oral health and chronic diseases

Poor oral health can also affect a person's wellbeing. Dental disease can impair a person's appearance and speech, eroding their self-esteem, which in turn can lead to restricted participation at school, the workplace, home and other social settings (NACDH 2012).

Some groups are at greater risk of poor oral health

The National Oral Health Plan identifies four priority population groups that have poorer oral health than the general population and also experience barriers to accessing oral health care—either in the private or public sector. State and territory governments are the current providers of most public dental services, and access is largely targeted towards people on low incomes or holders of concession cards. Eligibility requirements can vary between states and territories (AIHW 2018).

The four priority population groups identified in the plan are:

People who are socially disadvantaged or on low incomes: This group has historically been identified as those on a low income and/or receiving some form of government income assistance, but now extends to include people experiencing other forms of disadvantage including refugees, homeless people, some people from culturally and linguistically diverse backgrounds, and people in institutions or correctional facilities (COAG 2015). Poorer oral health results from infrequent dental care. Barriers include cost, appropriateness of service delivery and lower levels of health literacy, including oral health (COAG 2015).

Aboriginal and Torres Strait Islander Australians: Indigenous Australians are more likely than other Australians to have multiple caries and untreated dental disease, and less likely to have received preventive dental care (AHMAC 2017). The oral health status of Indigenous Australians, like all Australians, is influenced by many factors and a tendency towards unfavourable dental visiting patterns, broadly associated with accessibility, cost and a lack of cultural awareness by some service providers (COAG 2015; NACDH 2012).

People living in regional and remote areas: Overall, this group has poorer oral health than those in *Major cities* (COAG 2015), and oral health status generally declines as remoteness increases. Rural Australians have access to fewer dental practitioners than their city counterparts, which, coupled with longer travel times and limited transport options to services, affects the oral health care that they can receive (COAG 2015; Bishop & Lavery 2015). People living in *Remote* and *Very remote* areas are also more likely to smoke and drink at risky levels. They have reduced access to fluoridated drinking water and face increased costs of healthy food choices and oral hygiene products. These risk factors contribute to this population's overall poorer oral health (COAG 2015).

People with additional and/or specialised health care needs: This group includes people living with mental illness, people with physical, intellectual and developmental disabilities, people with complex medical needs and frail older people. These people can be vulnerable to oral disease; for example, some medications for chronic diseases can cause a dry mouth, which increases the risk of tooth decay (Queensland Health 2008). A number of factors make accessing dental care more difficult for this group, including:

- a shortage of dental health professional with skills in special-needs dentistry
- difficulties in physically accessing appropriate dental treatment facilities
- the cost of treatment. People with additional and/or specialised health care needs often have their earning capacity eroded by ill health (COAG 2015).

Why does oral health vary across Australia?

People in some states and territories have generally poorer oral health than others. For example, the National Child Oral Health Study found that the prevalence of caries in the deciduous teeth of children was significantly higher in Northern Territory and Queensland than in all other states and territories (Do & Spencer 2016). Oral health status is influenced by a complex interaction of factors, as outlined above. These factors should be considered when looking at results by state and territory. For example:

- all people living in the Northern Territory were located in *Outer regional, Remote* or *Very remote* areas, whereas the majority of the Victorian population were located in *Major cities* in 2016 (ABS 2018a)
- the Northern Territory has Australia's highest proportion of Aboriginal and Torres Strait Islander people (26% of its population) which is much higher than the next highest state, Tasmania (4.6% of its population) (ABS 2017)
- Tasmania has the highest proportion of people living in the lowest socioeconomic areas (37%) (refer to Technical notes for explanation of SEIFA) (ABS 2018b).

The variations observed in oral health status between state and territory populations may also be partly explained by differences in individual state and territory oral health care funding, service models and eligibility requirements, which can result in varied patterns of dental visiting among residents (AIHW 2018). Oral health campaigns and policies can also make an impact. For example, water fluoridation coverage in Queensland has reduced since the Queensland Government transferred the decision whether to fluoridate water supplies from state to local governments in 2008, despite evidence that access to fluoridated drinking water has been shown to reduce tooth decay (Queensland Health 2015; NHMRC 2017).

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Healthy teeth

Healthy teeth are an integral part of good oral health and enable people to eat, speak and socialise without pain, discomfort or embarrassment.

Key terms

- **Deciduous teeth:** Primary or 'baby' teeth that erupt (that is, become visible in the mouth) during infancy. A child usually has 20 deciduous teeth.
- **Permanent teeth:** Secondary or 'adult' teeth that start to erupt at around 6 years of age. A person usually has 32 permanent teeth.
- **Dental caries:** A disease process that can lead to cavities (small holes) in the tooth structure that compromise both the structure and the health of the tooth, commonly known as tooth decay.
- **The dmft and DMFT score:** A score that counts the number of teeth that are decayed (d), missing due to caries (m) or filled because of caries (f)— 'dmft' refers to deciduous teeth, 'DMFT' refers to permanent teeth.
- **Dental caries experience:** When a person has a dmft or DMFT score that is greater than zero, this is known as having dental caries experience.

How healthy are children's teeth?

Data in this section were sourced from the National Child Oral Health Study 2012–14 (Do & Spencer 2016). This nationally representative population-based survey involved data from almost 25,000 children aged 5–14 from across Australia. Information was collected via a parental questionnaire and a detailed dental examination by trained dental professionals.

In 2011, oral diseases accounted for 7.8% and 4.2% of the non-fatal burden of disease among Australia children aged 5–9 and 10–14, respectively. Almost all (99%) non-fatal burden is due to dental caries making it the most prevalent oral disease in Australian children.

How many teeth are affected by decay?

The average number of teeth affected by decay gives an indication of the severity of disease.

Australian children aged 5–10 had an average of 1.5 decayed, missing and filled deciduous teeth

Dental caries experience for deciduous teeth of 5–10 year olds varied between states and territories. Interactive 1 shows that dmft:

- was highest in Northern Territory children with an average of 2.4 affected teeth per person, followed by Queensland children (2.1)
- was lowest for children in the Australian Capital Territory (1.0).

Australian children aged 6–14 had an average of 0.5 decayed, missing and filled permanent teeth

Dental caries experience for permanent teeth in 6–14 year olds varied between states and territories. Interactive 1 shows that DMFT:

- was highest in Northern Territory and Queensland children with an average of 0.8 affected teeth per person
- was lowest for children in the Australian Capital Territory (0.2).

The data for this section was presented in Healthy teeth Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

How does tooth decay vary for different populations?

Oral health is determined by a complex interaction of factors, including social, economic, environmental and cultural factors, as described in the introduction. Some populations face greater challenges in accessing oral health care and experience the greatest burden of poor oral health. A key indicator of the oral health status of a population is the dental caries experience (Interactive 2).

Children aged 5–10 with dental caries in their deciduous teeth were more likely to have last visited the dentist for a dental problem (68%) than for a check-up (36%)

Around 4 in 10 (42%) children aged 5–10 had experienced dental caries in their deciduous teeth. The proportion was:

- 1.5 times as high for Indigenous children (61%) as non-Indigenous children (41%)
- higher for those from low-income households (50%) than those from medium-income households (40%) and high-income households (33%)
- 1.4 times as high for those living in *Remote and very remote* areas as those living in *Major cities*.

Indigenous children (44%) aged 5–10 were more likely to have had at least one deciduous tooth with untreated decay than non-Indigenous children (26%)

Around 1 in 4 (27%) children aged 5–10 had at least one deciduous tooth with untreated decay. The proportion was:

- lower for children from high-income households (18%) than those from medium-income households (25%) and low-income households (36%)
- higher for those living in *Remote and very remote* locations (38%) than those living in all other locations
- almost twice as high for those whose reason for their last dental visit was for a dental problem (42%) than for those who went for a check-up (22%).

Children aged 6–14 with dental caries in their permanent teeth were more likely to have last visited the dentist for a dental problem (32%) than for a check-up (22%)

Around 1 in 4 (24%) children aged 6–14 had experienced dental caries in their permanent teeth. The proportion was:

- higher for Indigenous children (36%) than non-Indigenous children (23%)
- higher for those from low-income households (28%) than those from medium-income (22%) and high-income (19%) households
- higher for those living in *Remote and very remote* areas (28%) than those living in *Major cities* (22%).

Indigenous children (23%) aged 6–14 were more likely to have had at least one permanent tooth with untreated decay than non-Indigenous children (10%)

Around 1 in 10 (11%) children aged 6–14 had at least one permanent tooth with untreated decay. The proportion was:

- higher for those from low-income households (15%) than those from medium-income (9.2%) and high-income (6.6%) households
- twice as high for those living in *Remote and very remote* areas (22%) than those living in *Major cities* (9.9%)
- higher for those who last visited the dentist for a dental problem (15%) than those who last visited the dentist for a check-up (9.3%).

The data for this section was presented in Healthy teeth Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

How does tooth decay vary across states and territories?

Levels of dental caries in Australian children varies across states and territories. This is partly related to differences in dental programs and policies implemented in each jurisdiction, and varying sociodemographic and socioeconomic profiles (Interactive 3).

Just over half (53%) of children aged 5–10 in the Northern Territory had dental caries in their deciduous teeth, and around 4 in 10 (40%) have at least one deciduous tooth with untreated decay

Around 4 in 10 (42%) Australian children aged 5–10 had dental caries in their deciduous teeth, and around 1 in 4 (27%) had at least one deciduous tooth with untreated decay.

The proportion of children with dental caries was lowest in the Australian Capital Territory (32%), while the proportion of children with untreated decay was lowest in South Australia (17%).

Around one-third (33%) of Northern Territory children aged 6–14 had dental caries experience in their permanent teeth, and around 1 in 5 (20%) had at least one permanent tooth with untreated decay

Around 1 in 4 (24%) Australian children aged 6–14 had dental caries in their permanent teeth, and around 1 in 10 (11%) had at least one permanent tooth with untreated decay.

The proportion of children with dental caries was lowest in the Australian Capital Territory (13%), while the proportion of children with untreated decay was lowest in South Australia (3.5%).

The data for this section was presented in Healthy teeth Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

How healthy are adult's teeth?

Data in this section were sourced from the National Survey of Adult Oral Health 2004–06 (Slade et al. 2007; AIHW 2008a–h). This population-based survey collected data from more than 14,000 adults aged 15–97 across Australia. Information was collected via interview and around one-third of participants underwent a dental examination.

This survey found that most Australian adults have some experience of dental decay— fewer than 1 in 10 (9.9%) adults had no experience of dental decay in their permanent teeth.

How many teeth are affected by decay?

Australian adults aged 15 years and over had an average of 12.8 decayed, missing and filled teeth

The number of decayed, missing and filled teeth (DMFT) reflects a person's lifetime experience of dental caries in their permanent teeth. The DMFT index is a cumulative score (that is, it measures all evidence of decayed, missing and filled teeth over a person's life) and is therefore strongly associated with age.

The average number of teeth affected by dental caries per person in Australia increased with age, from an average of 4.5 in 15–34 year olds to 14.4 in 35–54 year olds, 22.2 in 55–74 year olds and 24.3 in people aged 75 and older

The average DMFT per person was:

- lowest in the Northern Territory (10.7), where it ranges from an average of 5.0 affected teeth in 15–34 year olds to 22.1 in those aged 55 years and over

The data for this section was presented in Healthy teeth Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

Whose teeth are affected by tooth decay?

In addition to age, DMFT scores also reflect different exposures to risk factors and protective factors a person has during their life (Interactive 5).

Indigenous adults aged 15 and over had an average of 14.8 teeth with caries experience compared to 12.8 teeth for non-Indigenous adults.

- On average, females aged 15 and over had slightly more teeth with caries experience than males, 13.3 and 12.4 respectively.
- Adults who completed Year 9 or less of schooling had a higher average number of decayed, missing and filled teeth (17) compared with those who had completed additional schooling. For those who had completed Year 9 or less, the number of teeth affected increased with age from an average of 18 teeth in 35–54 year olds, 23 in 55–74 year olds and 24 in people aged 75 and over.
- Adults who were eligible for public dental care had a higher average number of decayed, missing and filled teeth (15.8) compared with those who were ineligible for public dental care. For those eligible for public dental care, the number of teeth affected increased with age, from an average of 4.8 in 15–34 year olds to 15.4 in 35–54 year olds, 22.8 in 55–74 year olds and 24.2 in those aged 75 and over.

The data for this section was presented in Healthy teeth Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.

How does untreated tooth decay vary across states and territories?

Untreated tooth decay reflects both the prevalence of dental decay in the population and access to dental care for treatment (Interactive 6).

Around 1 in 4 (26%) adults aged 15 and over with their own teeth have at least one tooth with untreated dental decay.

The percentage of adults with at least one tooth with untreated dental decay was highest in the Northern Territory (35%)

The data for this section was presented in Healthy teeth Interactive 6 – refer to the corresponding worksheet in the Data tables file for the historical data.

Who has untreated tooth decay?

The prevalence of untreated tooth decay is more closely related to socioeconomic and sociodemographic factors than to age (Interactive 7).

Adults aged 15 and over who usually visited the dentist for a problem were more than twice as likely as those who usually visited for a check-up to have at least one tooth with untreated dental decay (37% compared with 16%)

- Around 1 in 2 (57%) Indigenous adults had at least one tooth with untreated dental decay compared with around 1 in 4 (25%) non-Indigenous adults.
- A greater percentage of adults who lived outside the capital cities (33%) had at least one tooth with untreated dental decay than those who lived in the capital cities (22%).
- More adults eligible for public dental care (33%) had at least one tooth with untreated dental decay than those ineligible for public dental care (23%).
- Fewer adults with private dental insurance (19%) had at least one tooth with untreated dental decay than those without dental insurance (31%).

The data for this section was presented in Healthy teeth Interactive 7 – refer to the corresponding worksheet in the Data tables file for the historical data.

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Healthy mouths

Maintaining a healthy mouth relies upon practising good oral hygiene. Regular toothbrushing removes and controls the build-up of plaque, and helps to prevent tooth decay, gum disease and tooth loss. In Australia, it is recommended that people brush their teeth twice a day using fluoride toothpaste (DoH 2018).

Key terms

- **Plaque:** A biofilm containing bacteria and food debris that adheres to the tooth surface.
- **Plaque index:** A measure of plaque from 0–3, devised by Loe & Silness (1964), where:
 - 0 = no plaque
 - 1 = mild accumulation of plaque
 - 2 = moderate accumulation of plaque
 - 3 = abundant accumulation of plaque.
- **Gingivitis:** Redness, swelling or bleeding of the gums caused by inflammation.
- **Gingival index:** A measure of gingivitis from 0–3, devised by Loe & Silness (1963), where:
 - 0 = normal
 - 1 = mild inflammation (no bleeding on probing)
 - 2 = moderate inflammation (bleeding on probing)
 - 3 = severe inflammation (tendency to spontaneous bleeding).
- **Periodontitis:** Inflammation of the gums and other tissues that attach to and anchor teeth to the jaws, caused by a bacterial infection.
- **Exfoliation:** the process of shedding deciduous teeth and their replacement by permanent teeth.
- **Dentate:** having one or more natural teeth.
- **Edentulous:** A state of complete loss of all natural teeth.
- **Inadequate dentition:** Fewer than 21 natural teeth.

Oral hygiene status

An accumulation of dental plaque, typically due to poor oral hygiene practices such as not brushing your teeth properly or regularly, can increase the risk of tooth decay. Data presented in this section were sourced from the National Child Oral Health Study 2012–14 (Do & Spencer 2016).

Around 4 in 10 (43%) of children aged 5–14 years had a moderate accumulation of plaque

The proportion of children aged 5–14 years with a moderate accumulation of plaque was:

- higher for boys (48%) than girls (37%)
- higher for Indigenous children (60%) than non-Indigenous children (42%)
- lower for children from high income households (35%) than from low income households (49%)
- lower for children from *Major cities* (39%) than from *Remote and very remote* (63%) areas
- lower for children who last visited the dentist for a check-up (40%) than those who visited for a dental problem (50%).

The data for this section was presented in Healthy mouths Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

Gingivitis

Gingivitis, or early stage gum disease, is usually caused by a build-up of plaque on teeth and along the gum line. The bacteria in plaque produce toxins that can irritate the gums causing inflammation. Data presented in this section were sourced from the National Child Oral Health Study 2012–14 (Do & Spencer 2016) and the National Survey of Adult Oral Health 2004–06 (Slade et al. 2007).

Around 1 in 5 (22%) children aged 5–14 years had gingivitis

The proportion of children aged 5–14 years with gingivitis was:

- lower for girls (20%) than boys (24%)
- higher for Indigenous children (34%) than non-Indigenous children (21%)
- higher in children from low-income households (26%) than from high-income households (17%)
- higher for children from *Remote and very remote* (38%) than from *Major cities* (20%)
- lower for children who last visited the dentist for a check-up (21%) than those who visited for a dental problem (25%).

Around 1 in 5 (20%) adults aged 15 years and over had gingivitis

The proportion of adults aged 15 years and over with gingivitis was:

- higher for Indigenous adults (27%) than non-Indigenous adults (20%)
- higher for people without dental insurance (23%) than those with dental insurance (16%)
- higher for people eligible for public dental care (24%) than those ineligible for public dental care (18%).

The data for this section was presented in Healthy mouths Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Periodontitis

If left untreated, gingivitis can develop into a more serious form of gum disease known as periodontitis. Periodontitis, or advanced stage gum disease, damages the soft tissue and bone supporting the teeth which can cause the teeth to become loose, which in turn can lead to tooth loss. Data presented in this section were sourced from the National Survey of Adult Oral Health 2004–06 (Slade et al. 2007).

The proportion of adults with moderate or severe periodontitis increased with age, ranging from 7.4% in 15–34 year olds, 25% in 35–54 year olds, 44% in 55–74 year olds and 61% in those aged 75 years and over

The proportion of adults aged 15 years and over with moderate or severe periodontitis was:

- higher for males (27%) than females (19%)
- nearly twice as high for those people who had completed Year 9 or less of schooling (39%) than those who had completed Year 10 or more of schooling (21%)
- 1.5 times as high for people who last visited the dentist for a problem (28%) than those who last visited for a check-up (19%)
- higher for those people eligible for public dental care (34%) than those people ineligible for public dental care (20%).

The data for this section was presented in Healthy mouths Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

Tooth retention and loss

Tooth loss can affect both oral function and appearance, and therefore negatively impact on quality of life. Limited oral function is also associated with deteriorating diet and compromised nutrition, which can adversely impact on overall health (NACDH 2012).

Children with missing teeth

The data presented were sourced from the National Child Oral Health Study 2012–14 (Do & Spencer 2016) and reflect teeth lost due to dental decay only, and therefore do not include teeth lost due to exfoliation or dental trauma (e.g. as a result of injury).

Around 1 in 20 children aged 5–10 years have at least one deciduous tooth missing due to dental caries

Children aged 5–10 years with at least one deciduous tooth missing due to dental caries were more likely to be:

- Indigenous (9.7%) than non-Indigenous (5.3%)
- from *Remote and very remote areas* (9.6%) than from *Major cities* (4.9%)
- from low-income households (9.3%) than from medium-income households (4.3%) and high-income households (2.9%)
- those who last visited the dentist for a dental problem (17%) than those who last visited for a check-up (3.5%).

Around 1 in 100 children aged 6–14 years have at least one permanent tooth missing due to dental caries

Children aged 6–14 years with at least one permanent tooth missing due to dental caries were more likely to be:

- female (1.0%) than male (0.5%)
- Indigenous (1.4%) than non-Indigenous (0.7%)
- those who last visited the dentist for a dental problem (1.4%) than those who last visited for a check-up (0.6%)

The data for this section was presented in Healthy mouths Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

Adults with missing teeth

The data presented in this section were sourced from the National Survey of Adult Oral Health 2004–06 (Slade et al. 2007). Adults who have no natural teeth are classified as edentulous, whereas those who have at least one natural tooth are classified as dentate. Only dentate adults were assessed for inadequate dentition (fewer than 21 teeth).

Dentate adults aged 15 years and over had an average of 4.5 teeth missing due to dental decay and periodontal disease

- The average number of missing teeth increased with age, ranging from 0.8 teeth in 15–34 year olds, 3.9 teeth in 35–54 year olds, 10.2 teeth in 55–74 year olds to 14.1 teeth in those aged 75 years and over.
- On average, adults who completed Year 9 or less of schooling had more than twice as many missing teeth as those who completed Year 10 or more of schooling, 9.0 and 4.0 respectively.
- The average number of missing teeth for adults eligible for public dental care (7.6) was around double that of those ineligible for public dental care (3.5).

The proportion of adults with inadequate dentition (fewer than 21 teeth) increased with age, ranging from 0.4% in 15–34 year olds to 55% in those aged 75 years and over

- On average, around 1 in 10 (11%) adults aged 15 years and over had inadequate dentition.

- Adults eligible for public dental care (27%) were around four times as likely to have inadequate dentition than those ineligible for public dental care (6.7%).
- Adults who completed Year 9 or less of schooling (34%) were around four times as likely to have inadequate dentition than those who completed Year 10 or more of schooling (8.6%).
- Adults who had inadequate dentition were twice as likely to have last visited the dentist for a dental problem (16%) rather than a check-up (7.8%).

The proportion of adults with complete tooth loss increased with age, ranging from 1.7% in 35–54 year olds, 14% in 55–64 year olds to 36% in those aged 75 years and over. There were no 15–34 year olds with complete tooth loss.

- On average, 1 in 15 (6.4%) adults aged 15 years and over had complete tooth loss.
- Adults eligible for public dental care (17%) were around six times as likely to suffer complete tooth loss than those ineligible for public dental care (2.7%).
- Adults who completed Year 9 or less of schooling (22%) were around five times as likely to suffer complete tooth loss than those who completed Year 10 or more of schooling (4.1%).
- Adults without dental insurance (9.4%) were around three times as likely to suffer complete tooth loss than those with dental insurance (3.1%)

[The data for this section was presented in Healthy mouths Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

Healthy mouths across Australia

In this section measures of oral health status in adults aged 15 years and over, such as periodontal disease and tooth retention and loss, are compared across states and territories. Data presented were sourced from the National Survey of Adult Oral Health 2004–06 (Slade et al. 2007; AIHW 2008a–h).

The measure of oral health status with the greatest variation between states and territories was complete tooth loss, with around four times as many adults with complete tooth loss in Tasmania (10.0%) than in the Northern Territory (2.4%)

Explore the data for Healthy mouths by state and territory further here:

[The data for this section was presented in Healthy mouths Interactive 6 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

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Healthy lives

As described in the Introduction, oral health can impact an individual's general health and wellbeing. Good oral functioning enables comfortable participation in everyday activities.

Key terms

- **Dentate:** having one or more natural teeth.
- **Edentulous:** A state of complete loss of all natural teeth.
- **Incidence:** The number of new cases (of an illness or injury) occurring during a given period.
- **Burden of disease (and injury):** The quantified impact of a disease or injury on a population, using the disability-adjusted life years (DALY) measure. Referred to as the 'burden' of the disease or injury in this report.
- **DALY (disability-adjusted life years):** Measure (in years) of healthy life lost, either through premature death defined as dying before the expected life span at the age of death (YLL) or, equivalently, through living with ill health due to illness or injury (YLD).
- **Fatal burden:** The burden from dying 'prematurely' as measured by years of life lost. Often used synonymously with YLL, and also referred to as 'life lost'.
- **YLL (years of life lost):** Years of life lost due to premature death, defined as dying before the ideal life span at the age of death. YLL represent fatal burden.
- **Non-fatal burden:** The burden from living with ill health as measured by years lived with disability. Often used synonymously with YLD, and also referred to as 'health lost'.
- **YLD (years lived with disability):** A measure of the years of what could have been healthy but were instead spent in states of less than full health. YLD represent non-fatal burden.
- **International Classification of Diseases (ICD):** The World Health Organization's internationally accepted classification of diseases and related health conditions. The tenth revision, Australian modification (ICD-10-AM) is currently in use in Australian hospitals for admitted patients.
- **Relative survival:** The ratio of observed survival of a group of persons diagnosed with cancer to expected survival of those in the corresponding general population after a specified interval following diagnosis (such as 5 or 10 years).

Social impacts of poor oral health

Measures of social impact give insight into the effect of oral conditions on day-to-day living from the individual's perspective. Experience of social impact reflects not only the level of oral disease experienced, but also whether that disease had been treated in a timely fashion. The following data were sourced from the 2013 National Dental Telephone Interview Survey in which people are asked about their experience of toothache, how they feel about their dental appearance and whether or not they avoid eating certain foods (AIHW 2016b).

Experience of toothache

Around 1 in 6 (16%) dentate adults aged 15 years and over had experienced toothache in the previous 12 months

The proportion of adults aged 15 years and over who experienced toothache in the previous 12 months was:

- higher for those whose annual household income was less than \$30,000 (24%) than those whose annual household income was \$140,000 or more (9%)
- higher for those eligible for public dental care (20%) than those ineligible for public dental care (15%)
- higher for those from *Remote and very remote* areas (22%) than those from *Inner regional* areas (15%)
- lower for people with dental insurance (12%) than those without dental insurance (20%).

Uncomfortable with dental appearance

Around 1 in 4 (27%) dentate adults aged 15 years and over had felt uncomfortable about their dental appearance in the previous 12 months

The proportion of adults aged 15 years and over who had felt uncomfortable about their dental appearance in the previous 12 months was:

- lower for males (23%) than females (31%)
- higher for dentate adults (27%) than edentulous adults (22%)
- higher for those whose annual household income was less than \$30,000 (33%) than those whose annual household income was \$140,000 or more (18%)
- higher for those eligible for public dental care (33%) than those ineligible for public dental care (25%)
- lower for people with dental insurance (23%) than those without dental insurance (31%).

Food avoidance

Around 1 in 5 (21%) dentate adults aged 15 years and over had avoided eating certain foods in the previous 12 months due to problems with their teeth

The proportion of adults aged 15 years and over who had avoided eating certain foods in the previous 12 months due to problems with their teeth was:

- lower for males (18%) than females (24%)
- higher for edentulous adults (34%) than dentate adults (20%)

- higher for those whose annual household income was less than \$30,000 (32%) than those whose annual household income was \$140,000 or more (11%)
- higher for those eligible for public dental care (29%) than those ineligible for public dental care (18%)
- lower for people with dental insurance (17%) than those without dental insurance (25%).

The data for this section was presented in Healthy lives Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

Social impact trends

The proportion of adults aged 15 years and over reporting any oral health impact in the previous 12 months fluctuated between surveys, but generally increased over the period from 1994 (31%) to 2013 (39%)

Similar trends were observed over the same time period for:

- experience of toothache
- feeling uncomfortable with dental appearance
- avoiding certain foods.

The proportion of children aged 5–14 years reporting any oral health impact in previous 12 months fluctuated between surveys, and ranged between 10% in 2002 to 16% in 2005; in 2013, the proportion was 15%

Similar trends were observed over the same time period for:

- experience of toothache
- avoiding certain foods.

The data for this section was presented in Healthy lives Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Burden of disease

Oral disorders cause very few deaths, yet are highly prevalent in the Australian community. The Australian Burden of Disease Study 2011 (AIHW 2016a) estimated the burden of dental caries and pulpitis, periodontal disease and severe tooth loss (fewer than 10 teeth).

In 2011, oral disorders made up 2.2% of total health burden, 0.02% of all fatal burden and 4.4% of all non-fatal burden

The data presented in Interactive 3 reflects the progression of untreated dental disease across the life stages:

- The relative proportion of non-fatal burden due to dental caries decreased with age from 99% in children aged 0–14 years to 7% in those aged 85 and over.
- The vast majority of non-fatal burden in people aged 85 years and over was due to severe tooth loss (78%).

The data for this section was presented in Healthy lives Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

Oral cancers

Cancer was the leading cause of total disease burden in Australia in 2011(AIHW 2017). Treatment can be more effective when cancer is detected early, and dental practitioners play an important role in this. Cancer of the lip, tongue, mouth, salivary glands and oropharynx (ICD-10 C00-C10) are those cancers that are detectable in an oral examination by a dental practitioner. Early detection is one of the factors associated with better cancer survival.

Five-year relative survival is used as a proxy measure of early detection because population-level data on the stage at diagnosis of oral cancers are not currently available. Five-year relative survival statistics for selected oral cancers are presented here.

In 2013, there were 3,277 cases of selected oral cancers, including 1,047 cases of lip cancer making it the most common oral cancer in this group.

- In Australia, the 5-year relative survival in 2009–2013 for all selected oral cancers was 74%, compared to 68% for all cancers combined.
- In 2009–2013, the 5-year relative survival for selected oral cancers varied from 58.8% for mouth cancer to 92.9% for lip cancer.
- Between 1984–1988 and 2009–2013, the 5-year relative survival for lip cancer remained relatively unchanged, and improved for mouth and tongue cancer.

The data for this section was presented in Healthy lives Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

The data for this section was presented in Healthy lives Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.

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Preventative strategies

The goal of Australia's National Oral Health Plan 2015–2024 (COAG Health Council 2015) is to improve the oral health status and reduce the burden of poor oral health across the Australian population. The Plan outlines national strategic directions at both the population and individual level, across six Foundation Areas, the first being oral health promotion. Key strategies of this Foundation Area include:

- extending access to the preventive effects of fluoride
- broadening the availability of evidence-based oral health promotion programs
- strengthening and embedding nutrition and oral health policies in key settings, for example early childhood education.

Key terms

- **Fluoride:** a naturally occurring trace mineral that helps to prevent tooth decay.
- **Water fluoridation:** the process of adjusting the amount of fluoride in drinking water.
- **Fissure sealants:** materials applied to the pits and fissure surfaces of teeth to create a thin barrier, which protect the sealed surfaces from caries.

Toothbrushing

Brushing your teeth twice per day with a fluoridated toothpaste is effective in preventing tooth decay. Tooth brushing with a fluoridated toothpaste mechanically removes and controls the build-up of plaque, and applies fluoride to the teeth. The data presented in this section were sourced from the National Child Oral Health Study 2012–14 (Do & Spencer 2016).

Around two-thirds of children (69%) aged 5–14 years brushed their teeth at least twice a day with toothpaste

- Girls (71%) were more likely to have brushed their teeth at least twice a day with toothpaste than boys (66%).
- Indigenous children (54%) were less likely to brush their teeth twice a day with toothpaste than non-Indigenous children (70%).
- Children who last visited the dentist for a dental problem (65%) were less likely to brush their teeth twice a day with toothpaste than those who last visited for a check-up (73%).
- Children from high-income households (78%) were more likely to brush their teeth than children from low-income households (59%).

The data for this section was presented in Preventative strategies Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

Water fluoridation

Community water fluoridation is a safe strategy to improve oral health by reducing the risk of dental caries. The Australian Government National Health and Medical Research Council found that water fluoridation reduces tooth decay by 26% to 44% in children and adolescents, and by 27% in adults (NHMRC 2017).

Around 89% of the Australian population have access to fluoridated drinking water

- The proportion of the Australian population with access to fluoridated drinking water has increased over time from 69% in 2003, to 89% in 2017.
- Around 76% of the Queensland population has access to fluoridated water, whereas around 100% of the Australian Capital Territory's population has access to fluoridated water.

The data for this section was presented in Preventative strategies Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Fissure sealants in children

Due to their structure, the permanent teeth at the back of the mouth (molar teeth) can be difficult to keep clean. These molar teeth have many grooves (fissures) and pits on their surfaces that are susceptible to developing caries. Fissure sealants may be applied to teeth to create a thin barrier that protects the sealed surfaces from caries (Do & Spencer 2016). The data presented in this section were sourced from the National Child Oral Health Study 2012–14 (Do & Spencer 2016).

Around a quarter (27%) of children aged 6–14 years had at least one fissure sealant in their permanent teeth

- The proportion of children with at least one fissure sealant in their permanent teeth increased with age, ranging from 12% in 6–8 year olds, 28% in 9–11 year olds to 40% in 12–14 year olds.
- The proportion of children with at least one fissure sealed tooth varied across states and territories, ranging from 42% in Tasmania to 17% in New South Wales. Children in Tasmania had an average of 1.8 fissure sealed tooth surfaces per child.

The data for this section was presented in Preventative strategies Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

References

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Dental care

A dental visit can provide an opportunity for the provision of preventive dental care to maintain existing oral health, as well as treatment services that may reverse disease or rehabilitate the teeth and gums after damage occurs.

Key terms

- **Favourable dental visiting pattern:** visiting a dentist once or more a year (usually for a check-up) and having a usual dental provider.
- **Unfavourable dental visiting pattern:** visiting less than once every two years (usually for a problem), or visiting once every two years (usually for a problem) and without a regular dental provider.
- **Intermediate dental visiting pattern:** visiting classified as neither favourable or unfavourable.
- **Smoker status:** the extent to which a respondent was smoking at the time of interview. Full description in ABS Glossary.
- **Alcohol consumption:** assessed using the 2009 NHMRC guidelines for the consumption of alcohol.

Health service usage

The Australia-wide 2011–12 Australian Health Survey (ABS 2013) and the 2014–15 National Health Survey (ABS 2017), conducted by the Australian Bureau of Statistics (ABS), collected a range of information about the health of Australians including their use of health services such as consultations with dentists or other dental professionals. The data presented in this section were sourced from these two surveys.

In 2014–15, almost half (47%) of all Australians had consulted a dentist or dental professional in the last 12 months

In 2014–15, the proportion of people who had consulted a dentist or dental professional in the last 12 months was:

- higher for females (50%) than males (44%)
- higher for those from *Major cities* (49%) than for those from *Inner regional* (42%) and *Outer regional and remote* (42%) areas
- lower for those from the most disadvantaged areas (37%) than those from the least disadvantaged areas (60%) (according to SEIFA Index of Relative Socio-Economic Disadvantage)
- lower for those who exceeded lifetime risk alcohol consumption guidelines (45%) than those who did not exceed guidelines (51%)
- lower for current smokers (36%) than those who have never smoked (48%)
- lower in the Northern Territory (41%) than any other state or territory.

Results from the 2011–12 survey are also included in Dental care interactive 1 for comparison. Explore the data further here:

The data for this section was presented in Dental care Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

In 2014–15, around one-quarter of all Australians (26%) had last consulted a dentist or dental professional more than 2 years ago

- Around 1 in 5 (21%) children aged 2–14 years have never consulted a dentist or dental professional.
- Nearly half (46%) of adults aged 85 years and over last consulted a dentist or dental professional more than 2 years ago.

Results from the 2011–12 survey are also included in Dental care interactive 2 for comparison. Explore the data further here:

The data for this section was presented in Dental care Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Visiting a dental practitioner and dental visiting patterns

Data in this section were sourced from the 2013 National Dental Telephone Interview Survey (AIHW 2016).

Dental services

In 2013, dentate people aged 5 years and over, who made a dental visit in the last 12 months, made an average of 2.41 visits

- On average, each person had a scale and clean, around 2 in 3 had a filling and around 1 in 4 had an extraction.
- People in *Major cities* made, on average, 2.50 visits per year whereas people in *Outer regional* and *Remote and very remote* areas made, on average, 1.98 and 1.97 visits per year, respectively.
- People whose annual household income was less than \$30,000 had more fillings (0.91) and extractions (0.47) than those whose annual household incomes was more than \$30,000.
- The proportion of adults aged 15 years and over who received a filling gradually decreased from 0.90 in 1994 to 0.70 in 2013.

Reason for last visit

In 2013, 64% of dentate people aged 5 years and over, who made a dental visit in the previous 2 years, visited for a check-up

- The proportion of dentate people aged 5 years and over who last visited the dentist for a check-up decreased with age from 80% of 5–14 year olds to 53% of those aged 65 years and over.
- More people with dental insurance last visited the dentist for a check-up (70%) than those without dental insurance (56%).

- Fewer people whose annual household income was less than \$30,000 last visited the dentist for a check-up (48%) than those whose annual household income was more than \$30,000.
- The proportion of dentate adults aged 15 years and over whose last visit was for a check-up increased from 48% in 1994 to 61% in 2013.

Practice type at last visit

In 2013, 84% of dentate people aged 5 years and over, who made a dental visit in the previous 12 months, last visited a private dental practice

- Around 1 in 5 (21%) children aged 5–14 last visited a school dental service, and around 2 in 3 (64%) last visited a private dental practice.
- More people whose household income was less than \$30,000 last visited a public dental service (30%) than those whose annual household income was more than \$30,000.
- More people with dental insurance last visited a private dental practice (93%) than those without dental insurance (71%).
- The proportion of dentate children aged 5–14 year who last visited a school dental service more than halved over the period 1994 to 2013, from 54% to 21%.

Visiting patterns

In 2013, 44% of dentate people aged 18 years and over had a favourable dental visiting pattern

- More females (50%) aged 18 years and over had favourable dental visiting patterns than males (38%).
- More dentate adults aged 18 years and over ineligible for public dental care (47%) had favourable dental visiting patterns than those eligible for public dental care (35%).
- Around one-third (27%) of dentate adults aged 18 years and over without dental insurance had favourable dental visiting patterns compared with almost two-thirds (61%) of those with dental insurance.
- The proportion of dentate adults aged 18 years and over who had favourable dental visiting patterns increased from 36% in 1999 to 44% in 2013.

Explore the dental visiting data further in the three interactives here:

[The data for this section was presented in Dental care Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

Child Dental Benefits Schedule

The Child Dental Benefits Schedule (CDBS) commenced on 1 January 2014 and provides access to benefits for basic dental services to around 3 million eligible children (DoH 2018). Basic dental services includes examinations, x-rays, cleaning, fissure sealing, fillings, root canals and extractions (DoH 2018). A child

is eligible if they are aged between 2–17 years at any point in the calendar year, and receive a relevant Australian Government payment (DoH 2018). Eligible children have access to a benefit cap of \$1,000 over a two calendar year period (DoH 2018). The payment of benefits under the CDBS is administered through the Department of Human Services (DoH 2018).

In 2017, the Australian Government paid benefits of \$127,566,592 in respect of 2,393,380 preventive dental services across Australia, averaging \$53.30 in benefits per service

Explore the Child Dental Benefits Schedule data (DHS 2018) further here:

[The data for this section was presented in Dental care Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

Public dental waiting times

The AIHW compiles, on an annual basis, data on waiting times for adults who were placed on selected public dental waiting lists to enable monitoring of those waiting times. These data requirements are defined in the Public Dental Waiting Times (PDWT) National Minimum Data Set (NMDS) specification.

In 2018, the AIHW reported data at a state and territory level for the first 4 years (2013–14 to 2016–17) of the data collection (AIHW 2018). However, due to concerns about the comparability of the data and availability of data for some jurisdictions, the report presents the data for each jurisdiction separately, with no national data tables or comparisons between jurisdictions. The data show that some people wait a considerable time before receiving care (or an offer of care). Data from this report, and additional data for 2017–18, are presented in Dental care interactive 5 below.

The report also examines the factors underlying the lack of comparability and availability of data (primarily related to the different organisation and administration of public dental waiting lists across jurisdictions) ahead of a planned redevelopment of the data set.

[The data for this section was presented in Dental care Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

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Hospitalisations

Two measures of dental services provided in hospitals are reported in this section:

- potentially preventable hospitalisations (PPHs)
- hospitalisations for dental procedures requiring general anaesthetic.

There is some overlap between these two indicators. Many PPHs will require a general anaesthetic. However, not all dental care provided under general anaesthetic is for potentially preventable care.

Key terms

- **Potentially preventable hospitalisations—acute:** conditions that may not be preventable, but theoretically would not result in hospitalisation if adequate and timely care (usually non-hospital) was received.
- **Separations:** The total number of episodes of care for admitted patients, which can be the total hospital stays (from admission to discharge, transfer or death) or portions of hospital stays beginning or ending in a change of type care (for example, from acute to rehabilitation) that cease during a reference period. METeOR identifier: 270407
- **Separation rate:** The total number of episodes of care for admitted patients divided by the total number of persons in the population under study. Often presented as a rate per 1,000 or 10,000 members of a population. Rates may be crude or standardised.

Potentially preventable hospitalisations

Reducing the rates of potentially preventable hospitalisations (PPHs) due to dental conditions is one of the Key Performance Indicators of the National Oral Health Plan 2015–2024 (COAG Health Council 2015). Hospital separation rates for PPHs provide important information about the extent to which timely and adequate non-hospital dental care has been provided. The rate of PPHs for dental conditions is influenced by a number of factors including:

- adequacy of preventive and primary care services
- prevalence of severe dental disease in the community
- availability and accessibility of appropriate community and hospital-based services (COAG Health Council 2015).

In Australia, the age-standardised rate of potentially preventable hospitalisations due to dental conditions (per 1,000 population) remained relatively stable between 2010–11 and 2016–17, ranging from 2.8 to 2.9 per 1,000 population.

- In 2016–17, the age-standardised rate of potentially preventable hospitalisations due to dental conditions (per 1,000 population) was highest in South Australia (4.1 per 1,000 population) and lowest in the Australian Capital Territory (2.1 per 1,000 population).

Explore the number or rate of potentially preventable hospitalisations due to dental conditions across Australia between 2010–11 and 2016–17 using the Hospitalisations interactive 1 below.

The data for this section was presented in Hospitalisations Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

In 2016–17, the rate of potentially preventable hospitalisations due to dental conditions (per 1,000 population) was higher for Indigenous people (4.6 per 1,000 population) than for Other Australians (2.8 per 1,000 population)

- In 2016–17, the rate of potentially preventable hospitalisations due to dental conditions (per 1,000 population) was highest in those aged 5–9 years (9.5 per 1,000 population).
- In 2016–17, the rate of potentially preventable hospitalisations due to dental conditions (per 1,000 population) increased as remoteness increased, ranging from 2.8 per 1,000 population in *Major cities* to 4.2 per 1,000 population in *Very remote areas*.

Explore the number or rate of potentially preventable hospitalisations due to dental conditions by selected characteristics using the Hospitalisations interactive 2 below.

The data for this section was presented in Hospitalisations Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Dental procedures requiring general anaesthetic

Some Australians receive dental care under general anaesthesia, usually due to the severity of the disease or other medical, physical or behavioural complications. Dental care under general anaesthetic carries an additional risk and is resource intensive.

In Australia, the age-standardised rate of hospital separations for dental conditions requiring general anaesthetic (per 1,000 population) remained relatively stable between 2010–11 and 2016–17, ranging from 5.7 to 5.9 per 1,000 population.

- In 2016–17, the age-standardised rate of hospital separations for dental conditions requiring general anaesthetic (per 1,000 population) was highest in Western Australia (7.5 per 1,000 population) and lowest in the Australian Capital Territory (3.4 per 1,000 population).

Explore the number or rate of hospital separations for dental procedures requiring general anaesthetic across Australia between 2010–11 and 2016–17 using the Hospitalisations interactive 3 below.

The data for this section was presented in Hospitalisations Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

In 2016–17, the rate of hospital separations for dental procedures requiring general anaesthetic (per 1,000 population) was highest in those aged 15–24 years (15.7 per 1,000 population)

- In 2016–17, the rate of hospital separations for dental procedures requiring general anaesthetic (per 1,000 population) was lower in those from *Very remote* areas (4.6 per 1,000 population) compared with all other areas.

Explore the number or rate of hospital separations for dental procedures requiring general anaesthetic by selected characteristics using the Hospitalisations interactive 4 below.

The data for this section was presented in Hospitalisations Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

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Prescribing

The Commonwealth government subsidises the cost of prescription medicines through two separate schemes, the Pharmaceutical Benefits Scheme (PBS) and the Repatriation Pharmaceutical Benefits Scheme (RPBS) for eligible war veterans and their dependants. Medicines available under the PBS/RPBS and conditions of prescribing are listed in the Schedule of Pharmaceutical Benefits. Most of the listed medicines are prescribed by doctors, but other health professionals such as dentists are also eligible to prescribe. Dentists are not able to prescribe general PBS items, but have a separate Dental Schedule from which they can prescribe dental care medicines for their patients (Department of Health 2019a).

The following PBS/RPBS data relate to dental prescriptions, categorised by the Anatomical Therapeutic Chemical (ATC) Classification System as listed in the PBS Schedule.

It is important to highlight that some medications (such as codeine with paracetamol and ibuprofen) were also available over the counter between 2013 and 2017. Therefore data for these medicines will be incomplete as over the counter sales are not captured in the PBS/RPBS data. Also, people may be prescribed medications for dental conditions by other health professionals (e.g. GPs) that are not captured under the Dental Schedule.

Key terms

- **Pharmaceutical Benefits Scheme (PBS):** A national, government-funded scheme that subsidises the cost of a wide range of pharmaceutical drugs for all Australians to help them afford standard medications. The Schedule of Pharmaceutical Benefits lists all the medicinal products available under the PBS and explains the uses for which they can be subsidised.
- **Repatriation Pharmaceutical Benefits Scheme (RPBS):** An Australian government scheme, subsidised by the Department of Veterans' Affairs (DVA), that provides a range of pharmaceuticals and wound dressings at a concessional rate for the treatment of eligible veterans, war widows and widowers and their dependants.
- **Dental prescriptions:** Dental care medicines listed on the Dental Schedule of Pharmaceutical Benefits that have been prescribed by dentists for their patients and supplied by pharmacies.
- **ATC:** The Anatomical Therapeutic Chemical (ATC) Classification System is used for the classification of active ingredients of drugs according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties.
- The 10 most commonly dispensed dental prescriptions are categorised by ATC as follows:
 - J01:** Antibacterials for systemic use: amoxicillin, amoxicillin with clavulanic acid, cephalexin, clindamycin, erythromycin, metronidazole and phenoxymethylpenicillin.
 - M01:** Antiinflammatory and antirheumatic products: ibuprofen.
 - N02:** Analgesics: codeine with paracetamol.

Number of dental prescriptions dispensed

Over 1 million dental prescriptions were dispensed in Australia each year (2013–2017)

- The number of dental prescriptions dispensed in Australia each year has decreased in recent years—from 1.09 million in 2013 to 1.03 million in 2017.

Explore the data using the Prescribing interactive 1 below.

The data for this section was presented in Prescribing Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

Ten most commonly dispensed dental prescriptions

The 10 most commonly dispensed medicines accounted for 98% of all dental prescriptions dispensed in 2017

- Amoxicillin was the most commonly dispensed medicine during the period 2013–2017, accounting for just over half of all dental items dispensed each year.
- Amoxicillin was dispensed just over 524,000 times in Australia in 2017.
- The second most commonly dispensed medicine during the period 2013–2017 was codeine with paracetamol, accounting for around one-sixth of dental items dispensed each year.
- Codeine with paracetamol was dispensed around 171,000 times in Australia in 2017.

Explore the data using the Prescribing interactive 2 below.

The data for this section was presented in Prescribing Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Characteristics of patients dispensed dental prescriptions

Most dental prescriptions were dispensed to females (2013–2017)

- In 2017, more dental prescriptions were dispensed to females (around 514,000 or 50%) than males (around 461,000 or 45%).

Most dental prescriptions were dispensed to patients aged 45–64 years (2013–2017)

In 2017, the number of dental prescriptions dispensed to patients was:

- highest for those aged 45–64 years (around 347,000 or 34%)

- lowest for those aged 0–4 years (around 3,000 or 0.3%).

PBS patients fall into two broad categories: general and concessional. Concessional patients include Pensioner Concession Card holders, Commonwealth Seniors Health Card holders, Health Care Card holders and DVA Pension Card holders. General patients do not hold any of the aforementioned cards. RPBS (or repatriation) patients hold DVA White, Gold or Orange Cards (Department of Health 2019b)

Most dental prescriptions were dispensed to general patients (2013–2017)

- In 2017, around 361,000 (35%) dental prescriptions were dispensed to concessional patients and around 660,000 (64%) dental prescriptions were dispensed to general patients.
- In 2017, around 8,400 (1%) dental prescriptions were dispensed to repatriation patients.

Explore the data using the Prescribing interactive 3 below.

The data for this section was presented in Prescribing Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

References

Department of Health 2019a. The Pharmaceutical Benefits Scheme: Dental Items. Canberra: Department of Health. Viewed 7 January 2019.
<<http://www.pbs.gov.au/browse/dental>>

Department of Health 2019b. The Pharmaceutical Benefits Scheme. Canberra: Department of Health. Viewed 7 January 2019.
<<http://www.pbs.gov.au/pbs/home>>

Patient experience

Data presented in this section were sourced from the Australian Bureau of Statistics (ABS) Patient Experience Survey 2017–18 (ABS 2018). Patient experience surveys obtain patients' views and observations on aspects of health care services they have received. This includes their views on the accessibility of services and the physical environment, and aspects of the patient-clinician interaction.

This kind of information can be very useful for health services and others who are interested in driving continuous improvement in health services. Australia's National Oral Health Plan 2015–2024 (COAG 2015) is underpinned by four guiding principles, including that services be accessible to all who need them, with respect for individuals needs and views.

Key terms

- **Dental professional:** Includes dentists, dental hygienists and dental specialists such as periodontists, orthodontists and oral and maxillofacial surgeons.
- **Index of Relative Socio-economic Disadvantage:** This is one of four Socio-Economic Indexes for Areas (SEIFAs) compiled by the ABS following each Census of Population and Housing. This index summarises attributes such as low income, low educational attainment, unemployment, jobs in relatively unskilled occupations and dwellings without motor vehicles. The first (or lowest) quintile refers to the most disadvantaged areas, while the fifth (or highest) quintile refers to the least disadvantaged areas.
- **Long term health condition:** A condition that has lasted or is likely to last six months or more. Refer to Glossary for further information.
- **Self-assessed health:** A person's impression of their own health against a five-point scale from excellent through to poor.

Use of dental services

In 2017–18, 1 in 2 (50%) Australians aged 15 years and over saw a dental professional in the last 12 months

- The proportion of adults aged 15 years and over who saw a dental professional in the last 12 months remained relatively stable throughout the period 2011–12 to 2017–18, at around half of all adults.

In 2017–18:

- more females (54%) than males (46%) saw a dental professional
- people who self-assessed their health as fair/poor (43%) were less likely to have seen a dental professional than those who self-assessed their health as excellent/very good/good (51%)
- people living in areas of least socio-economic disadvantage (61%) were more likely to have seen a dental professional than those living in areas of most disadvantage (40%)

- people living in *Major cities* (52%) were more likely to have seen a dental professional than those living in *Outer regional, Remote and very remote areas* (44%).

Explore the data using the Patient experience interactive 1 below.

The data for this section was presented in Patient experience Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

Need for dental services

Each year, around 6 in 10 Australians aged 15 years and over needed to see a dental professional in the last 12 months (2011–12 to 2017–18)

In 2017–18, 60% of Australians aged 15 years and over reported that they needed to see a dental professional in the last 12 months. Most people who needed to, saw a dental professional (84%), with more than half of those seeing a dental professional 2 or more times (59%).

Explore the data using the Patient experience interactive 2 below.

The data for this section was presented in Patient experience Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

In 2017–18, females (64%) were more likely than males (55%) to have needed to see a dental professional in the last 12 months

In 2017–18:

- people aged 55–64 years (64%) were more likely to have needed to see a dental professional than any other age group
- people living in *Major cities* (61%) were more likely to have needed to see a dental professional than those living in *Inner regional* (57%) and *Outer regional, Remote and very remote areas* (55%)
- people living in areas of least disadvantage (68%) were more likely to have needed to see a dental professional than those living in areas of most disadvantage (52%)
- people with long-term health conditions (63%) were more likely to have needed to see a dental professional than those without long-term health conditions (56%).

Explore the data using the Patient experience interactive 3 below.

The data for this section was presented in Patient experience Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

In 2017–18, people living in areas of most disadvantage were more likely to report that they needed to see a dental professional but did not (22%) than those living in areas of least disadvantage (9.8%)

In 2017–18:

- people aged 25–34 years (21%) were more likely to have needed to but not seen a dental professional than any other age group
- people living in *Major cities* (86%) were more likely to have needed to and seen a dental professional than those living in *Inner regional* (79%) and *Outer regional, Remote and very remote areas* (80%)
- people who self-assessed their health as excellent/very good/good (85%) were more likely to have needed to and seen a dental professional than those who self-assessed their health as fair/poor (74%).

Explore the data using the Patient experience interactive 4 below.

The data for this section was presented in Patient experience Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

Experience of dental services

In 2017–18, around 9 in 10 (88%) adults aged 15 years and over thought their dental professional always showed respect

Adults aged 15 years and over were asked about their experience with dental professionals who they had seen in the last 12 months. In 2017–18:

- around 9 in 10 (88%) thought their dental professional always spent enough time with them
- most thought their dental professional always listened carefully (85%)
- around 1 in 8 (13%) received public dental care
- around 1 in 5 (18%) delayed or did not see a dental professional when needed due to cost.

Explore the data using the Patient experience interactive 5 below.

The data for this section was presented in Patient experience Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.

References

ABS (Australian Bureau of Statistics) 2018. Patient experiences in Australia: Summary of Findings, 2017–18. Cat. no. 4839.0. Canberra: ABS. Viewed 7 January 2019.

COAG (Council of Australian Governments) Health Council 2015. Healthy Mouths, Healthy Lives: Australia's National Oral Health Plan 2015–2024. Adelaide: South Australian Dental Service.

Costs

Many Australians face financial barriers in accessing dental services (COAG 2015). Overall, individuals directly fund a significant proportion of total expenditure on dental services (58% in 2016–17).

Key terms

- **Household:** from ABS Explanatory Notes
- **Constant prices:** Constant price expenditure adjusts current prices for the effects of inflation—that is, it aims to remove the effects of inflation. For further explanation refer to the Glossary in Health expenditure Australia 2016–17.
- **Dental services:** Services that registered dental practitioners provide. These include oral and maxillofacial surgery items, orthodontic, pedodontic and periodontic services, cleft lip and palate services, dental assessment and other dental items listed in the MBS. The term covers dental services funded by health funds, state and territory governments and also individuals' out-of-pocket payments.
- **General inflation:** The rise in the general price level of goods and services in the economy.

Expenditure

Dental services expenditure data presented in this section are derived from AIHW analysis of the Health Expenditure Database.

Overall, \$10.2 billion was spent on dental services in 2016–17

- Recurrent expenditure on dental services in Australia was \$10.2 billion in 2016–17, up from \$6.6 billion in 2006–07, adjusted for inflation.
- Total expenditure on dental services increased every year from 2006–07 to 2016–17, at an average annual growth rate of 4.4%.
- Australian Government expenditure on dental services steadily increased from \$551 million in 2006–07 to \$1,717 million in 2011–12, before falling to \$1,273 million in 2013–14. Expenditure then increased again to just over \$1,500 million annually in the period 2014–15 to 2016–17.
- Non-government expenditure on dental services increased steadily overall, from \$5,411 million in 2006–07 to \$7,799 million in 2016–17.

Explore the data using the Costs interactive 1 below.

[The data for this section was presented in Costs Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

In 2016–17, per capita expenditure on dental services was \$416

- Per capita expenditure on dental services steadily increased from \$319 in 2006–07 to \$416 in 2016–17, adjusted for inflation.

- Per capita expenditure on dental services by the non-government sector increased from \$262 in 2006–07 to \$320 in 2016–17, adjusted for inflation. This represents an average annual growth rate of 2.0%.
- Between 2006–07 and 2016–17, Australian Government per capita expenditure on dental services increased from \$27 to \$62, at an average annual growth rate of 8.8%.
- State/territory and local government per capita expenditure fluctuated during the period 2006–07 to 2016–17, ranging from \$29 in 2012–13 to \$36 in 2008–09 and 2010–11. Across the period, expenditure grew at an average annual rate of 1.5%.

Explore the data using the Costs interactive 2 below.

The data for this section was presented in Costs Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Household expenditure

Data presented in this section was sourced from the 2003–04, 2009–10 and 2015–16 Australian Bureau of Statistics (ABS) Household Expenditure Survey (HES) (ABS 2006; ABS 2011; ABS 2017). The ABS HES collects information on household expenditure patterns using variables such as income levels, sources, employment, family kinship, age and geographic location, to help provide a better understanding on living standards and economic wellbeing of Australians.

On average, Australians spent \$7.62 per week on dental fees in 2015–16

- In 2015–16, Australians spent an average of \$7.62 per week on dental fees, compared to \$5.74 in 2003–04 and \$7.23 in 2009–10.
- Residents of the Australian Capital Territory spent an average of \$13.73 per week on dental fees in 2015–16, more than any other jurisdiction.
- In 2015–16, South Australian residents spent an average of \$5.88 per week on dental fees, less than any other jurisdiction.

Explore the data using the Costs interactive 3 below.

The data for this section was presented in Costs Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

Financial barriers

Data in this section were sourced from the National Dental Telephone Interview Survey, 2013. Respondents were asked a range of questions relating to the financial burden of dental care.

People who avoided or delayed visiting a dentist due to cost

Around one-third (32%) of people aged 5 years and over avoided or delayed visiting a dentist due to cost.

- Females had higher rates of avoidance due to cost than males, 34% compared to 29%.
- People with insurance had lower rates of avoidance due to cost than those without insurance, 20% and 44% respectively.
- People ineligible for public dental care (29%) were more likely than those eligible for public dental care (38%) to avoid or delay visiting a dentist due to cost.
- Those in the lowest annual household income group (41%) had higher rates of avoiding or delaying a visit to a dentist due to cost than those in the highest annual household income group (17%).
- There was an overall increase in the proportion of adults aged 15 years and over who avoided or delayed visiting a dentist due to cost between 1994 and 2013, from 25% to 35%.

People who reported that cost prevented recommended dental treatment

Around 1 in 5 (20%) people aged 5 years and over who visited a dentist in the last 12 months reported that cost prevented recommended dental treatment

- Cost was less likely to prevent recommended dental treatment for children aged 5–14 years (6.0%) than for adults aged 25–44 years (28%).
- Adults aged 25–44 years and 45–64 years were the most likely to not receive recommended dental treatment due to cost, 28% and 26% respectively.
- People without insurance (25%) were more likely to report that cost prevented recommended dental treatment than those with insurance (16%).
- People eligible for public dental care (23%) reported higher rates of cost preventing recommended dental treatment than those ineligible for public dental care (18%).
- Those people in the lowest annual household income group (28%) were more likely to report that cost prevented recommended dental treatment than those in the highest annual household income group (11%).
- The proportion of people who visited a dentist in the previous 12 months and reported that cost prevented recommended dental treatment fluctuated between 1994 and 2013.

People stating dental visits were a large financial burden

Around 1 in 8 (12%) people aged 5 years and over reported that dental visits placed a large financial burden on them

- Females (13%) were more likely to report that dental visits were a large financial burden than males (10%).
- People aged 45–64 years (16%) were more likely to report that dental visits were a large financial burden than any other age group.
- Across remoteness areas, those living in *Remote and very remote* areas (5.3%) were less likely to report that dental visits were a large financial

burden than those living in *Outer regional* (9.6%), *Inner regional* (12%) and *Major cities* (12%).

- People with insurance were less likely to report that dental visits were a large financial burden (10%) than those without insurance (14%).
- Those people eligible for public dental care (13%) were more likely to report that dental visits were a large financial burden than those ineligible for dental care (11%).
- The proportion of people reporting that dental visits were a large financial burden was higher for people in the lowest two annual household income groups (both 15%) than those in the highest annual household income groups (6.6%).
- The proportion of adults aged 15 years and over who visited a dentist in the previous 12 months and reported that dental visiting was a large financial burden fluctuated from 9.8% in 1994, to 14% in 1999 and 12% in 2013.

People who stated they would have a lot of difficulty paying for a basic preventive visit

Around 3 in 10 (28%) people aged 18 years and over stated they would have difficulty in paying a \$200 dental bill

- The proportion of females (34%) reporting difficulty in paying for a basic preventive visit was greater than the proportion of males (23%).
- More than twice as many people without insurance (40%) stated they would have difficulty paying for a basic preventive visit than those with insurance (17%).
- Around twice as many people eligible for public dental care (46%) stated they would have difficulty paying for a basic preventive visit than those ineligible for public dental care (22%).
- Around 1 in 2 (54%) of those people in the lowest annual household income group reported they would have difficulty in paying for a basic preventive visit compared to around 1 in 10 (9.9%) of those people in the highest annual household income group.

Explore the data using the Costs interactives 4 and 5 below.

The data for this section was presented in Costs Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

The data for this section was presented in Costs Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.

References

ABS (Australian Bureau of Statistics) 2006. Household expenditure survey, Australia: Detailed Expenditure Items, 2003–04 (Reissue). Cat. no. 6535.0.55.001. Canberra: ABS. Viewed 7 January 2019.

ABS (Australian Bureau of Statistics) 2011. Household expenditure survey, Australia: summary of results, 2009–10. Cat. no. 6530.0. Canberra: ABS. Viewed 7 January 2019.

ABS (Australian Bureau of Statistics) 2017. Household expenditure survey, Australia: summary of results, 2015–16. Cat. no. 6530.0. Canberra: ABS. Viewed 7 January 2019.

AIHW (Australian Institute of Health and Welfare): Chrisopoulis S, Harford JE & Ellershaw A 2016. Oral health and dental care in Australia: key facts and figures 2015. Cat. No. DEN 229. Canberra: AIHW.

COAG (Council of Australian Governments) Health Council 2015. Healthy Mouths, Healthy Lives: Australia's National Oral Health Plan 2015–2024. Adelaide: South Australian Dental Service.

Private health insurance

In Australia, the private health insurance system is based on individuals or families purchasing an insurance policy that covers all or part of the cost of private health care. Private health insurance cover is generally divided into hospital cover, general treatment cover and ambulance cover. General treatment cover provides insurance against costs of treatment by ancillary health service providers, including dentists. The extent of cover depends on the type of policy purchased.

Key terms

- **Dentate:** Having one or more natural teeth.
- **Edentulous:** A state of complete loss of all natural teeth.
- **Constant prices:** Constant price expenditure adjusts current prices for the effects of inflation— see Glossary in Health expenditure Australia 2016–17.

Private health insurance cover for dental expenses

Data in this section were sourced from the National Dental Telephone Interview Survey 2013 (AIHW 2016). This section reports the proportion of Australians who held private health insurance cover for dental expenses at the time of the survey.

Half (50%) of all people aged 5 years and over had some level of private health insurance cover for dental expenses

The proportion of people aged 5 years and over with some level of private health insurance cover for dental expenses was:

- higher for adults aged 45–64 (57%) than those aged 15–24 (44%)
- twice as high for dentate people (51%) than edentulous people (25%).

Explore the data using the Private health insurance interactive 1 below.

The data for this section was presented in Private health insurance Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.

Nearly twice as many dentate people aged 5 years and over ineligible for public dental care (58%) had some level of private health insurance cover for dental expenses than those eligible for public dental care (31%)

The proportion of dentate people aged 5 years and over with some level of private health insurance cover for dental expenses:

- was similar for males (50%) and females (52%)

- higher for those living in *Remote and very remote* areas (57%) than those living in *Major cities* (53%), *Inner regional* (45%) and *Outer regional* (44%) areas
- increased as annual household income increased, from 23% for those earning less than \$30,000 per year to 78% for those earning over \$140,000 per year.

Explore the data using the Private health insurance interactive 2 below.

The data for this section was presented in Private health insurance Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Around 3 in 4 (77%) adults aged 18 years and over reported that their insurance paid some of the dental expenses of their last visit

- Around 1 in 12 (8.5%) adults aged 18 years and over reported that their insurance paid all the dental expenses of their last visit.
- Around 1 in 10 (10%) adults aged 18 years and over reported they paid all their own dental expenses of their last visit.

Around 1 in 5 (19%) of insured adults aged 18 years and over who paid all their own dental expenses reported that dental care caused a large financial burden

- Around 1 in 25 (4.1%) of insured adults aged 18 years and over whose insurance paid all of the dental expenses reported that dental care caused a large financial burden.
- Around 1 in 10 (10%) of insured adults aged 18 years and over whose insurance paid some of the dental expenses reported that dental care caused a large financial burden.

Explore the data using the Private health insurance interactive 3 below.

The data for this section was presented in Private health insurance Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

Health expenditure by private health insurance funds

In 2016–17, 13.5 million Australians (55%) were covered by a general treatment policy (APRA 2018) and dental services attracted \$1.9 billion (12.0%) of expenditure by private health insurance funds (AIHW 2018).

Net benefits paid by private health insurance funds for dental services increased from \$1.6 billion in 2014–15 to \$1.9 billion in 2016–17

Explore the data using the Private health insurance interactive 4 below.

The data for this section was presented in Private health insurance Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

References

AIHW (Australian Institute of Health and Welfare): Chrisopoulis S, Harford JE & Ellershaw A 2016. Oral health and dental care in Australia: key facts and figures 2015. Cat. No. DEN 229. Canberra: AIHW.

Australian Institute of Health and Welfare 2018. Health expenditure Australia 2016–17. Health and welfare expenditure series no. 64. Cat. No. HWE 74. Canberra: AIHW.

APRA (Australian Prudential Regulation Authority) 2018. Private health insurance membership and coverage, September 2018. Sydney: APRA

Dental workforce

All dental practitioners must be registered with the Australian Health Practitioner Regulation Agency (AHPRA) to practise in Australia. There is a range of different types of registration to match different levels of training and experience. Most dental practitioners have general registration. General registration divisions include dentists, dental prosthetists, dental hygienists, oral health therapists and dental therapists. Dentists may also qualify and be eligible for specialist registration. There are 13 approved dental specialities in Australia (Dental Board of Australia 2018).

Data presented in this section were sourced from the National Health Workforce Dataset (NHWDS).

Key terms

- **Full-time equivalent (FTE) rate:** The FTE rate (number of FTE dental practitioners per 100,000 population) is a measure of supply. By defining supply in terms of the FTE rate, meaningful comparisons of supply can be made across geographic areas and over time.

Size and distribution of the dental workforce

Data on the size and distribution of the dental workforce is required to understand the current dental workforce and its capacity to meet the community's needs for prevention and treatment of oral disease.

The number of all registered dental practitioners in Australia has increased from 20,469 in 2013 to 22,042 in 2016

- The number of registered dentists in Australia has increased from 15,479 in 2013 to 16,549 in 2016.
- Around 9 in 10 of all dental practitioners registered in 2016 were employed in their field.
- The proportion of dentists employed in their field has remained relatively stable, ranging from 89% in 2013 to 91% in 2016.

Explore the data using the Dental workforce interactive 1 below.

[The data for this section was presented in Dental workforce Interactive 1 – refer to the corresponding worksheet in the Data tables file for the historical data.](#)

In 2016, the number of FTE dentists in Australia was 57.7 per 100,000 population

In 2016:

- Across jurisdictions, the Australian Capital Territory had the highest FTE rate of dentists (65.4), Tasmania had the highest FTE rate of dental prosthetists (9.1), South Australia had the highest FTE rate of dental hygienists (11.1)

and oral health therapists (7.9) and Western Australia had the highest FTE rate of dental therapists (7.5).

- Across remoteness areas, *Major cities* had the highest FTE rate of dentists (64.6), dental hygienists (5.6) and oral health therapists (5.1). *Inner regional* areas had the highest FTE rate of dental prosthetists (6.0) and *Remote and very remote areas* had the highest FTE rate of dental therapists (4.0).
- The FTE rate of dentists ranged from 39.3 in the Northern Territory to 65.4 in the Australian Capital Territory.
- The FTE rate of dentists ranged from 25.1 in *Remote and very remote areas* to 64.6 in *Major cities*.

Over time:

- The FTE rate of dentists in Australia ranged from 55.4 in 2013 to 57.7 in 2016.
- The FTE rate of oral health therapists in Australia has steadily increased from 3.2 in 2013 to 4.9 in 2016.

Explore the data using the Dental workforce interactive 2 below.

The data for this section was presented in Dental workforce Interactive 2 – refer to the corresponding worksheet in the Data tables file for the historical data.

Major cities had the highest FTE rate of dentists employed in the private sector (51.5) whilst *Remote and very remote areas* had the highest FTE rate of dentists employed in the public sector (8.4).

In 2016, the Australian Capital Territory had the highest FTE rate of dentists employed in the private sector (53.8) and the lowest FTE rate of dentists employed in the public sector (4.9) whilst the Northern Territory had the lowest FTE rate of dentists employed in the private sector (24.0) and the highest FTE rate of dentists employed in the public sector (11.9).

Explore the data using the Dental workforce interactive 3 below.

The data for this section was presented in Dental workforce Interactive 3 – refer to the corresponding worksheet in the Data tables file for the historical data.

Characteristics of employed dentists

Data presented in this section focuses on the characteristics of dentists employed in Australia.

In 2016, around 4 in 10 (41%) employed dentists were female

In 2016:

- Around 4 in 10 employed dentists worked part-time (39%).
- Around 1 in 5 were aged 30 years and less (21%).
- Around 1 in 4 employed dentists obtained their initial qualification in countries other than Australia and New Zealand (25%).

Explore the data using the Dental workforce interactive 4 below.

The data for this section was presented in Dental workforce Interactive 4 – refer to the corresponding worksheet in the Data tables file for the historical data.

In 2016, dentists employed in Australia predominantly worked in private practices

- In 2016, the majority of dentists worked in group private practices (8,262) or solo private practices (3,986) accounting for 84% of all employed dentists in Australia. This trend was similar across all jurisdictions.
- In 2016, 836 (5.7%) dentists worked in public clinics in Australia.

Explore the data using the Dental workforce interactive 5 below.

The data for this section was presented in Dental workforce Interactive 5 – refer to the corresponding worksheet in the Data tables file for the historical data.

Dental specialists

There are 13 approved dental specialties in Australia. All specialists must hold a qualification in the specialty and meet all the requirements for general registration as a dentist (Dental Board of Australia 2018).

In 2016, around 1 in 10 (10%) employed dentists were specialists

In 2016:

- The largest group of dental specialists in Australia were orthodontists (529) equivalent to 36% of all dental specialists.
- Around 3 in 4 (74%) dental specialists in Australia were male.

Explore the data using the Dental workforce interactive 6 below.

The data for this section was presented in Dental workforce Interactive 6 – refer to the corresponding worksheet in the Data tables file for the historical data.

References

Dental Board of Australia 2018. Melbourne: Australian Health Practitioner Regulation Agency. Viewed 18 December 2018.
<<http://www.dentalboard.gov.au/Registration.aspx>>.

Data sources

National Child Oral Health Study

The National Child Oral Health Study (NCOHS) provides a descriptive 'snapshot' of oral health in the child population of Australia. Data are collected from children aged 5–14 years, residing in all Australian states and territories. Information is collected using interviews and standardised dental examinations.

The study identified individual, family, community and dental system factors associated with oral health outcomes of Australian children and compares the oral health status of children across different aspects of the dental services system.

The NCOHS was last conducted in 2012–14. The National Oral Health Plan 2015–2024 calls for a population-based epidemiological study of the oral health of children to be conducted every 10 years.

National Survey of Adult Oral Health

The National Survey of Adult Oral Health (NSAOH) provides a descriptive 'snapshot' of oral health in the adult population of Australia.

The survey describes levels of oral disease, perceptions of oral health and patterns of dental care. Data are collected from a representative cross-section of people aged 15 years and over, residing in all states and territories of Australia. Information is collected using interviews and standardised dental examinations.

The National Oral Health Plan 2015–2024 calls for a population-based epidemiological study of the oral health of adults to be conducted every 10 years. The NSAOH was last conducted in 2004–06, and another is being conducted in 2017–18.

National Dental Telephone Interview Survey

The National Dental Telephone Interview Survey (NDTIS) is a telephone survey of a random sample of the Australian population aged 5 years and over. The survey collects oral health and dental care data, monitors the extent of social inequalities within the dental sector, and investigates the underlying reasons behind dental behaviours and the consequences of these behaviours.

Data collected included measures of self-reported oral health status, use of and access to dental services, social impact of oral health, financial burden of dental care and private health insurance that covered dental expenses. There is no clinical component to the survey.

The survey is conducted every 2–3 years. Surveys were conducted in 1994, 1996, 1999, 2002, 2005, 2008, 2010 and 2013.

Australian Cancer Database

The Australian Cancer Database contains information on all Australians diagnosed with cancer (excluding basal cell and squamous cell carcinomas of the skin) since 1982. Data are collected by state and territory cancer registries from

a number of sources and are supplied annually to the AIHW. The AIHW compiles and maintains the Australian Cancer Database, in partnership with the Australasian Association of Cancer Registries, which includes representatives from each state and territory cancer registry.

Australian Burden of Disease Study Database

The Australian Burden of Disease Study Database includes national and Indigenous burden of disease estimates for 2003 and 2011, including Years of life lost (YLL), Years lived with disability (YLD) and Disability-adjusted life years (DALY) for around 200 diseases included in the Australian Burden of Disease Study 2011. Subnational estimates (state/territory, remoteness and socioeconomic group) are available for 2011. National and Indigenous estimates of attributable burden due to the selected risk factors included in the study are available for 2003 and 2011. Data are available by 5 year age group and sex.

Australian Health Survey

The Australian Health Survey is the largest, most comprehensive health survey conducted in Australia. It combines:

- the National Health Survey (NHS)
- the National Nutrition and Physical Activity Survey (NNPAS); and
- the National Health Measures Survey (NHMS).

The 2011–12 National Health Survey (NHS) was conducted from a sample of approximately 15,600 private dwellings across Australia. Trained interviewers conducted personal interviews with selected residents in sampled dwellings. There was no clinical component to the survey.

The 2011–12 NHS collected information about:

- the health status of the population, including long-term health conditions experienced;
- health-related aspects of people's lifestyles, such as smoking, Body Mass Index, diet, exercise and alcohol consumption;
- the use of health services such as consultations with health practitioners and actions people have recently taken for their health; and
- demographic and socioeconomic characteristics.

National Health Survey

The 2014–15 National Health Survey (NHS) was conducted from a sample of approximately 14,700 private dwellings across Australia. Trained interviewers conducted personal interviews with selected residents in sampled dwellings. There was no clinical component to the survey

The 2014–15 NHS collected information about:

- the health status of the population, including long-term health conditions experienced;
- health-related aspects of people's lifestyles, such as smoking, Body Mass Index, diet, exercise and alcohol consumption;

- the use of health services such as consultations with health practitioners and actions people have recently taken for their health; and
- demographic and socioeconomic characteristics.

Public Dental Waiting Times National Minimum Data Set

The PDWT NMDS enables reporting on the length of time that patients wait for public dental care in Australia, and the characteristics of patients who receive care or who were listed for care in a reference period.

The scope of the collection is to capture some basic data about adults aged 18 years and over who are placed on general dental care, denture care or assessment public dental waiting lists in a specific collection year, or who were placed on a waiting list at any time and were offered or received care in the collection year. The waiting time periods calculated are the time between the date a person is placed on a waiting list and the date they are offered dental care, and the time between the date a person is placed on a waiting list and the date they receive dental care.

Child Dental Benefits Schedule data

The Child Dental Benefits Schedule (CDBS) provides individual benefits for a range of basic dental services to eligible children aged 2–17 years. Services can be provided in a public or private setting. Benefits are not available for orthodontic or cosmetic dental work and cannot be paid for any services provided in a hospital.

Payment of benefits under the Child Dental Benefits Schedule is administered by the Department of Human Services. Although the Child Dental Benefits Schedule is not part of Medicare, statistics are captured through the Medicare Benefits Schedule, and are available under Category 10 – Dental Benefit Schedule.

National Hospital Morbidity Database

The National Hospital Morbidity Database (NHMD) is a collection of records from admitted patient data collection systems in Australian hospitals. The data supplied in the NHMD are based on the National Minimum Data Set (NMDS) for Admitted patient care. The AIHW compiles the database from data supplied by the state and territory health authorities. It contains demographic, administrative and length of stay data, and data on the diagnoses of the patients, and the procedures they underwent in hospital. Principal diagnoses were recorded using the International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification (ICD-10-AM). Dental services are classified according to ACHI (Australian Classification of Health Interventions). ACHI is the Australian national standard for procedure and intervention coding in Australian hospitals.

Pharmaceutical Benefits Scheme (PBS) data collection

The Commonwealth government subsidises the cost of prescription medicines through two schemes, the Pharmaceutical Benefits Scheme (PBS) and the

Repatriation Pharmaceutical Benefits Scheme (RPBS) for eligible war veterans and their dependants.

People fall into two broad categories: general and concessional. Concessional beneficiaries include Pensioner Concession Card holders, Commonwealth Seniors Health Card holders, Health Care Card holders and DVA Pension Card holders. General patients do not hold any of the aforementioned cards. RPBS (or repatriation) patients hold DVA White, Gold or Orange Cards.

The Department of Human Services (DHS) processes all prescriptions dispensed under the PBS and RPBS and provides this data to the Department of Health. The PBS/RPBS data maintained by Health has been used to produce this report. Information collected includes the medication prescribed, the prescribing practitioner and characteristics of the person who is provided with the prescription. The figures reported relate to the number of prescriptions for PBS Schedule Dental Items processed by DHS in the reporting period

PBS/RPBS data does not include the following:

- private prescriptions, i.e. the medicine is not listed in the PBS Schedule of Pharmaceutical Benefits
- over the counter medicines
- medicines supplied to public hospital inpatients.

Patient Experience Survey

The Patient Experience Survey is conducted annually by the Australian Bureau of Statistics (ABS) and collects national data on access and barriers to a range of health care services, including dental professionals.

The survey includes data from people aged 15 years and over that accessed health services in the last 12 months, as well as from those who did not, and enables analysis of health service information in relation to particular population groups. Data are also collected on aspects of communication between patients and health professionals.

The 2017–18 Patient Experience Survey collected information from around 28,200 people across Australia.

Health Expenditure Database

Health expenditure data, collected and reported annually through AIHW's *Health expenditure Australia* report series (e.g. Health expenditure Australia 2016–17) includes estimates of expenditure on dental services—private and public—for state, territory and Australian governments.

The AIHW compiles its health expenditure database from a wide range of government and non-government sources. The data are mainly administrative in nature, though some survey information is included. Since 2008–09, the main source of government expenditure data has been the Government Health Expenditure National Minimum Data Set. This data set was developed with advice of the Health Expenditure Advisory Committee, and reporting is mandatory for all state and territory governments.

Total health expenditure excludes some types of health-related expenditure, including health-related Australian Defence Force expenditure, some local government expenditure and some non-government organisation expenditure.

Household Expenditure Survey

The Household Expenditure Survey (HES) is conducted by the Australian Bureau of Statistics (ABS) every six years. The survey collects detailed information about the expenditure, income and household characteristics from usual residents of private dwellings in urban and rural areas of Australia, covering about 98% of the people living in Australia. Average weekly expenditure on over 600 goods and services can be obtained from the survey.

The 2015–16 HES collected information from around 10,000 households over the period July 2015 to June 2016.

National Health Workforce Data Set (NHWDS)

The National Health Workforce Data Set combines data from the National Registration and Accreditation Scheme with data collected from the Dental Workforce Survey conducted at the time of a practitioner's annual registration or renewal. The Australian Health Practitioner Regulation Agency collects these data.

The data set includes information on the size and characteristics of the dental workforce (dentists, dental hygienists, dental therapists, dental prosthetists and oral health therapists) as well as:

- the type of work done by, and work setting of, dental practitioners
- the number of hours worked in clinical or non-clinical roles
- the numbers of years worked, and the years they intend to remain in, the dental practitioner workforce
- those registered dental practitioners who are not currently undertaking clinical work or who are not employed.

Technical notes

Socio-Economic Indexes for Areas (SEIFA), Australia, 2016

Socio-Economic Indexes for Areas (SEIFA) is a product developed by the ABS that ranks areas in Australia according to relative socio-economic advantage and disadvantage. The indexes are based on information from the five-yearly Census.

SEIFA 2016 is the latest version of this product and consists of four indexes: The Index of Relative Socio-economic Disadvantage (IRSD); The Index of Relative Socio-economic Advantage and Disadvantage (IRSAD); The Index of Education and Occupation (IEO); The Index of Economic Resources (IER).

Each index is a summary of a different subset of Census variables and focuses on a different aspect of socio-economic advantage and disadvantage.

Notes

The Oral health and dental care in Australia 20 March 2019 revision includes:

- An update to the Public Dental Waiting Times section in the Dental Care chapter.
- Addition of Prescribing chapter.
- Addition of Patient experience chapter.
- Addition of Costs chapter.
- Addition of Private health insurance chapter.
- Addition of Workforce chapter.